



MATHS

BOOKS - RD SHARMA MATHS (HINGLISH)

INDEFINITE INTEGRALS

Solved Examples And Exercises

1. Evaluate: $\int \frac{1}{\sin^3 x \cos x} dx$



Watch Video Solution

2. Evaluate: $\int \frac{x^2}{\sqrt{x-1}} dx$



[Watch Video Solution](#)

3. Evaluate: $\int \frac{x}{x^4 + 2x^2 + 3} dx$



[Watch Video Solution](#)

4. Evaluate: $\int \frac{\sec^2 x}{1 - \tan^2 x} dx$



[Watch Video Solution](#)

5. Evaluate: $\int \frac{e^x}{1 + e^{2x}} dx$



[Watch Video Solution](#)

6. $\int \frac{x}{\sqrt{x+a} - \sqrt{x+b}} dx$



[Watch Video Solution](#)

7. Evaluate: $\int \frac{\cos x}{\sin^2 x + 4\sin x + 5} dx$



[Watch Video Solution](#)

8. Evaluate: $\int \frac{e^x}{e^{2x} + 5e^x + 6} dx$



[Watch Video Solution](#)

9. Evaluate: $\int \frac{3x^5}{1 + x^{12}} dx$



[Watch Video Solution](#)

10. Evaluate: $\int \frac{x^2}{x^6 - a^6} dx$



[Watch Video Solution](#)

11. Evaluate: $\int \frac{\sec x \operatorname{cosec} x}{\log(\tan x)} dx$



Watch Video Solution

12. Evaluate the following integrals :

$$\int \frac{\cos x}{1 - \cos x} dx$$

OR

$$\int \frac{\cot x}{\operatorname{cosec} x - \cot x} dx$$



Watch Video Solution

13. Evaluate the following integrals : $\int \frac{1 - \cos 2x}{1 + \cos 2x} dx$



 [Watch Video Solution](#)

14. Evaluate the following integrals :

$$\int (\tan x + \cot x)^2 dx$$

 [Watch Video Solution](#)

15. Evaluate the following integrals :

$$\int \frac{5\cos^3 x + 6\sin^3 x}{2\sin^2 x \cos^2 x} dx$$

 [Watch Video Solution](#)

16. Evaluate the following integrals :

$$\int (\sec^2 x + \operatorname{cosec}^2 x) dx$$



[Watch Video Solution](#)

17. Evaluate the following integrals :

$$\int \frac{\sin^2 x}{1 + \cos x} dx$$



[Watch Video Solution](#)

18. Evaluate the following integrals :

$$\int \frac{5x^4 + 12x^3 + 7x^2}{x^2 + x} dx$$



 [Watch Video Solution](#)

19. Evaluate:

$$\int \frac{(\sin^{-1}x)^3}{\sqrt{1-x^2}} dx$$

 [Watch Video Solution](#)

20. Evaluate: $\int \frac{x \tan^{-1}x^2}{1+x^4} dx$

 [Watch Video Solution](#)

21. Evaluate: $\int \frac{x}{\left(\sqrt{x^2 + a^2} + \sqrt{x^2 - a^2}\right)} dx$

 [Watch Video Solution](#)

22. Evaluate: $\int \sqrt{\operatorname{cosec} x - 1} dx$

 [Watch Video Solution](#)

23. Evaluate: $\int \left(\frac{\sin(\log x)}{x}\right) dx$

 [Watch Video Solution](#)

24. Evaluate: $\int \left(\frac{\sin(\tan^{-1}x)}{1+x^2} \right) dx$

 [Watch Video Solution](#)

25. Evaluate: $\int \frac{1}{x^{\frac{2}{3}} \sqrt{x^{\frac{2}{3}} - 4}} dx$

 [Watch Video Solution](#)

26. Evaluate the following integrals: $\int \frac{\cos^2x - \sin^2x}{\sqrt{1 + \cos 4x}} dx$

 [Watch Video Solution](#)

27. Evaluate: $\int \frac{5\cos x + 6}{2\cos x + \sin x + 3} dx$



[Watch Video Solution](#)

28. Evaluate: $\int \frac{1}{p + q\tan x} dx$



[Watch Video Solution](#)

29. Evaluate: $\int \frac{(3\sin x - 2)\cos x}{5 - \cos^2 x - 4\sin x} dx$



[Watch Video Solution](#)

30. Evaluate: $\int \frac{e^{3x}}{4e^{6x} - 9} dx$



[Watch Video Solution](#)

31. Evaluate: $\int \frac{2x - 1}{(x - 1)^2} dx$



[Watch Video Solution](#)

32. Evaluate: $\int \frac{3 + 2\cos x + 4\sin x}{2\sin x + \cos x + 3} dx$



[Watch Video Solution](#)

33. Evaluate: $\int \frac{x + 1}{x(x + \log x)} dx$

 [Watch Video Solution](#)

34. Evaluate: $\int \frac{1 - \sin 2x}{x + \cos^2 x} dx$

 [Watch Video Solution](#)

35. Evaluate: $\int \frac{1 + \tan x}{x + \log \sec x} dx$

 [Watch Video Solution](#)

36. Evaluate: $\int \frac{\operatorname{cosec}^2 x}{1 + \cot x} dx$

 [Watch Video Solution](#)

37. Evaluate: $\int \frac{10x^9 + 10^x(\log)_e 10}{10^x + x^{10}} dx$

 [Watch Video Solution](#)

38. Evaluate: $\int \frac{\operatorname{cosec} x}{\operatorname{logtan}\left(\frac{x}{2}\right)} dx$

 [Watch Video Solution](#)

39. Evaluate: $\int \frac{1}{x \log x \log(\log x)} dx$



[Watch Video Solution](#)

40. Evaluate: $\int \frac{\cos 4x - \cos 2x}{\sin 4x - \sin 2x} dx$



[Watch Video Solution](#)

41. Evaluate: $\int \frac{\sec x}{\log(\sec x + \tan x)} dx$



[Watch Video Solution](#)

42. Evaluate: $\int \frac{x^4 + 1}{x^2 + 1} dx$



[Watch Video Solution](#)

43. Evaluate: $\int \cos^7 x dx$



[Watch Video Solution](#)

44. Evaluate: $\int \frac{\sqrt{1 + x^2}}{x^4} dx$



[Watch Video Solution](#)

45. Evaluate: $\int \frac{1}{a^2 - b^2x^2} dx$

 [Watch Video Solution](#)

46. Evaluate: $\int \operatorname{cosec}^4 3x dx$

 [Watch Video Solution](#)

47. Evaluate: $\int \frac{1}{\sqrt{3x^2 + 5x + 7}} dx$

 [Watch Video Solution](#)

48. Evaluate: $\int \frac{1}{\sqrt{5 - 4x - 2x^2}} dx$

 [Watch Video Solution](#)

49. Evaluate: $\int \frac{1}{\sqrt{2x - x^2}} dx$

 [Watch Video Solution](#)

50. Evaluate: $\int \frac{1}{\cos x + \operatorname{cosec} x} dx$

 [Watch Video Solution](#)

51. Evaluate: $\int \frac{1}{x(x^6 + 1)} dx$



[Watch Video Solution](#)

52. Evaluate: $\int x \cos x dx$



[Watch Video Solution](#)

53. Evaluate the following integrals : $\int (3x + 4)^2 dx$



[Watch Video Solution](#)

54. Evaluate: $\int \frac{x}{x^2 + 3x + 2} dx$

 [Watch Video Solution](#)

55. Evaluate: $\int \frac{x + 1}{x^2 + x + 3} dx$

 [Watch Video Solution](#)

56. Evaluate the following integrals : $\int \frac{x^6 + 1}{x^2 + 1} dx$

 [Watch Video Solution](#)

57. Evaluate the following integrals : $\int \frac{x^{-\frac{1}{3}} + \sqrt{x} + 2}{\sqrt[3]{x}} dx$

 [Watch Video Solution](#)

58. Evaluate the following integrals : $\int \sqrt{x} \left(x^3 - \frac{2}{x} \right) dx$

 [Watch Video Solution](#)

59. Evaluate the following integrals : $\int \frac{(x+1)(x-2)}{\sqrt{x}} dx$

 [Watch Video Solution](#)

60. Evaluate the following integrals : $\int \frac{x^5 + x^{-2} + 2}{x^2} dx$

 [Watch Video Solution](#)

61. Evaluate the following integrals : $\int \frac{(1 + \sqrt{x})^2}{\sqrt{x}} dx$

 [Watch Video Solution](#)

62. Evaluate: $\int \frac{x^2 + x + 1}{x^2 - x} dx$

 [Watch Video Solution](#)

63. Evaluate: $\int \frac{1}{\sin^2 x + \sin 2x} dx$

 [Watch Video Solution](#)

64. Evaluate: $\int \frac{1}{\cos 2x + 3\sin^2 x} dx$

 [Watch Video Solution](#)

65. Evaluate: (i) $\int \frac{1}{4x^2 + 12x + 5} dx$ (ii) $\int \frac{1}{x^2 - 10x + 34} dx$

 [Watch Video Solution](#)

66. Evaluate: $\int \frac{1}{x^2 - 10x + 34} dx$

 [Watch Video Solution](#)

67. Evaluate: $\int \frac{1}{2x^2 - x - 1} dx$

 [Watch Video Solution](#)

68. Evaluate: $\int \frac{1 - \sin x}{x + \cos x} dx$

 [Watch Video Solution](#)

69. Evaluate: $\int \frac{\cos x}{2 + 3\sin x} dx$



Watch Video Solution

70. Evaluate: $\int \frac{a}{b + ce^x} dx$



Watch Video Solution

71. Evaluate: $\int \frac{e^{2x}}{e^{2x} - 2} dx$



Watch Video Solution

72. Evaluate: $\int \frac{\cot x}{\log \sin x} dx$

 [Watch Video Solution](#)

73. Evaluate: $\int \frac{\cos 2x + x + 1}{x^2 + \sin 2x + 2x} dx$

 [Watch Video Solution](#)

74. Evaluate: $\int \frac{-\sin x + 2\cos x}{2\sin x + \cos x} dx$

 [Watch Video Solution](#)

75. Evaluate: $\int \frac{e^x}{\sqrt{16 - e^{2x}}}$



[Watch Video Solution](#)

76. Evaluate: $\int xe^{x^2} dx$



[Watch Video Solution](#)

77. Evaluate: $\int x^2 \sqrt{x + 2} dx$



[Watch Video Solution](#)

78. Evaluate: $\int \frac{x^2 + x + 1}{x^2 - x + 1} dx$

 [Watch Video Solution](#)

79. Evaluate: $\int \frac{\cos x}{\sqrt{\sin^2 x - 2\sin x - 3}} dx$

 [Watch Video Solution](#)

80. Evaluate the following integrals : $\int (x^e + e^x + e^e) dx$

 [Watch Video Solution](#)

81. Evaluate the following integrals :

$$\int \left\{ x^2 + e^{\log x} + \left(\frac{e}{2} \right)^x \right\} dx$$



Watch Video Solution

82. Evaluate: $\int \frac{1}{\sqrt{(1-x^2)\{9+(\sin^{-1}x)^2\}}} dx$



Watch Video Solution

83. Evaluate the following integrals :

$$\int \left(\frac{m}{x} + \frac{m}{m} + m^x + x^m + mx \right) dx$$



[Watch Video Solution](#)

84. Evaluate the following integrals :

$$\int (2 - 3x)(3 + 2x)(1 - 2x)dx$$



[Watch Video Solution](#)

85. Evaluate the following integrals : $\int \frac{(1 + x)^3}{\sqrt{x}} dx$



[Watch Video Solution](#)

86. Evaluate the following integrals :

$$\int (3x\sqrt{x} + 4\sqrt{x} + 5) dx$$

 [Watch Video Solution](#)

87. Evaluate: $\int \frac{\sin x - \cos x}{\sqrt{\sin 2x}} dx$

 [Watch Video Solution](#)

88. Evaluate the following integrals :

$$\int \left(2^x + \frac{5}{x} - \frac{1}{x^{\frac{1}{3}}} \right) dx$$

 [Watch Video Solution](#)

89. Evaluate: $\int \frac{1}{(\sin x - 2\cos x)(2\sin x + \cos x)} dx$

 [Watch Video Solution](#)

90. Evaluate: $\int \frac{x + \sqrt{x+1}}{x+2} dx$

 [Watch Video Solution](#)

91. Evaluate: $\int \frac{e^{2x}}{1 + e^x} dx$

 [Watch Video Solution](#)

92. Evaluate: $\int \frac{\sec^2 \sqrt{x}}{\sqrt{x}} dx$

 [Watch Video Solution](#)

93. Evaluate: $\int \sqrt{e^x - 1} dx$

 [Watch Video Solution](#)

94. Evaluate: $\int \frac{1}{(x+1)(x^2+2x+2)} dx$

 [Watch Video Solution](#)

95. Evaluate: $\int \left(5^{5^{5^x}} \cdot 5^{5^x} \cdot 5^x \right) dx$



Watch Video Solution

96. Evaluate: $\int \frac{1}{x\sqrt{x^2 - 1}} dx$



Watch Video Solution

97. Evaluate: $\int \frac{x^5}{1 + x^3} dx$



Watch Video Solution

98. Evaluate: $\int 4x^3 \sqrt{5 - x^2} dx$



Watch Video Solution

99. Evaluate: $\int \frac{1}{\cos x (\sin x + 2 \cos x)} dx$



Watch Video Solution

100. Evaluate: $\int \frac{\sin 2x}{\sqrt{\sin^4 x + 4 \sin^2 x - 2}} dx$



Watch Video Solution

101. $\int \frac{3x + 1}{\sqrt{5 - 2x - x^2}} dx$



[Watch Video Solution](#)

102. Evaluate: $\int \frac{1}{\sin x \cos^2 x} dx$



[Watch Video Solution](#)

103. Evaluate: $\int \frac{1}{\cos 3x - \cos x} dx$



[Watch Video Solution](#)

104. Evaluate: $\int \frac{e^{m \sin^{-1} x}}{\sqrt{1-x^2}} dx$

 [Watch Video Solution](#)

105. $\int (2x - 3)^5 + \sqrt{3x + 2} dx$

 [Watch Video Solution](#)

106. $\int \frac{2x}{(2x + 1)^2} dx$

 [Watch Video Solution](#)

$$107. \int \frac{x+3}{(x+1)^4} dx$$

 [Watch Video Solution](#)

$$108. \int \frac{1}{\sqrt{x+1} + \sqrt{x}} dx$$

 [Watch Video Solution](#)

$$109. \int \frac{1}{\sqrt{x+a} + \sqrt{x+b}} dx$$

 [Watch Video Solution](#)

110. $\int \sin x \sqrt{1 + \cos 2x} dx$



[Watch Video Solution](#)

111. Evaluate: $\int \frac{\log x}{x} dx$



[Watch Video Solution](#)

112. Evaluate: $\int \frac{\log \left(1 + \frac{1}{x} \right)}{x(1+x)} dx$



[Watch Video Solution](#)

113. Evaluate: $\int \frac{(1 + \sqrt{x})^2}{\sqrt{x}} dx$

 [Watch Video Solution](#)

114. Evaluate: $\int \sqrt{1 + e^x} e^x dx$

 [Watch Video Solution](#)

115. Evaluate: $\int 3\sqrt{\cos^2 x} \sin x dx$

 [Watch Video Solution](#)

116. Evaluate: $\int \frac{e^x}{(1 + e^x)^2} dx$

 [Watch Video Solution](#)

117. Evaluate: $\int \cot^3 x \operatorname{cosec}^2 x dx$

 [Watch Video Solution](#)

118. Evaluate: $\int \frac{\left\{ e^{\sin^{-1} x} \right\}^2}{\sqrt{1 - x^2}} dx$

 [Watch Video Solution](#)

119. Evaluate: $\int \frac{1 + \sin x}{\sqrt{x - \cos x}} dx$



Watch Video Solution

120. Evaluate: $\int \frac{x}{\sqrt{4 - x^4}} dx$



Watch Video Solution

121. $\int \frac{\sin 2x}{\sin^4 x + \cos^4 x} dx$



Watch Video Solution

122. Evaluate: $\int \frac{ax^3 + bx}{x^4 + c^2} dx$

 [Watch Video Solution](#)

123. Evaluate: $\int \frac{1}{(x - \alpha)(\beta - x)} dx, (\beta > \alpha)$

 [Watch Video Solution](#)

124. Evaluate: $\int \frac{1}{\sqrt{x} + x} dx$

 [Watch Video Solution](#)

125. Evaluate: $\int \frac{\sin^5 x}{\cos^4 x} dx$



Watch Video Solution

126. Evaluate: $\int \frac{x^2}{(a^2 - x^2)^{3/2}} dx$



Watch Video Solution

127. Evaluate: $\int \{1 + \tan x \tan(x + \alpha)\} dx$



Watch Video Solution

128. Evaluate: $\int \tan 2x \tan 3x \tan 5x dx$



Watch Video Solution

129. Evaluate: (i) $\int \frac{1}{\sqrt{x}(\sqrt{x} + 1)} dx$ (ii)

$\int \tan 2x \tan 3x \tan 5x dx$



Watch Video Solution

130. Evaluate: $\int \frac{1 + \cot x}{x + \log \sin x} dx$



Watch Video Solution

131. Evaluate: $\int \frac{\sin 2x}{\sin 5x \sin 3x} dx$



Watch Video Solution

132. Evaluate: $\int \frac{2\cos 2x + \sec^2 x}{\sin 2x + \tan x - 6} dx$



Watch Video Solution

133. Evaluate: $\int \frac{\sec^2 x}{\tan x + 2} dx$



Watch Video Solution

134. Evaluate: $\int \frac{1}{\sqrt{1-x^2}(2+3\sin^{-1}x)} dx$



Watch Video Solution

135. $\int \frac{x^2 + 3x - 1}{(x + 1)^2} dx$



Watch Video Solution

136. $\int \frac{2x + 3}{(x - 1)^2} dx$



Watch Video Solution

$$137. \int \frac{x^2 + x + 5}{3x + 2} dx$$



[Watch Video Solution](#)

$$138. \int \frac{x^3}{x - 2} dx$$



[Watch Video Solution](#)

$$139. \int \frac{x^2 + 5x + 2}{x + 2} dx$$



[Watch Video Solution](#)

140. Evaluate: $\int 5^{x + \tan^{-1}x} \left(\frac{x^2 + 2}{x^2 + 1} \right) dx$

 [Watch Video Solution](#)

141. $\int \left(e^x + \frac{1}{e^x} \right)^2 dx$

 [Watch Video Solution](#)

142. $\int (e^x + 1)^2 e^x dx$

 [Watch Video Solution](#)

143. Evaluate: $\int \cot^6 x dx$



[Watch Video Solution](#)

144. $\int \frac{1 + \cos 4x}{\cot x - \tan x} dx$



[Watch Video Solution](#)

145. Evaluate: $\int \frac{x^2 + 3x - 1}{(x + 1)^2} dx$



[Watch Video Solution](#)

$$146. \int \left(\frac{1 + \cos x}{1 - \cos x} \right) dx$$

 [Watch Video Solution](#)

$$147. \int \frac{1}{1 + \cos 3x} dx$$

 [Watch Video Solution](#)

$$148. \int \frac{1}{1 - \frac{\sin x}{2}} dx$$

 [Watch Video Solution](#)

149. Evaluate: $\int x(1 - x)^{23} dx$



Watch Video Solution

150. Evaluate: $\int \frac{1}{\sqrt{x} + 4\sqrt{x}} dx$



Watch Video Solution

151. Evaluate: $\int \frac{2\tan x + 3}{3\tan x + 4} dx$



Watch Video Solution

152. $\int \frac{\cos^3 x}{\sqrt{\sin x}} dx$

 [Watch Video Solution](#)

153. Evaluate: $\int \tan^5 x dx$

 [Watch Video Solution](#)

154. Evaluate: $\int \frac{\cot x}{\sin x} dx$

 [Watch Video Solution](#)

155. Evaluate: $\int \frac{1}{\sqrt{1-x^2}(\sin^{-1}x)^2} dx$

 [Watch Video Solution](#)

156. Evaluate: $\int \frac{1}{\sqrt{\tan^{-1}x}(1+x^2)} dx$

 [Watch Video Solution](#)

157. Evaluate: $\int \sec^6 x \tan x dx$

 [Watch Video Solution](#)

158. Evaluate each of the following integrals: $\int x^4 dx$ (ii)

$$\int x^{\frac{5}{4}} dx \quad \int \frac{1}{x^5} dx$$



Watch Video Solution

159. Evaluate : $\int \sqrt{\frac{1 + \cos 2x}{2}} dx \quad \int \sqrt{\frac{1 - \cos 2x}{2}} dx$



Watch Video Solution

160. Evaluate: $\int \sin^5 x \cos x dx$



Watch Video Solution

161. Evaluate : $\int \frac{a}{a^x b^x} dx$

 [Watch Video Solution](#)

162. Evaluate : (i) $\int \frac{\cos 2x + 2\sin^2 x}{\sin^2 x} dx$ (ii)

$$\int \frac{2\cos^2 x - \cos 2x}{\cos^2 x} dx$$

 [Watch Video Solution](#)

163. Evaluate : $\int \frac{e^{\log \sqrt{x}}}{x} dx$

 [Watch Video Solution](#)

164. $\int \sin x \sqrt{1 - \cos 2x} dx$



Watch Video Solution

165. Evaluate: $\int \frac{x^2(x^4 + 4)}{x^2 + 4} dx$



Watch Video Solution

166. Evaluate: $\int \tan^3 x \sec^2 x dx$



Watch Video Solution

167. $\int \sin^3(2x + 1)dx$



[Watch Video Solution](#)

168. $\int \sin^2 bxdx$



[Watch Video Solution](#)

169. Evaluate: $\int \tan x \sec^2 x \sqrt{1 - \tan^2 x} dx$



[Watch Video Solution](#)

170. Evaluate: $\int \tan^5 x \sec^4 x dx$



Watch Video Solution

171. Evaluate: $\int \frac{\sin x}{\sqrt{4\cos^2 x - 1}} dx$



Watch Video Solution

172. Evaluate: $\int \frac{x^3 - x^2 + x - 1}{x - 1} dx$



Watch Video Solution

173. Evaluate: $\int \frac{\sin 2x}{(a + b \cos 2x)^2} dx$

 [Watch Video Solution](#)

174. Evaluate: $\int e^{\cos^2 x} \sin 2x dx$

 [Watch Video Solution](#)

175. Evaluate: $\int \frac{1 + \cos x}{(x + \sin x)^3} dx$

 [Watch Video Solution](#)

176. Evaluate: $\int \frac{4x + 3}{\sqrt{2x^2 + 3x + 1}} dx$

 [Watch Video Solution](#)

177. Evaluate: $\int \frac{1}{1 + \sqrt{x}} dx$

 [Watch Video Solution](#)

178. Evaluate: $\int \frac{x^3}{(x^2 + 1)^3} dx$

 [Watch Video Solution](#)

179. Evaluate: $\int \sin^4 x \cos^3 x dx$



Watch Video Solution

180. Evaluate: $\int \cos^5 x dx$



Watch Video Solution

181. Evaluate: $\int \sin^5 x \cos x dx$



Watch Video Solution

182. Evaluate: $\int \sin^3 x \cos^6 x dx$



[Watch Video Solution](#)

183. Evaluate: $\int \frac{(\log x)^2}{x} dx$



[Watch Video Solution](#)

184. Evaluate: $\int x \cos^3(x^2) \sin(x^2) dx$



[Watch Video Solution](#)

185. Evaluate: $\int 2x \sec^2(x^2 + 3) \tan(x^2 + 3) dx$



[Watch Video Solution](#)

186. Evaluate: $\int x^2 e^{x^3} \cos(e^{x^3}) dx$



Watch Video Solution

187. Evaluate: $\int \frac{x^3 - 3x}{x^4 + 2x^2 + 4} dx$



Watch Video Solution

188. Evaluate: $\int \frac{2x + 1}{\sqrt{x^2 + 2x - 1}} dx$



Watch Video Solution

189. Evaluate: $\int \frac{1}{\sqrt{a^2 - b^2x^2}} dx$

 [Watch Video Solution](#)

190. Evaluate: $\int \frac{1}{1 - \cot x} dx$

 [Watch Video Solution](#)

191. Evaluate: $\int \frac{x^7}{(a^2 - x^2)^5} dx$

 [Watch Video Solution](#)

192. Evaluate: $\int \frac{1}{\sin x + \cos x} dx$



Watch Video Solution

193. Evaluate: $\int \frac{1}{13 + 3\cos x + 4\sin x} dx$



Watch Video Solution

194. Evaluate: $\int \frac{1}{5 + 4\cos x} dx$



Watch Video Solution

195. Evaluate: $\int \frac{1}{1 - 2\sin x} dx$

 [Watch Video Solution](#)

196. Evaluate the following integrals :

$$\int \frac{x^3 - 3x^2 + 5x - 7 + x^2 a^x}{2x^2} dx$$

 [Watch Video Solution](#)

197. Evaluate the following integrals :

$$\int (a \tan x + b \cot x)^2 dx$$

 [Watch Video Solution](#)

198. Evaluate: $\int \frac{2}{2 + \sin 2x} dx$

 [Watch Video Solution](#)

199. If $f'(x) = x - \frac{1}{x^2}$ and $f(1) = \frac{1}{2}$, find $f(x)$.

 [Watch Video Solution](#)

200. Evaluate the following integrals :

$$\int \left\{ 3\sin x - 4\cos x + \frac{5}{\cos^2 x} - \frac{6}{\sin^2 x} + \tan^2 x - \cot^2 x \right\} dx$$

 [Watch Video Solution](#)

201. If $f'(x) = 8x^3 - 2x$, $f(2) = 8$, find $f(x)$



Watch Video Solution

202. If $f'(x) = x + b$, $f(1) = 5$, $f(2) = 13$, find $f(x)$



Watch Video Solution

203. If $f'(x) = a \sin x + b \cos x$ and

$$f'(0) = 4, f(0) = 3, f\left(\frac{\pi}{2}\right) = 5f(x)$$



Watch Video Solution

204. Evaluate: $\int x^3 \cos x^4 dx$



[Watch Video Solution](#)

205. Evaluate: $\int \operatorname{cosec} x \log(\operatorname{cosec} x - \cot x) dx$



[Watch Video Solution](#)

206. $\int \frac{x \sin^{-1} x^2}{\sqrt{1-x^4}} dx$



[Watch Video Solution](#)

207. Evaluate: $\int \sin^3 x \cos^5 x dx$



[Watch Video Solution](#)

208. Evaluate: $\int \frac{(x+1)e^x}{\cos^2(xe^x)} dx$



[Watch Video Solution](#)

209. Evaluate: $\int \frac{\sin 2x}{a \cos^2 x + b \sin^2 x} dx$



[Watch Video Solution](#)

210. Evaluate: $\int \frac{1}{\sin^4 x \cos^2 x} dx$

 [Watch Video Solution](#)

211. $\int \sin x \cos 2x \sin 3x dx$

 [Watch Video Solution](#)

212. Evaluate: $\int \sqrt{\frac{1 - \sin 2x}{1 + \sin 2x}} dx$

 [Watch Video Solution](#)

213. $\int \sin mx \cos nx dx, m \neq n$



Watch Video Solution

214. Evaluate: $\int \frac{\sec x \tan x}{3 \sec x + 5} dx$



Watch Video Solution

215. Evaluate: $\int x^2 e^{-x} dx$



Watch Video Solution

216. $\int \cos mx \cos nx dx, m \neq n$



Watch Video Solution

217. Evaluate: $\int \frac{dx}{x(3 + \log x)}$



Watch Video Solution

218. Evaluate: $\int \frac{e^x + 1}{e^x + x} dx$



Watch Video Solution

219. Evaluate: $\int \frac{\sin 8x}{\sqrt{9 + \sin^4 4x}} dx$

 [Watch Video Solution](#)

220. Evaluate: $\int \sqrt{\frac{1-x}{1+x}} dx$

 [Watch Video Solution](#)

221. $\int (x + 2)\sqrt{3x + 5} dx$

 [Watch Video Solution](#)

$$222. \int \frac{x+1}{\sqrt{2x+3}} dx$$



[Watch Video Solution](#)

$$223. \int x\sqrt{x+2} dx$$



[Watch Video Solution](#)

$$224. \text{ Evaluate: } \int \frac{1}{\sqrt{3}\sin x + \cos x} dx$$



[Watch Video Solution](#)

225. Evaluate: $\int \cos \left\{ 2 \cot^{-1} \sqrt{\frac{1+x}{1-x}} \right\}$

 [Watch Video Solution](#)

226. Evaluate the following integrals :

$$\int \tan^{-1} \left(\frac{\sin 2x}{1 + \cos 2x} \right) dx$$

 [Watch Video Solution](#)

227. Evaluate the following integrals : $\int \cos^{-1}(\sin x) dx$

 [Watch Video Solution](#)

228. Evaluate: $\int \frac{\cos x}{\cos 3x} dx$

 [Watch Video Solution](#)

229. Evaluate: $\int \cot^n x \operatorname{cosec}^2 x dx, n \neq -1$

 [Watch Video Solution](#)

230. Evaluate the following integrals : $\int \frac{\tan x}{\sec x + \tan x} dx$

 [Watch Video Solution](#)

231. Evaluate: $\int \frac{1}{(x^2 + 2x + 10)^2} dx$

 [Watch Video Solution](#)

232. Evaluate the following integrals : $\int \frac{1}{1 + \cos 2x} dx$

 [Watch Video Solution](#)

233. Evaluate : $\int \sec^4 x \tan x dx$.

 [Watch Video Solution](#)

234. Evaluate: $\int \frac{e^{\sqrt{2}} \cos(e^{\sqrt{x}})}{\sqrt{x}} dx$



Watch Video Solution

235. Evaluate: $\int \frac{\cos^5 x}{\sin x} dx$



Watch Video Solution

236. Evaluate: $\int \frac{x}{\sqrt{x^4 + a^4}} dx$



Watch Video Solution

237. Evaluate the following integrals :

$$\int \sin^{-1} \left(\frac{2 \tan x}{1 + \tan^2 x} \right) dx$$

 [Watch Video Solution](#)

238. Evaluate the following integrals :

$$\int \frac{(x^3 + 8)(x - 1)}{x^2 - 2x + 4} dx$$

 [Watch Video Solution](#)

239. Evaluate: $\int \log x \frac{\sin \left\{ 1 + (\log x)^2 \right\}}{x} dx$



[Watch Video Solution](#)

240. Evaluate: $\int \frac{1}{x^2} \cos^2\left(\frac{1}{x}\right) dx$



[Watch Video Solution](#)

241. Evaluate: $\int \frac{1 + \tan x}{1 - \tan x} dx$



[Watch Video Solution](#)

242. Evaluate: $\int \frac{1}{4\cos^2 x + 9\sin^2 x} dx$



[Watch Video Solution](#)

243. Evaluate: $\int \frac{1}{\sqrt{(2-x)^2 + 1}} dx$

 [Watch Video Solution](#)

244. Evaluate: $\int \frac{1}{\sqrt{1 + \cos 2x}} dx$

 [Watch Video Solution](#)

245. Evaluate: $\int \frac{x^2 - 1}{x^2 + 4} dx$

 [Watch Video Solution](#)

246. Evaluate: $\int \frac{\sin(x - a)}{\sin(x - b)} dx$

 [Watch Video Solution](#)

247. Evaluate: $\int \frac{1}{a^2 - b^2 x^2} dx$

 [Watch Video Solution](#)

248. Evaluate: $\int \frac{\sec x}{\sec 2x} dx$

 [Watch Video Solution](#)

249. Evaluate: $\int \sqrt{\frac{1 - \cos x}{1 + \cos x}} dx$



Watch Video Solution

250. Evaluate: $\int \log(x + 1) dx$



Watch Video Solution

251. Evaluate: $\int \frac{e^{x-1} + x^{e-1}}{e^x + x^e} dx$



Watch Video Solution

252. Evaluate: $\int x^3 \log x dx$



Watch Video Solution

253. Evaluate: $\int \frac{1}{x\sqrt{4 - 9(\log x)^2}} dx$



Watch Video Solution

254. Evaluate: $\int \frac{e^{3x}}{e^{3x} + 1} dx$



Watch Video Solution

255. $\int \frac{\sin x + \cos x}{\sqrt{1 + \sin 2x}} dx.$

 [Watch Video Solution](#)

256. Evaluate: $\int \frac{x^3}{x^4 + 3x^2 + 2} dx$

 [Watch Video Solution](#)

257. Evaluate: $\int \frac{x}{(x^2 + 4)\sqrt{x^2 + 9}} dx$

 [Watch Video Solution](#)

258. Evaluate: $\int \frac{1}{(1+x^2)\sqrt{1-x^2}} dx$



[Watch Video Solution](#)

259. $\int \frac{dx}{\sin x + \sec x}$



[Watch Video Solution](#)

260. $\int \sqrt{\frac{\sin(x-\alpha)}{\sin(x+\alpha)}} dx$



[Watch Video Solution](#)

261. Evaluate: $\int \frac{x^4 dx}{(x-1)(x^2+1)}$



Watch Video Solution

262. Evaluate: $\int \frac{dx}{x^2(x^4+1)^{\frac{3}{4}}}$ (A) $-\left(1 + \frac{1}{x^4}\right)^{\frac{1}{4}} + c$ (B)

$\left(1 + \frac{1}{x^4}\right)^{\frac{1}{4}} + c$ (C) $-\left(1 - \frac{1}{x^4}\right)^{\frac{1}{4}} + c$ (D) $-\left(1 + \frac{1}{x^4}\right)^{\frac{1}{4}} + c$



Watch Video Solution

263. Evaluate: $\int \frac{1}{\cos^6 x + \sin^6 x} dx$

 [Watch Video Solution](#)

264. Evaluate: $\int \frac{\sin 2x \cos 2x}{\sqrt{9 - \cos^4 2x}} dx$

 [Watch Video Solution](#)

265. Evaluate: $\int \frac{x^3}{x^{16} + 4} dx$

 [Watch Video Solution](#)

266. Evaluate: $\int \frac{x^4 + 1}{x^6 + 1} dx$

 [Watch Video Solution](#)

267. Evaluate: $\int \frac{x^2 + 1}{x^4 + x^2 + 1} dx$

 [Watch Video Solution](#)

268. Evaluate: $\int \frac{x^2 - 1}{(x^2 + 1)\sqrt{x^4 + 1}} dx$

 [Watch Video Solution](#)

269. Evaluate: $\int \frac{x^2 - \sqrt{3}x + 1}{x^4 - x^2 + 1} dx$

 [Watch Video Solution](#)

$$270. \frac{\tan\theta}{1 - \cot\theta} + \frac{\cot\theta}{1 - \tan\theta} = 1 + \sec\theta \cdot \operatorname{cosec}\theta$$



[Watch Video Solution](#)

$$271. \text{ Evaluate: } \int \frac{1 + x^2}{(1 - x^2)\sqrt{1 + x^2 + x^4}} dx$$



[Watch Video Solution](#)

$$272. \text{ Evaluate: } \int \frac{1}{(1 + \sqrt{x})\sqrt{x - x^2}} dx$$



[Watch Video Solution](#)

273. Evaluate: $\int \frac{1}{(x^2 + 2x + 2)} dx$

 [Watch Video Solution](#)

274. Evaluate: $\int \frac{1}{x^3 \sqrt{x^2 - a^2}} dx$

 [Watch Video Solution](#)

275. Evaluate: $\int \frac{x}{(1 - x^4)^{\frac{3}{2}}} dx$

 [Watch Video Solution](#)

276. Evaluate: $\int \frac{x^4}{x^2 + 1} dx$

 [Watch Video Solution](#)

277. Evaluate: $\int \frac{1}{x} \sqrt{\frac{1 - \sqrt{x}}{1 + \sqrt{x}}} dx$

 [Watch Video Solution](#)

278. Evaluate: $\int \frac{\sqrt{x}}{x + 1} dx$

 [Watch Video Solution](#)

279. Evaluate: $\int \frac{x^2 + 1}{x^4 - x^2 + 1} dx$



Watch Video Solution

280. Evaluate: $\int \frac{(x - 1)^2}{x^4 + x^2 + 1} dx$



Watch Video Solution

281. Evaluate: $\int \frac{1}{(x + 1)\sqrt{x^2 - 1}} dx$



Watch Video Solution

282. Evaluate: $\int \frac{1}{x^2 \sqrt{1+x^2}} dx$

 [Watch Video Solution](#)

283. Evaluate: $\int \frac{1}{(x^2 - 4) \sqrt{x+1}} dx$

 [Watch Video Solution](#)

284. Evaluate $\int \frac{x+2}{(x^2+3x+3) \sqrt{x+1}} + C$

 [Watch Video Solution](#)

285. Evaluate: $\int \frac{\sqrt{1+x^2}}{1-x^2} dx$

 [Watch Video Solution](#)

286. Evaluate: $\int \frac{1}{\sqrt{1+x^2}} dx$

 [Watch Video Solution](#)

287. Evaluate: $\int \frac{1}{(a^2+x^2)^2} dx$

 [Watch Video Solution](#)

288. Evaluate: $\int \frac{x^2}{\sqrt{1-x^6}} dx$



Watch Video Solution

289. Evaluate: $\int \tan^8 x \sec^4 x dx$



Watch Video Solution

290. Prove that: $\int \tan^n x dx = \frac{1}{n-1} \tan^{n-1} x - \int \tan^{n-2} x dx$



Watch Video Solution

291. Evaluate: $\int \left(\frac{\sin^2 x}{\cos^{14} x} \right)^{\frac{1}{3}} dx$



Watch Video Solution

292. Evaluate: $\int \frac{x^2}{\sqrt{1-x^2}} dx$



Watch Video Solution

293. Evaluate: $\int \frac{1}{(a^2 - x^2)^{\frac{3}{2}}} dx$



Watch Video Solution

294. Evaluate: $\int \frac{x + 1}{x(1 + xe^x)^2} dx$

 [Watch Video Solution](#)

295. Evaluate: $\int \frac{x^2}{(x - 1)^3(x + 1)} dx$

 [Watch Video Solution](#)

296. Evaluate: $\int \frac{x^2 + x + 1}{(x - 1)^3} dx$

 [Watch Video Solution](#)

297. Evaluate: $\int \frac{(x-1)(x-2)(x-3)}{(x-4)(x-5)(x-6)} dx$



Watch Video Solution

298. Evaluate: $\int (2x+3)\sqrt{x^2+4x+3} dx$



Watch Video Solution

299. Evaluate: $\int (2x-5)\sqrt{2+3x-x^2} dx$



Watch Video Solution

300. Evaluate: $\int (2x+3)\sqrt{x^2+4x+3} dx$

 [Watch Video Solution](#)

301. Evaluate: $\int \frac{\sin x}{\sin 4x} dx$

 [Watch Video Solution](#)

302. Evaluate: $\int \frac{1}{x + \sqrt{x^2 - x + 1}} dx$

 [Watch Video Solution](#)

303. Evaluate: $\int \left(\frac{1}{(x+1)^{\frac{1}{3}} + \sqrt{x+1}} \right) dx$



Watch Video Solution

304. Evaluate: $\int \frac{x^2}{\sqrt{x+2}} dx$



Watch Video Solution

305. Evaluate: $\int x^2 \sqrt{1+x} dx$



Watch Video Solution

306. Evaluate: $\int \frac{x^{\frac{1}{2}}}{1+x^{\frac{3}{4}}} dx$



Watch Video Solution

Watch Video Solution

307. Evaluate: $\int \frac{1}{x + \sqrt{x^2 - x + 1}} dx$

 Watch Video Solution

308. Solve: $\frac{dy}{dx} = e^{x+y}$

 Watch Video Solution

309. Evaluate: $\int \frac{\cos^3 x}{\sin^2 x + \sin x} dx$

 Watch Video Solution

310. Evaluate: $\int \frac{x^2}{(x^2 + a^2)(x^2 + b^2)} dx$

 [Watch Video Solution](#)

311. Evaluate: $\int \frac{1}{\sin x(3 + 2\cos x)} dx$

 [Watch Video Solution](#)

312. Evaluate: $\int \frac{\tan \theta + \tan^3 \theta}{1 + \tan^3 \theta} d\theta$

 [Watch Video Solution](#)

313. Evaluate: $\int \frac{1}{\sin x (2\cos^2 x - 1)} dx$

 [Watch Video Solution](#)

314. Evaluate: $\int \frac{3 - 4x - x^2}{(x + 2)(x - 1)} dx$

 [Watch Video Solution](#)

315. Evaluate: $\int \frac{\sin 2x}{(1 + \sin x)(2 + \sin x)} dx$

 [Watch Video Solution](#)

316. Evaluate: $\int \left(\frac{1}{x \log x (2 + \log x)} \right) dx$



Watch Video Solution

317. Evaluate: $\int \frac{x^2 + 6x - 8}{x^3 - 4x} dx$



Watch Video Solution

318. Evaluate: $\int \frac{x}{(x + 1)(x^2 + 1)} dx$



Watch Video Solution

319. Evaluate: $\int \frac{1}{1+x+x^2+x^3} dx$



Watch Video Solution

320. Evaluate: $\int \frac{\sin 2x}{\sin\left(x - \frac{\pi}{3}\right)\sin\left(x + \frac{\pi}{3}\right)} dx$



Watch Video Solution

321. Evaluate: $\int \{1 + 2\tan x(\tan x + \sec x)\}^{\frac{1}{2}} dx$



Watch Video Solution

322. Evaluate: $\int \frac{\sin(x + a)}{\sin(x + b)} dx$

 [Watch Video Solution](#)

323. Integrate the integrals: $\int \sin x \cos 2x \sin 3x dx$

 [Watch Video Solution](#)

324. Evaluate: $\int \frac{\cos 5x + \cos 4x}{1 - 2\cos 3x} dx$

 [Watch Video Solution](#)

325. Evaluate: $\int \frac{8^{1+x} + 4^{1-x}}{2^x} dx$



Watch Video Solution

326. $\int \sqrt{1 - \sin x} dx$



Watch Video Solution

327. Evaluate: (i) $\int \frac{1}{\sqrt{3x+4} - \sqrt{3x+1}} dx$



Watch Video Solution

328. $\int \frac{x}{\sqrt{x+a} - \sqrt{x+b}} dx$

 [Watch Video Solution](#)

329. Evaluate: $\int \frac{\sin x}{\sin 4x} dx$

 [Watch Video Solution](#)

330. Find $\int x\sqrt{1+x-x^2} dx$

 [Watch Video Solution](#)

331. Evaluate: $\int \frac{x}{x - \sqrt{x^2 - 1}} dx$

 [Watch Video Solution](#)

332. Evaluate: $\int \frac{x^2}{\sqrt{1 - 2x - x^2}} dx$

 [Watch Video Solution](#)

333. Evaluate: $\int \sqrt{9 - x^2} dx$

 [Watch Video Solution](#)

334. Evaluate: $\int \sqrt{\frac{1+x}{1-x}} dx$



Watch Video Solution

335. Evaluate: $\int \sqrt{\frac{1-\sqrt{x}}{1+\sqrt{x}}} dx$



Watch Video Solution

336. Evaluate: $\int x^2 \sqrt{a^6 - x^6} dx$



Watch Video Solution

337. Evaluate: $\int \sqrt{2ax - x^2} dx$



Watch Video Solution

338. Evaluate: $\int \sqrt{2x^2 + 3x + 4} dx$



Watch Video Solution

339. Evaluate: $\int \sqrt{3 - 2x - 2x^2} dx$



Watch Video Solution

340. Evaluate: $\int \frac{x^4 + x^2 + 1}{x^2 - x + 1} dx$.

 [Watch Video Solution](#)

341. Evaluate: $\int \frac{e^{5(\log) e^x} - e^{4(\log) e^x}}{e^{3(\log) e^x} - e^{2\log x}} dx$

 [Watch Video Solution](#)

342. Evaluate: $\int e^{2x} \left(\frac{1 + \sin 2x}{1 + \cos 2x} \right) dx$

 [Watch Video Solution](#)

343. Evaluate $\int \frac{3\cos x + 2}{\sin x + 2\cos x + 3} dx$

 [Watch Video Solution](#)

344. Evaluate : $\int \frac{1}{1 + \cos x} dx$

 [Watch Video Solution](#)

345. Evaluate the following integrals: $\int x^4 dx$ (ii)

$$\int \sqrt{x} dx$$

 [Watch Video Solution](#)

346. Evaluate the following integrals: $\int \frac{1}{\sqrt{x}} dx$ (ii)

$$\int \frac{1}{x^3} dx \text{ (iii) } \int a^{3 (\log)_a x} dx$$



Watch Video Solution

347. Evaluate: $\int \frac{e^{5 (\log)_e x} - e^{4 (\log)_e x}}{e^{3 (\log)_e x} - e^{2 (\log)_e x}} dx$



Watch Video Solution

348. Evaluate: (i) $\int \frac{2}{1 + \cos 2x} dx$ (ii) $\int \frac{2}{1 - \cos 2x} dx$



Watch Video Solution

349. Evaluate: (i) $\int \frac{\cos 2x + 2 \sin^2 x}{\cos^2 x} dx$ (ii)

$$\int \frac{2 \cos^2 x - \cos 2x}{\sin^2 x} dx$$

 [Watch Video Solution](#)

350. If $a > 0$ and $a \neq 1$ evaluate the following integrals: $\int e^x (\log) e^a dx$ (ii) $\int e^a (\log) e^x dx$

 [Watch Video Solution](#)

351. If $a > 0$ and $a \neq 1$ evaluate the following integrals: $\int e^x a^x dx$ (ii) $\int 2^{(\log) e^x} dx$

 [Watch Video Solution](#)

352. Evaluate each of the following integrals: $\int x^4 dx$

(ii) $\int x^{5/4} dx$ (iii) $\int \frac{1}{x^5} dx$ (iv) $\int \frac{1}{x^{3/2}} dx$



Watch Video Solution

353. Evaluate each of the following integrals: $\int 3^x dx$

(ii) $\int \frac{1}{x^2 3} dx$ (iii) $\int 3^{2x} (\log)_3 dx$ (iv) $\int (\log)_x dx$



Watch Video Solution

354. Evaluate: (i) $\int \sqrt{\frac{1 + \cos 2x}{2}} dx$ (ii) $\int \sqrt{\frac{1 - \cos 2x}{2}} dx$



Watch Video Solution

355. Evaluate: $\int \frac{e^{6(\log)e^x} - e^{5(\log)e^x}}{e^{4(\log)e^x} - e^{3(\log)e^x}} dx$



Watch Video Solution

356. Evaluate: $\int \frac{1}{a^x b^x} dx$



Watch Video Solution

357. Evaluate: (i) $\int \frac{\cos 2x + 2 \sin^2 x}{\sin^2 x} dx$ (ii)

$\int \frac{2 \cos^2 x - \cos 2x}{\cos^2 x} dx$

 [Watch Video Solution](#)

358. Evaluate: $\int \frac{e^{\log\sqrt{x}}}{x} dx$

 [Watch Video Solution](#)

359. Evaluate: (i) $\int 4x^5 dx$ (ii) $\int 2\sin x dx$ (iii) $\int 3^{x+2} dx$ (iv)

$\int \frac{1}{2} \sec^2 x dx$

 [Watch Video Solution](#)

360. Evaluate: $\int x^3 + 5x^2 - 4 + \frac{7}{x} + \frac{2}{\sqrt{x}} dx$

 [Watch Video Solution](#)

361. Evaluate: $\int \frac{x^3 + 5x^2 + 4x + 1}{x^2} dx$

 [Watch Video Solution](#)

362. Evaluate: (i) $\int (1 - x)\sqrt{x} dx$ (ii) $\int \left(\sqrt{x} + \frac{1}{\sqrt{x}} \right)^2 dx$

 [Watch Video Solution](#)

363. Evaluate: $\int \left(x^2 + \frac{1}{x^2} \right)^3 dx$

 [Watch Video Solution](#)

364. Evaluate: $\int \frac{(1+x)^2}{\sqrt{x}} dx$

 [Watch Video Solution](#)

365. Evaluate: $\int \frac{x^3 - x^2 + x - 1}{x - 1} dx$

 [Watch Video Solution](#)

366. Evaluate: $\int \frac{x^4 + x^2 + 1}{x^2 - x + 1} dx$

 [Watch Video Solution](#)

367.

Evaluate:

$$\int (3 \sin x - 2 \cos x + 4 \sec^2 x - 5 \operatorname{cosec}^2 x) dx \quad (\text{ii})$$

$$\int \sqrt{1 + \cos 2x} dx$$



Watch Video Solution

368. Evaluate: (i) $\int \sqrt{1 - \cos 2x} dx$ (ii) $\int \sqrt{1 + \sin 2x} dx$



Watch Video Solution

369. Evaluate: $\int \sqrt{1 - \sin 2x} dx$



Watch Video Solution

370. Evaluate: $\int \frac{\cos x - \cos 2x}{1 - \cos x} dx$



Watch Video Solution

371. Evaluate: (i) $\int \tan^2 x dx$ (ii) $\int \cot^2 x dx$



Watch Video Solution

372. Evaluate: $\int \frac{1}{\sin^2 x \cos^2 x} dx$



Watch Video Solution

373. Evaluate: $\int \frac{\cos 2x}{\sin^2 x \cos^2 x} dx$



Watch Video Solution

374. Evaluate: $\int \frac{2 + 3\cos x}{\sin^2 x} dx$



Watch Video Solution

375. Evaluate: $\int (2\tan x - 3\cot x)^2 dx$



Watch Video Solution

376. Evaluate: $\int \frac{\cos 2x - \cos 2\alpha}{\cos x - \cos \alpha} dx$

 [Watch Video Solution](#)

377. Evaluate: $\int \frac{1}{1 + \sin x} dx$

 [Watch Video Solution](#)

378. Evaluate: $\int \frac{1}{1 + \cos x} dx$

 [Watch Video Solution](#)

379. Evaluate: $\int \frac{\sin x}{1 + \sin x} dx$

 [Watch Video Solution](#)

380. Evaluate: $\int \frac{\sec x}{\sec x + \tan x} dx$

 [Watch Video Solution](#)

381. Evaluate: $\int \frac{\sin^6 x + \cos^6 x}{\sin^2 x \cos^2 x} dx$

 [Watch Video Solution](#)

382. Evaluate: $\int \frac{1 + \cos 4x}{\cot x - \tan x} dx$

 [Watch Video Solution](#)

383. $\int \frac{1}{\tan x + \cot x + \sec x + \operatorname{cosec} x} dx$ is equal to

 [Watch Video Solution](#)

384. Evaluate: (i) $\int \sin^{-1}(\cos x) dx, 0 \leq x \leq \pi$

(ii) $\int \tan^{-1} \left\{ \sqrt{\frac{(1 - \cos 2x)}{(1 + \cos 2x)}} \right\} dx, 0$

 [Watch Video Solution](#)

385. Evaluate $\int \tan^{-1}(\sec x + \tan x) dx$, $-\pi/2 < x < \pi/2$



Watch Video Solution

386. Evaluate: $\int \tan^{-1}\left\{\sqrt{\frac{1-\sin x}{1+\sin x}}\right\} dx$, $-\pi/2$



Watch Video Solution

387. Evaluate: $\int e^{x \log a} + e^{a \log x} + e^{a \log a} dx$



Watch Video Solution

388. Evaluate: $\int \left(\frac{x}{m} + \frac{m}{x} + x^m + m^x \right) dx$

 [Watch Video Solution](#)

389. Evaluate: (i) $\int \frac{2^x + 3^x}{5^x} dx$ (ii) $\int \frac{(a^x + b^x)^2}{a^x b^x} dx$

 [Watch Video Solution](#)

390. Evaluate: (i) $\int (x^4 + x^2 + 1) d(x^2)$ (ii)

$\int \sin(e^x) d(e^x)$

 [Watch Video Solution](#)

391. If $f'(x) = 3x^2 - \frac{2}{x^3}$ and $f(1) = 0$, find $f(x)$.



Watch Video Solution

392. Evaluate the following:

(i) $\int (3x\sqrt{x} + 4\sqrt{x} + 5) dx$

(ii) $\int \left(2^x + \frac{5}{x} - \frac{1}{x^{1/3}} \right) dx$



Watch Video Solution

393. Evaluate: (i) $\int \left\{ \sqrt{x} (ax^2 + bx + c) \right\} dx$ (ii)

$$\int (2 - 3x)(3 + 2x)(1 - 2x) dx$$

 [Watch Video Solution](#)

394. Evaluate: $\int \left(\frac{m}{x} + \frac{x}{m} + m^x + x^m + mx \right) dx$ (ii)

$$\int \left(\sqrt{x} - \frac{1}{\sqrt{x}} \right)^2 dx$$

 [Watch Video Solution](#)

395. Evaluate:

$$(i) \int \frac{(1+x)^3}{\sqrt{x}} dx$$

$$(ii) \int \left\{ x^2 + e^{\log x} + \left(\frac{e}{2} \right)^x \right\} dx$$



Watch Video Solution

396. Evaluate:

$$(i) \int (x^e + e^x + e^e) dx$$

$$(ii) \int \sqrt{x} \left(x^3 - \frac{2}{x} \right) dx$$



Watch Video Solution

397. Evaluate: (i) $\int \frac{1}{\sqrt{x}} \left(1 + \frac{1}{x}\right) dx$ (ii) $\int \frac{x^6 + 1}{x^2 + 1} dx$



Watch Video Solution

398. Evaluate:

(i) $\int \frac{x^{-1/3} + \sqrt{x} + 2}{x^3} dx$

(ii) $\int \frac{(1 + \sqrt{x})^2}{\sqrt{x}} dx$



Watch Video Solution

399. Evaluate:

(i) $\int \sqrt{x}(3 - 5x) dx$

(ii) $\int \frac{(x + 1)(x - 2)}{\sqrt{x}} dx$



Watch Video Solution

400. Evaluate:

(i) $\int \frac{x^5 + x^{-2} + 2}{x^2} dx$

(ii) $\int \frac{5x^4 + 12x^3 + 7x^2}{x^2 + x} dx$



Watch Video Solution

401. Evaluate:

$$(i) \int \frac{\sin^2 x}{1 + \cos x} dx$$

$$(ii) \int (\sec^2 x + \operatorname{cosec}^2 x) dx$$



Watch Video Solution

402. Evaluate:

$$(i) \int \frac{\sin^3 x - \cos^3 x}{\sin^2 x \cos^2 x} dx$$

$$(ii) \int \frac{5\cos^3 x + 6\sin^3 x}{2\sin^2 x \cos^2 x} dx$$



Watch Video Solution

403. Evaluate:

(i) $\int (\tan x + \cot x)^2 dx$

(ii) $\int \frac{1 - \cos 2x}{1 + \cos 2x} dx$



Watch Video Solution

404. Evaluate:

(i) $\int \frac{\cos x}{1 - \cos x} dx$

(ii) $\int \frac{\cos^2 x - \sin^2 x}{\sqrt{1 + \cos 4x}} dx$



Watch Video Solution

405. Evaluate: (i) $\int \frac{1}{1 - \cos x} dx$ (ii) $\int \frac{1}{1 - \sin x} dx$

 [Watch Video Solution](#)

406. Evaluate: (i) $\int \frac{\tan x}{\sec x + \tan x} dx$ (ii) $\int \frac{\operatorname{cosec} x}{\operatorname{cosec} x - \cot x} dx$

 [Watch Video Solution](#)

407. Evaluate:

(i) $\int \frac{1}{1 + \cos 2x} dx$

(ii) $\int \frac{1}{1 - \cos 2x} dx$

 [Watch Video Solution](#)

408. Evaluate:

$$(i) \int \tan^{-1} \left(\frac{\sin 2x}{1 + \cos 2x} \right) dx$$

$$(ii) \int \cos^{-1}(\sin x) dx$$



Watch Video Solution

409. Evaluate:

$$(i) \int \cot^{-1} \left(\frac{\sin 2x}{1 - \cos 2x} \right) dx$$

$$(ii) \int \sin^{-1} \left(\frac{2 \tan x}{1 + \tan^2 x} \right) dx$$



Watch Video Solution

410. Evaluate:

$$(i) \int \frac{(x^3 + 8)(x - 1)}{x^2 - 2x + 4} dx$$

$$(ii) \int (a \tan x + b \cot x)^2 dx$$



Watch Video Solution

411. Evaluate:

$$(i) \int \frac{x^3 - 3x^2 + 5x - 7 + x^2 a^x}{2x^2} dx$$

$$(ii) \int \frac{\cos x}{1 + \cos x} dx$$



Watch Video Solution

412. Evaluate:

(i) $\int \frac{1 - \cos x}{1 + \cos x} dx$

(ii) $\int \left\{ 3\sin x - 4\cos x + \frac{5}{\cos^2 x} - \frac{6}{\sin^2 x} + \tan^2 x - \cot^2 x \right\} dx$



Watch Video Solution

413. If $f'(x) = x - \frac{1}{x^2}$ and $f(1) = \frac{1}{2}$, find $f(x)$.



Watch Video Solution

414. If $f'(x) = x + b$, $f(1) = 5$, $f(2) = 13$, find $f(x)$.



Watch Video Solution

415. If $f'(x) = 8x^3 - 2x$, $f(2) = 8$, find $f(x)$.



Watch Video Solution

416. If $f'(x) = a\sin x + b\cos x$ and

$f'(0) = 4$, $f(0) = 3$, $f\left(\frac{\pi}{2}\right) = 5$, find $f(x)$.



Watch Video Solution

417. Write the primitive or anti-derivative of

$$f(x) = \sqrt{x} + \frac{1}{\sqrt{x}}.$$



Watch Video Solution

418.

Evaluate:

$$\int \left\{ (2x - 3)^5 + \frac{1}{(7x - 5)^3} + \frac{1}{\sqrt{5x - 4}} + \frac{1}{2 - 3x} + \sqrt{3x + 2} \right\} dx$$



Watch Video Solution

419. Evaluate:

(i) $\int e^{2x-3} dx$

(ii) $\int a^{3x+2} dx$



Watch Video Solution

420. Evaluate:

(i) $\int \sec^2(7 - 4x) dx$

(ii) $\int \frac{1}{\sin^2 x \cos^2 x} dx$



Watch Video Solution

421. Evaluate:

(i) $\int \operatorname{cosec}^2(3x + 2) dx$

(ii) $\int \sin(ax + b)\cos(ax + b) dx$



Watch Video Solution

422. Evaluate: (i) $\int \frac{\sin 4x}{\sin 2x} dx$ (ii) $\int \frac{\sin 4x}{\cos 2x} dx$



[Watch Video Solution](#)

423. Evaluate: $\int \frac{\sin^8 x - \cos^8 x}{1 - 2\sin^2 x \cos^2 x} dx$



[Watch Video Solution](#)

424. Evaluate: $\int \sqrt{1 + \sin x} dx, 0 < x < \pi/2.$



[Watch Video Solution](#)

425. Evaluate: $\int \frac{1}{\sqrt{3x+4} - \sqrt{3x+1}} dx$



[Watch Video Solution](#)

426. Evaluate: $\int \frac{1}{\sqrt{1-2x} + \sqrt{3-2x}} dx$

 [Watch Video Solution](#)

427. Evaluate: $\int \frac{8^{1+x} + 4^{1-x}}{2^x} dx$

 [Watch Video Solution](#)

428. $\int (2x - 3)^5 + \sqrt{3x + 2} dx$

 [Watch Video Solution](#)

$$429. \int \frac{1}{(7x - 5)^3} + \frac{1}{\sqrt{5x - 4}} dx$$



Watch Video Solution

$$430. \int \frac{1}{2 - 3x} + \frac{1}{\sqrt{3x - 2}} dx$$



Watch Video Solution

$$431. \int \frac{x + 3}{(x + 1)^4} dx$$



Watch Video Solution

$$432. \int \frac{1}{\sqrt{x+1} + \sqrt{x}} dx$$



[Watch Video Solution](#)

$$433. \int \frac{1}{\sqrt{2x+3} + \sqrt{2x-3}} dx$$



[Watch Video Solution](#)

$$434. \int \frac{2x}{(2x+1)^2} dx$$



[Watch Video Solution](#)

$$435. \int \frac{1}{\sqrt{x+a} + \sqrt{x+b}} dx$$



[Watch Video Solution](#)

$$436. \int \sin x \sqrt{1 + \cos 2x} dx$$



[Watch Video Solution](#)

$$437. \int \frac{1 + \cos x}{1 - \cos x} dx$$



[Watch Video Solution](#)

$$438. \int \frac{1 - \cos x}{1 + \cos x} dx$$

 [Watch Video Solution](#)

$$439. \int \frac{1}{1 - \frac{\sin x}{2}} dx$$

 [Watch Video Solution](#)

$$440. \int \frac{1}{1 + \cos 3x} dx$$

 [Watch Video Solution](#)

$$441. \int (e^x + 1)^2 e^x dx$$



Watch Video Solution

$$442. \int \left(e^x + \frac{1}{e^x} \right)^2 dx$$



Watch Video Solution

$$443. \int \frac{1 + \cos 4x}{\cot x - \tan x} dx$$



Watch Video Solution

$$444. \int \frac{1}{\sqrt{x+3} - \sqrt{x+2}} dx$$



[Watch Video Solution](#)

$$445. \int \tan^2(2x - 3) dx$$



[Watch Video Solution](#)

$$446. \int \frac{1}{\cos^2 x (1 - \tan x)^2} dx$$



[Watch Video Solution](#)

$$447. \text{ Evaluate: } \int \frac{x^3}{(x+2)^4} dx$$



[Watch Video Solution](#)

448. Evaluate: $\int \left(\frac{x-1}{x+1} \right)^4 dx$



[Watch Video Solution](#)

449. Evaluate: $\int \frac{ax+b}{(cx+d)^2} dx$



[Watch Video Solution](#)

450. Evaluate: $\int \frac{x+2}{(x+1)^2} dx$



[Watch Video Solution](#)

451. Evaluate: $\int \frac{2 + x + x^2}{x^2(2 + x)} + \frac{2x - 1}{(x + 1)^2} dx$

 [Watch Video Solution](#)

452. Evaluate: $\int \frac{x^3}{(x + 1)^2} dx$

 [Watch Video Solution](#)

453. Evaluate: $\int \frac{x^2}{(a + bx)^2} dx$

 [Watch Video Solution](#)

454. Evaluate: $\int \frac{x^2 + 1}{(x + 1)^2} dx$

 [Watch Video Solution](#)

455. Evaluate: $\int \frac{x^3}{x + 2} dx$

 [Watch Video Solution](#)

456. Evaluate: $\int \frac{x^7}{x + 1} dx$

 [Watch Video Solution](#)

457. Evaluate: $\int \frac{x^6}{x-1} dx$

 [Watch Video Solution](#)

458. Evaluate:

(i) $\int \frac{x^2 + 5x + 2}{x + 2}$

(ii) $\int \frac{x^3}{x-2} dx$

 [Watch Video Solution](#)

459. Evaluate:

(i) $\int \frac{x^2 + x + 5}{3x + 2} dx$

$$(ii) \int \frac{2x + 3}{(x - 1)^2} dx$$



Watch Video Solution

460. Evaluate:

$$(i) \int \frac{x^2 + 3x - 1}{(x + 1)^2} dx$$

$$(ii) \int \frac{2x - 1}{(x - 1)^2} dx$$



Watch Video Solution

461. Evaluate: $\int x \sqrt{x + 2} dx$



Watch Video Solution

462. Evaluate: $\int (7x - 2)\sqrt{3x + 2} dx$



Watch Video Solution

463. Evaluate: $\int \frac{x}{\sqrt{x+a} - \sqrt{x+b}} dx$



Watch Video Solution

464. Evaluate: $\int \frac{8x + 13}{\sqrt{4x + 7}} dx$



Watch Video Solution

465. Evaluate: $\int \frac{x+1}{\sqrt{2x-1}} dx$



Watch Video Solution

466. Evaluate: $\int \frac{x}{\sqrt{x+2}} dx$



Watch Video Solution

467. Evaluate: (i) $\int \frac{x+1}{\sqrt{2x+3}} dx$ (ii) $\int x \sqrt{x+2} dx$



Watch Video Solution

468. Evaluate: (i) $\int \frac{x-1}{\sqrt{x+4}} dx$ (ii) $\int (x+2) \sqrt{3x+5} dx$



Watch Video Solution

469. Evaluate: (i) $\int \frac{2x+1}{\sqrt{3x+2}} dx$ (ii) $\int \frac{3x+5}{\sqrt{7x+9}} dx$



Watch Video Solution

470. Evaluate: $\int \frac{x}{\sqrt{x+4}} dx$ (ii) $\int \frac{2-3x}{\sqrt{1+3x}} dx$



Watch Video Solution

471. Evaluate: (i) $\int (5x + 3)\sqrt{2x - 1} dx$ (ii)

$$\int \frac{x}{\sqrt{x+a} - \sqrt{x+b}} dx$$

 [Watch Video Solution](#)

472. Evaluate: (i) $\int \sin^2 x dx$ (ii) $\int \cos^2 x dx$ (iii)

$$\int \sin^2 x \cos^2 x dx$$

 [Watch Video Solution](#)

473. Evaluate: (i) $\int \sin^3 x dx$ (ii) $\int \cos^3 x dx$ (iii)

$$\int \sin^3 x \cos^3 x dx$$

 [Watch Video Solution](#)

 Watch Video Solution

474. Evaluate: $\int \sin^4 x \, dx$

 Watch Video Solution

475. Evaluate: $\int \cos^4 x \, dx$

 Watch Video Solution

476. Evaluate: $\int \sin^4 x \cos^4 x \, dx$

 Watch Video Solution

$$477. \int \sin^2(2x + 5) dx$$



[Watch Video Solution](#)

$$478. \int \sin^3(2x + 1) dx$$



[Watch Video Solution](#)

$$479. \int \cos^4 2x dx$$



[Watch Video Solution](#)

$$480. \int \sin^2 b x dx$$



[Watch Video Solution](#)

$$481. \int \frac{\sin^2 x}{2} dx$$



[Watch Video Solution](#)

$$482. \int \frac{\cos^2 x}{2} dx$$



[Watch Video Solution](#)

$$483. \int \cos^2 nx dx$$



[Watch Video Solution](#)

484. $\int \sin x \sqrt{1 - \cos 2x} dx$



Watch Video Solution

485. Evaluate: (i) $\int \sin 4x \cos 3x dx$ (ii) $\int \sin 3x \sin 2x dx$



Watch Video Solution

486. Evaluate: (i) $\int \sin 3x \cos 4x dx$ (ii) $\int \cos 2x \cos 4x dx$



Watch Video Solution

487. Evaluate: $\int \cos 2x \cos 4x \cos 6x \, dx$



Watch Video Solution

488. Evaluate: $\int \sin x \sin 2x \sin 3x \, dx$



Watch Video Solution

489. Evaluate: $\int \frac{\sin 4x}{\sin x} \, dx$



Watch Video Solution

490. Evaluate: $\int \frac{\cos 5x + \cos 4x}{1 - 2\cos 3x} dx$

 [Watch Video Solution](#)

491. Integrate: $\int \sin 4x \cos 7x dx$

 [Watch Video Solution](#)

492. Integrate: $\int \cos 4x \cos 3x dx$

 [Watch Video Solution](#)

493. Integrate: $\int \cos^m x \cos^n x \, dx, \quad m \neq n$



Watch Video Solution

494. Integrate: $\int \sin^m x \cos^n x \, dx, \quad m \neq n$



Watch Video Solution

495. Integrate: $\int \sin^2 x \sin^4 x \sin^6 x \, dx$



Watch Video Solution

496. Integrate: $\int \sin x \cos 2x \sin 3x \, dx$



Watch Video Solution

497. Evaluate: (i) $\int \frac{1}{\sqrt{1 + \cos 2x}} \, dx$ (ii) $\int \frac{1}{\sqrt{1 - \cos x}} \, dx$



Watch Video Solution

498. Evaluate: (i) $\int \sqrt{\frac{1 - \cos 2x}{1 + \cos 2x}} \, dx$ (ii) $\int \sqrt{\frac{1 + \cos x}{1 - \cos x}} \, dx$



Watch Video Solution

499. Evaluate: $\int \frac{1}{\sqrt{1 + \sin 2x}} dx$

 [Watch Video Solution](#)

500. Evaluate: $\int \frac{1}{\sqrt{1 - \sin x}} dx$

 [Watch Video Solution](#)

501. Evaluate: $\int \frac{\sin(x - a)}{\sin x} dx$

 [Watch Video Solution](#)

502. Evaluate: $\int \frac{\sin x}{\sin(x - a)} dx$



[Watch Video Solution](#)

503. Evaluate: $\int \frac{1}{\sin(x - a)\sin(x - b)} dx$



[Watch Video Solution](#)

504. Evaluate: $\int \frac{1}{\sin(x - a)\cos(x - b)} dx$



[Watch Video Solution](#)

505. Evaluate: $\int \frac{1}{\cos(x - a)\cos(x - b)} dx$

 [Watch Video Solution](#)

506. Evaluate: $\int \frac{\sin(x + a)}{\sin(x + b)} dx$

 [Watch Video Solution](#)

507. Evaluate: $\int \frac{2x + 5}{x^2 + 5x - 7} dx$

 [Watch Video Solution](#)

508. Evaluate: $\int \frac{1 - \tan x}{1 + \tan x} dx$

 [Watch Video Solution](#)

509. Evaluate: $\int \frac{\sec^2 x}{3 + \tan x} dx$

 [Watch Video Solution](#)

510. Evaluate: $\int \frac{e^x - e^{-x}}{e^x + e^{-x}} dx$

 [Watch Video Solution](#)

511. Evaluate: $\int e^{3\log x} (x^4 + 1)^{-1} dx$



Watch Video Solution

512. Evaluate: $\int \frac{1}{1 + e^{-x}} dx$



Watch Video Solution

513. Evaluate: $\int \frac{\sin 2x}{a^2 \sin^2 x + b^2 \cos^2 x} dx$



Watch Video Solution

514. Evaluate: $\int \frac{\tan x}{a + b \tan^2 x} dx$



[Watch Video Solution](#)

515. Evaluate: $\int \frac{\sin x - x \cos x}{x(x + \sin x)} dx$



[Watch Video Solution](#)

516. Evaluate: $\int \tan x \tan 2x \tan 3x dx$



[Watch Video Solution](#)

517. Evaluate: $\int \tan(x - \theta)\tan(x + \theta)\tan 2x \, dx$



Watch Video Solution

518. Evaluate: $\int \{1 + 2\tan x(\tan x + \sec x)\}^{\frac{1}{2}} dx$



Watch Video Solution

519. Evaluate: $\int \frac{\sin 2x}{\sin\left(x - \frac{\pi}{3}\right)\sin\left(x + \frac{\pi}{3}\right)} dx$



Watch Video Solution

520. Evaluate: (i) $\int \frac{1}{\sqrt{1 - \cos 2x}} dx$ (ii) $\int \frac{1}{\sqrt{1 + \cos x}} dx$

 [Watch Video Solution](#)

521. Evaluate: (i) $\int \sqrt{\frac{1 + \cos 2x}{1 - \cos 2x}} dx$ (ii) $\int \sqrt{\frac{1 - \cos x}{1 + \cos x}} dx$

 [Watch Video Solution](#)

522. Evaluate: (i) $\int \frac{\sec x}{\sec 2x} dx$ (ii) $\int \frac{\cos 2x}{(\cos x + \sin x)^2} dx$

 [Watch Video Solution](#)

523. Evaluate: (i) $\int \frac{\sin(x - a)}{\sin(x - b)} dx$ (ii) $\int \frac{\sin(x - \alpha)}{\sin(x + \alpha)} dx$



Watch Video Solution

524. Evaluate: (i) $\int \frac{1 + \tan x}{1 - \tan x} dx$ (ii) $\int \frac{\cos x}{\cos(x - a)} dx$



Watch Video Solution

525. Evaluate: (i) $\int \sqrt{\frac{1 - \sin 2x}{1 + \sin 2x}} dx$ (ii) $\int \frac{e^{3x}}{e^{3x} + 1} dx$



Watch Video Solution

526. Evaluate: (i) $\int \frac{\sec x \tan x}{3 \sec x + 5} dx$ (ii) $\int \frac{1 - \cot x}{1 + \cot x} dx$

 [Watch Video Solution](#)

527. Evaluate: (i) $\int \frac{\sec x \operatorname{cosec} x}{\log(\tan x)} dx$ (ii) $\int \frac{1}{x(3 + \log x)} dx$

 [Watch Video Solution](#)

528. Evaluate: (i) $\int \frac{e^x + 1}{e^x + x} dx$ (ii) $\int \frac{1}{x \log x} dx$

 [Watch Video Solution](#)

529. Evaluate: (i) $\int \frac{\sin 2x}{a \cos^2 x + b \sin^2 x} dx$ (ii) $\int \frac{\cos x}{2 + 3 \sin x} dx$

 [Watch Video Solution](#)

530. Evaluate: (i) $\int \frac{1 - \sin x}{x + \cos x} dx$ (ii) $\int \frac{a}{b + ce^x} dx$

 [Watch Video Solution](#)

531. Evaluate: (i) $\int \frac{1}{e^x + 1} dx$ (ii) $\int \frac{\cot x}{\log \sin x} dx$

 [Watch Video Solution](#)

532. Evaluate: (i) $\int \frac{e^{2x}}{e^{2x} - 2} dx$ (ii) $\int \frac{2\cos x - 3\sin x}{6\cos x + 4\sin x} dx$

 [Watch Video Solution](#)

533. Evaluate: (i) $\int \frac{\cos 2x + x + 1}{x^2 + \sin 2x + 2x} dx$ (ii)

$\int \frac{1}{\cos(x+a)\cos(x+b)} dx$

 [Watch Video Solution](#)

534. Evaluate: (i) $\int \frac{-\sin x + 2\cos x}{2\sin x + \cos x} dx$ (ii)

$\int \frac{\cos 4x - \cos 2x}{\sin 4x - \sin 2x} dx$

 [Watch Video Solution](#)

535. Evaluate: (i) $\int \frac{\sec x}{\log(\sec x + \tan x)} dx$ (ii)

$$\int \frac{\operatorname{cosec} x}{\log \tan \left(\frac{x}{2} \right)} dx$$

 [Watch Video Solution](#)

536. Evaluate: (i) $\int \frac{1}{x \log x \log(\log x)} dx$ (ii) $\int \frac{\operatorname{cosec}^2 x}{1 + \cot x} dx$

 [Watch Video Solution](#)

537. Evaluate: (i) $\int \frac{10x^9 + 10^x(\log)_e 10}{10^x + x^{10}} dx$ (ii)

$\int \frac{1 - \sin 2x}{x + \cos^2 x} dx$

 [Watch Video Solution](#)

538. Evaluate: (i) $\int \frac{1 + \tan x}{x + \log \sec x} dx$ (ii) $\int \frac{\sin 2x}{a^2 + b^2 \sin^2 x} dx$

 [Watch Video Solution](#)

539. Evaluate: (i) $\int \frac{x + 1}{x(x + \log x)} dx$ (ii)

$\int \frac{1}{\sqrt{1 - x^2} (2 + 3 \sin^{-1} x)} dx$

 [Watch Video Solution](#)



Watch Video Solution

540. Evaluate: (i) $\int \frac{\sec^2 x}{\tan x + 2} dx$ (ii) $\int \frac{2\cos 2x + \sec^2 x}{\sin 2x + \tan x - 5} dx$



Watch Video Solution

541. Evaluate: (i) $\int \frac{\sin 2x}{\sin 5x \sin 3x} dx$ (ii) $\int \frac{1 + \cot x}{x + \log \sin x} dx$



Watch Video Solution

542. Evaluate: (i) $\int \frac{1}{\sqrt{x}(\sqrt{x} + 1)} dx$ (ii)

$\int \tan 2x \tan 3x \tan 5x dx$



Watch Video Solution

 Watch Video Solution

543. Evaluate: (i) $\int \{1 + \tan x \tan(x + \theta)\} dx$ (ii)

$$\int \frac{\sin 2x}{\sin\left(x - \frac{\pi}{6}\right)\sin\left(x + \frac{\pi}{6}\right)} dx$$

 Watch Video Solution

544. Evaluate: (i) $\int \frac{e^{x-1} + x^{e-1}}{e^x + x^e} dx$ (ii) $\int \frac{1}{\sin x \cos^2 x} dx$

 Watch Video Solution

545. Evaluate: $\int \frac{1}{\cos 3x - \cos x} dx$



Watch Video Solution

546. Evaluate: (i) $\int \frac{3x + 1}{(3x^2 + 2x + 1)^3} dx$ (ii) $\int \sin^3 x \cos x dx$



Watch Video Solution

547. Evaluate: (i) $\int \tan^3 x \sec^2 x dx$ (ii) $\int \frac{(\log x)^3}{x} dx$



Watch Video Solution

548. Evaluate: (i) $\int \frac{4 (\sin^{-1}x)^3}{\sqrt{1-x^2}} dx$ (ii) $\int \frac{\log\left(\frac{\tan x}{2}\right)}{\sin x} dx$

 [Watch Video Solution](#)

549. Evaluate: (i) $\int \frac{\sin x}{\sqrt{3+2\cos x}} dx$

 [Watch Video Solution](#)

550. Evaluate: (i) $\int \frac{(1+\log x)^2}{x} dx$ (ii) $\int \frac{\sec^2(2\tan^{-1}x)}{1+x^2} dx$

 [Watch Video Solution](#)

551. Evaluate: (i) $\int \frac{\tan x \sec^2 x}{(a + b \tan^2 x)^2} dx$ (ii) $\int \sec^3 x \tan x dx$

 [Watch Video Solution](#)

552. Evaluate: (i) $\int x^3 \sin x^4 dx$ (ii) $\int e^{-x} \operatorname{cosec}^2(2e^{-x} + 5) dx$ (iii) $\int \frac{x^2 \tan^{-1} x^3}{1 + x^6} dx$

 [Watch Video Solution](#)

553. Evaluate:

(i) $\int \sqrt{\tan x} (1 + \tan^2 x) dx$

(ii) $\int \{f(ax + b)\}^n f'(ax + b) dx, \quad n \neq -1$



[Watch Video Solution](#)

554. Evaluate: $\int \frac{\sin 2x}{(a + b \cos x)^2}$



[Watch Video Solution](#)

555. Evaluate: $\int (2)^2 \wedge (2)^x \ 2^2 \wedge x \ 2^x dx$



[Watch Video Solution](#)

556. Evaluate: $\int \frac{1}{\sqrt{\sin^3 x \sin(x + \alpha)}} dx, \quad \alpha \neq n\pi, \quad n \in \mathbb{Z}$



Watch Video Solution

557. Evaluate: $\int \frac{(x^4 - x)^{1/4}}{x^5} dx$



Watch Video Solution

558. Evaluate: $\int \frac{\sec^4 x}{\sqrt{\tan x}} dx$



Watch Video Solution

559. Evaluate: $\int \frac{\cos^9 x}{\sin x} dx$



 [Watch Video Solution](#)

560. Evaluate: $\int \frac{1}{\sqrt[4]{(x-1)^3(x+2)^5}} dx$.

 [Watch Video Solution](#)

561. Evaluate: (i) $\int x^x(1 + \log x) dx$ (ii) $\int x^{2x} (1 + \log x) dx$

 [Watch Video Solution](#)

562. Evaluate: $\int \frac{x}{x - \sqrt{x^2 - 1}} dx$

 [Watch Video Solution](#)

563. Evaluate: $\int \frac{\cos^3 x}{\sin^2 x + \sin x} dx$

 [Watch Video Solution](#)

564. Evaluate: (i) $\int \frac{\log x}{x} dx$ (ii) $\int \frac{\log\left(1 + \frac{1}{x}\right)}{x(1+x)} dx$

 [Watch Video Solution](#)

565. Evaluate: (i) $\int \frac{(1 + \sqrt{x})^2}{\sqrt{x}} dx$ (ii) $\int \sqrt{1 + e^x} e^x dx$

 [Watch Video Solution](#)

566. Evaluate: (i) $\int \cos^2 x \sin x \, dx$ (ii) $\int \frac{e^x}{(1 + e^x)^2} \, dx$

 [Watch Video Solution](#)

567. Evaluate: (i) $\int \cot^3 x \operatorname{cosec}^2 x \, dx$ (ii) $\int \frac{\{e^m \sin^{-1} x\}}{\sqrt{1 - x^2}} \, dx$

 [Watch Video Solution](#)

568. Evaluate: (i) $\int \frac{1 + \sin x}{\sqrt{x - \cos x}} dx$ (ii)

$$\int \frac{1}{\sqrt{1-x^2} (\sin^{-1} x)^2} dx$$

 [Watch Video Solution](#)

569. Evaluate: (i) $\int \frac{\cot x}{\sqrt{\sin x}} dx$ (ii) $\int \frac{\tan x}{\sqrt{\cos x}} dx$

 [Watch Video Solution](#)

570. Evaluate: (i) $\int \frac{\cos^3 x}{\sqrt{\sin x}} dx$ (ii) $\int \frac{\sin^3 x}{\sqrt{\cos x}} dx$

 [Watch Video Solution](#)

571. Evaluate: (i) $\int \frac{1}{\sqrt{\tan^{-1}x(1+x^2)}} dx$ (ii) $\int \frac{\sqrt{\tan x}}{\sin x \cos x} dx$

 [Watch Video Solution](#)

572. Evaluate: (i) $\int \frac{1}{x} (\log x)^2 dx$ (ii) $\int \sin^5 x \cos x dx$

 [Watch Video Solution](#)

573. Evaluate (i) $\int \tan^{3/2} x \sec^2 x dx$ (ii) $\int \frac{x^3}{(x^2 + 1)^3} dx$

 [Watch Video Solution](#)

574. Evaluate: (i) $\int (4x + 2)\sqrt{x^2 + x + 1} dx$ (ii)

$$\int \frac{4x + 3}{\sqrt{2x^2 + 3x + 1}} dx$$

 [Watch Video Solution](#)

575. Evaluate: (i) $\int \frac{1}{1 + \sqrt{x}} dx$ (ii) $\int e^{\cos x} \wedge (2x)\sin 2x dx$

 [Watch Video Solution](#)

576. Evaluate: (i) $\int \frac{1 + \cos x}{(x + \sin x)^3} dx$ (ii) $\int \frac{\cos x - \sin x}{1 + \sin 2x} dx$

 [Watch Video Solution](#)

577. Evaluate: (i) $\int \frac{\sin 2x}{(a + b \cos 2x)^2} dx$ (ii) $\int \frac{\log x^2}{x} dx$

 [Watch Video Solution](#)

578. Evaluate: (i) $\int \frac{\sin x}{(1 + \cos x)^2} dx$ (ii) $\int \cot x \log \sin x dx$

 [Watch Video Solution](#)

579. Evaluate: (i) $\int \sec x \log(\sec x + \tan x) dx$ (ii)
 $\int \operatorname{cosec} x \log(\operatorname{cosec} x - \cot x) dx$

 [Watch Video Solution](#)

580. Evaluate: (i) $\int x^3 \cos x^4 dx$ (ii) $\int x^3 \sin x^4 dx$

 [Watch Video Solution](#)

581. Evaluate: (i) $\int \frac{x^3 \sin^{-1} x^2}{\sqrt{1-x^4}} dx$ (ii) $\int x^3 \sin(x^4 + 1) dx$

 [Watch Video Solution](#)

582. Evaluate: (i) $\int \frac{(x+1)e^x}{\cos^2(xe^x)} dx$ (ii)

$$\int x^2 e^{x^3} \cos(e^{x^3}) dx$$

 [Watch Video Solution](#)

583. Evaluate: (i) $\int 2x \sec^3(x^2 + 3) \tan(x^2 + 3) dx$ (ii)

$$\int \left(\frac{x+1}{x} \right) (x + \log x)^2 dx$$



Watch Video Solution

584. Evaluate: (i) $\int \tan x \sec^2 x \sqrt{1 - \tan^2 x} dx$ (ii)

$$\int \log x \frac{\sin \{1 + (\log x)^2\}}{x} dx$$



Watch Video Solution

585. Evaluate: (i) $\int \frac{1}{x^2} \cos^2 \left(\frac{1}{x} \right) dx$ (ii) $\int \sec^4 x \tan x dx$



Watch Video Solution

586. Evaluate: (i) $\int \frac{e^{\sqrt{x}} \cos(e^{\sqrt{x}})}{\sqrt{x}} dx$ (ii) $\int \frac{\cos^5 x}{\sin x} dx$



Watch Video Solution

587. Evaluate: (i) $\int \frac{\sin \sqrt{x}}{\sqrt{x}} dx$ (ii) $\int \frac{(x+1)e^x}{\sin^2(xe^x)} dx$



Watch Video Solution

588. Evaluate: (i) $\int 5^x + \tan^{-1}x \left(\frac{x^2 + 2}{x^2 + 1} \right) dx$ (ii)

$$\int \frac{e^{m \sin^{-1}x}}{\sqrt{1-x^2}} dx$$

 [Watch Video Solution](#)

589. Evaluate: (i) $\int \frac{\cos\sqrt{x}}{\sqrt{x}} dx$ (ii) $\int \left(\frac{\sin(\tan^{-1}x)}{1+x^2} \right) dx$

 [Watch Video Solution](#)

590. Evaluate: (i) $\int \left(\frac{\sin(\log x)}{x} \right) dx$ (ii) $\int \frac{e^{m \tan^{-1}x}}{1+x^2} dx$



 [Watch Video Solution](#)

591. Evaluate: (i) $\int \frac{x}{\sqrt{x^2 + a^2} + \sqrt{x^2 - a^2}} dx$ (ii)

$$\int \frac{x \tan^{-1} x^2}{1 + x^4} dx$$

 [Watch Video Solution](#)

592. Evaluate: (i) $\int \frac{(\sin^{-1} x)^3}{\sqrt{1 - x^2}} dx$ (ii) $\int \left(\frac{\sin(2 + 3 \log x)}{x} \right) dx$

 [Watch Video Solution](#)

593. Evaluate: (i) $\int x e^{x^2} dx$ (ii) $\int \frac{e^{2x}}{1 + e^x} dx$

 [Watch Video Solution](#)

594. Evaluate: (i) $\int \frac{\sec^2 \sqrt{x}}{\sqrt{x}} dx$ (ii) $\int \tan^3 2x \sec 2x dx$

 [Watch Video Solution](#)

595. Evaluate: (i) $\int \frac{x + \sqrt{x+1}}{x+2} dx$ (ii)

$\int 5^5 \wedge 5^x \ 5^5 \wedge x \ 5^x dx$

 [Watch Video Solution](#)

596. Evaluate: (i) $\int \frac{1}{x \sqrt{x^4 - 1}} dx$ (ii) $\int \sqrt{e^x - 1} dx$

 [Watch Video Solution](#)

597. Evaluate: (i) $\int \frac{1}{(x + 1)(x^2 + 2x + 2)} dx$ (ii)

$$\int \frac{x^5}{\sqrt{1 + x^3}} dx$$

 [Watch Video Solution](#)

598. Evaluate: (i) $\int 4x^3 \sqrt{5 - x^2} dx$ (ii) $\int \frac{1}{\sqrt{x} + x} dx$

 [Watch Video Solution](#)

599. Evaluate: (i) $\int \frac{1}{x^2(x^4 + 1)^{3/4}} dx$ (ii) $\int \frac{\sin^5 x}{\cos^4 x} dx$

 [Watch Video Solution](#)

600. Evaluate: $\int \frac{x^2}{\sqrt{x+2}} dx$

 [Watch Video Solution](#)

601. Evaluate: $\int x^2 \sqrt{1+x} dx$

 [Watch Video Solution](#)

602. Evaluate: $\int x (1 - x)^n dx$



Watch Video Solution

603. Evaluate: $\int \frac{x^5}{x + 1} dx$



Watch Video Solution

604. Evaluate: $\int \frac{x^2}{(a + bx)^2} dx$



Watch Video Solution

605. Evaluate: $\int \frac{1}{x^{1/2} + x^{1/3}} dx$

 [Watch Video Solution](#)

606. Evaluate: $\int \frac{x^{1/2}}{1 + x^{3/4}} dx$

 [Watch Video Solution](#)

607. Evaluate: $\int \frac{\sqrt{x}}{\sqrt{x} - x^{3/4}} dx$

 [Watch Video Solution](#)

608. Evaluate: $\int \left(\frac{1}{(x+1)^{\frac{1}{3}} + \sqrt{x+1}} \right) dx$

 [Watch Video Solution](#)

609. $\int x^2 \sqrt{x+2} dx$ (ii) $\int \frac{x^2}{\sqrt{x-1}} dx$

 [Watch Video Solution](#)

610. $\int \frac{x^2}{\sqrt{3x+4}} dx$ (ii) $\int \frac{2x-1}{(x-1)^2} dx$

 [Watch Video Solution](#)

611. $\int (2x^2 + 3)\sqrt{x+2} dx$ (ii) $\int \frac{x^2 + 3x + 1}{(x+1)^2} dx$



Watch Video Solution

612. $\int \frac{x^2}{\sqrt{1-x}} dx$ (ii) $\int x(1-x)^{23} dx$



Watch Video Solution

613. $\int \frac{1}{\sqrt{x} + \sqrt[4]{x}} dx$ (ii) $\int \frac{1}{x^{1/3}(x^{1/3} - 1)} dx$



Watch Video Solution

614. Evaluate: (i) $\int \sec^4 x \, dx$



Watch Video Solution

615. Evaluate: (i) $\int \cot^2 x \operatorname{cosec}^4 x \, dx$ (ii) $\int \operatorname{cosec}^4 x \, dx$



Watch Video Solution

616. Evaluate: $\int \tan^3 x \sec^3 x \, dx$



Watch Video Solution

617. Evaluate: $\int \sec^n x \tan x \, dx$



Watch Video Solution

618. Evaluate: $\int \tan^3 x \, dx$



Watch Video Solution

619. Evaluate: $\int \tan^4 x \, dx$



Watch Video Solution

620. Evaluate: $\int \cot^4 x \, dx$



Watch Video Solution

621. $\int \cot^4 x \, dx \cot x \, dx$



Watch Video Solution

622. Prove that: $\int \tan^n x \, dx = \frac{1}{n-1} \tan^{n-1} x - \int \tan^{n-2} x \, dx$



Watch Video Solution

623. Evaluate: (i) $\int \tan^3 x \sec^2 x \, dx$ (ii) $\int \tan x \sec^4 x \, dx$



[Watch Video Solution](#)

624. Evaluate: (i) $\int \tan^5 x \sec^4 x \, dx$ (ii) $\int \sec^6 x \tan x \, dx$



[Watch Video Solution](#)

625. Evaluate: (i) $\int \tan^5 x \, dx$ (ii) $\int \sqrt{\tan x} \sec^4 x \, dx$



[Watch Video Solution](#)

626. Evaluate: (i) $\int \sec^4 2x \, dx$ (ii) $\int \operatorname{cosec}^4 3x \, dx$

 [Watch Video Solution](#)

627. Evaluate: (i) $\int \cot^n x \operatorname{cosec}^2 x \, dx, \quad n \neq -1$ (ii)

$$\int \cot^5 x \operatorname{cosec}^4 x \, dx$$

 [Watch Video Solution](#)

628. Evaluate: (i) $\int \cot^5 x \, dx$ (ii) $\int \cot^6 x \, dx$

 [Watch Video Solution](#)

629. Evaluate: $\int \sin^3 x \cos^4 x \, dx$

 [Watch Video Solution](#)

630. Evaluate: $\int \sin^2 x \cos^5 x \, dx$

 [Watch Video Solution](#)

631. Evaluate: $\int \sin^3 x \cos^5 x \, dx$

 [Watch Video Solution](#)

632. Evaluate: $\int \cos^3 x e^{\log \sin x} \, dx$.



 [Watch Video Solution](#)

633. Evaluate: $\int \frac{\sin^4 x}{\cos^8 x} dx$

 [Watch Video Solution](#)

634. Evaluate: $\int \frac{1}{\sqrt{\sin^3 x \cos^5 x}} dx$

 [Watch Video Solution](#)

635. Evaluate: $\int \sec^{4\sqrt{3}} x \operatorname{cosec}^{8\sqrt{3}} x dx$

 [Watch Video Solution](#)

636. Evaluate: $\int \frac{\sin^2 x}{\cos^{14} x} dx$



Watch Video Solution

637. Evaluate: (i) $\int \sin^4 x \cos^3 x dx$ (ii) $\int \sin^5 x dx$



Watch Video Solution

638. Evaluate: (i) $\int \cos^5 x dx$ (ii) $\int \sin^5 x \cos x dx$



Watch Video Solution

639. Evaluate: (i) $\int \sin^3 x \cos^6 x \, dx$ (ii) $\int \cos^7 x \, dx$

 [Watch Video Solution](#)

640. Evaluate: (i) $\int x \cos^3 x^2 \sin x^2 \, dx$ (ii) $\int \sin^7 x \, dx$

 [Watch Video Solution](#)

641. Evaluate: (i) $\int \sin^3 x \cos^5 x \, dx$ (ii) $\int \frac{1}{\sin^4 x \cos^2 x} \, dx$

 [Watch Video Solution](#)

642. Evaluate: (i) $\int \frac{1}{\sin^3 x \cos^5 x} \, dx$ (ii) $\int \frac{1}{\sin^3 x \cos^2 x} \, dx$



Watch Video Solution

643. Evaluate: $\int \frac{1}{\sin x \cos^3 x} dx$



Watch Video Solution

644. Evaluate: $\int \frac{x}{(a^2 - x^2)^{3/2}} dx$.



Watch Video Solution

645. Evaluate: $\int \frac{x^2}{\sqrt{1 - x^2}} dx$



 [Watch Video Solution](#)

646. Evaluate: $\int \frac{x^2 - 3x + 1}{\sqrt{1 - x^2}} dx$

 [Watch Video Solution](#)

647. Evaluate: $\int \frac{x^2}{\sqrt{1 - x}} dx$

 [Watch Video Solution](#)

648. Evaluate: $\int \frac{1}{(a^2 + x^2)^2} dx$

 [Watch Video Solution](#)

 Watch Video Solution

649. Evaluate: $\int \frac{1}{x^4 + x^6} dx$

 Watch Video Solution

650. Evaluate: $\int \frac{1}{x^3 \sqrt{x^2 - a^2}} dx$

 Watch Video Solution

651. Evaluate: $\int \frac{1}{x \sqrt{x^4 - 1}} dx$

 Watch Video Solution

652. Evaluate: $\int \frac{x}{(1-x^4)^{3/2}} dx.$

 [Watch Video Solution](#)

653. Evaluate: $\int \frac{x^7}{(a-x^2)^5} dx.$

 [Watch Video Solution](#)

654. Evaluate: $\int \frac{1}{(1+\sqrt{x})\sqrt{x-x^2}} dx$

 [Watch Video Solution](#)

655. Evaluate: $\int \frac{1}{(x^2 + 2x + 2)^2} dx$

 [Watch Video Solution](#)

656. Evaluate: $\int \frac{1 + x^2}{\left(\frac{1}{x} - x\right)\sqrt{1 + x^2 + x^4}} dx$

 [Watch Video Solution](#)

657. Evaluate: $\int \frac{x - 1}{(x + 1)\sqrt{x^3 + x^2 + x}} dx$

 [Watch Video Solution](#)

658. Evaluate: (i) $\int \frac{x^2}{(a^2 - x^2)^{3/2}} dx$ (ii) $\int \frac{x^7}{(a^2 - x^2)^5} dx$



Watch Video Solution

659. Evaluate: $\int \cos \left\{ 2 \cot^{-1} \sqrt{\frac{1+x}{1-x}} \right\}$



Watch Video Solution

660. Evaluate: $\int \frac{1}{(x^2 + 2x + 10)^2} dx$



Watch Video Solution

 Watch Video Solution

661. Evaluate: (i) $\int \frac{1}{4 + 9x^2} dx$ (ii) $\int \frac{1}{9x^2 - 4} dx$ (iii)

$$\int \frac{1}{16 - 9x^2} dx$$

 Watch Video Solution

662. Evaluate: (i) $\int \frac{1}{\sqrt{9 - 25x^2}} dx$ (ii) $\int \frac{1}{\sqrt{16x^2 + 25}} dx$

 Watch Video Solution

663. Evaluate: $\int \frac{1}{\sqrt{4x^2 - 9}} dx$

 [Watch Video Solution](#)

664. Evaluate: $\int \frac{x^4}{x^2 + 1} dx$

 [Watch Video Solution](#)

665. Evaluate: (i) $\int \frac{1}{a^2 - b^2 x^2} dx$ (ii) $\int \frac{1}{a^2 x^2 - b^2} dx$

 [Watch Video Solution](#)

666. Evaluate: (i) $\int \frac{1}{a^2 x^2 - b^2} dx$ (ii) $\int \frac{x^2 - 1}{x^2 + 4} dx$

 [Watch Video Solution](#)

667. Evaluate: (i) $\int \frac{1}{\sqrt{1 + 4x^2}} dx$ (ii) $\int \frac{1}{\sqrt{a^2 + b^2 x^2}} dx$

 [Watch Video Solution](#)

668. Evaluate: (i) $\int \frac{1}{\sqrt{a^2 - b^2 x^2}} dx$ (ii) $\int \frac{1}{\sqrt{(2 - x)^2 + 1}} dx$

 [Watch Video Solution](#)

669. Evaluate: (i) $\int \frac{1}{\sqrt{(2 - x)^2 - 1}} dx$ (ii) $\int \frac{x^4 + 1}{x^2 + 1} dx$

 [Watch Video Solution](#)

670. Evaluate: $\int \frac{1}{x^2 - x + 1} dx$

 [Watch Video Solution](#)

671. Evaluate: $\int \frac{1}{2x^2 - x - 1} dx$

 [Watch Video Solution](#)

672. Evaluate: $\int \frac{1}{3 - 2x - x^2} dx$

 [Watch Video Solution](#)

673. $\int \frac{1}{3x^2 + 13x - 10} dx$

 [Watch Video Solution](#)

674. Evaluate: (i) $\int \frac{1}{4x^2 + 4x + 5} dx$

 [Watch Video Solution](#)

675. Evaluate: (i) $\int \frac{1}{4x^2 + 12x + 5} dx$ (ii)

$\int \frac{1}{x^2 - 10x + 34} dx$

 [Watch Video Solution](#)

676. Evaluate: (i) $\frac{1}{1+x-x^2} dx$ (ii) $\int \frac{1}{2x^2-x-1} dx$



Watch Video Solution

677. Evaluate: (i) $\int \frac{1}{x^2+6x+13} dx$



Watch Video Solution

678. Evaluate: (i) $\int \frac{x}{x^4+x^2+1} dx$ (ii) $\int \frac{e^x}{e^{2x}+6e^x+5} dx$



Watch Video Solution

679. Evaluate: (i) $\int \frac{\sin x}{1 + \cos^2 x} dx$ (ii) $\int \frac{2x^3}{4 + x^8} dx$

 [Watch Video Solution](#)

680. $\int \frac{1}{(x)(6(\log x)^2 + 7\log x + 2)} dx$

 [Watch Video Solution](#)

681. Evaluate: $\int \frac{e^{-x}}{16 + 9e^{-2x}} dx$

 [Watch Video Solution](#)

682. Evaluate: $\int \frac{1}{x(x^n + 1)} dx$ (ii) $\int \frac{1}{x(x^5 + 1)} dx$



Watch Video Solution

683. Evaluate: $\int \frac{\sin x + \cos x}{9 + 16\sin 2x} dx$



Watch Video Solution

684. $\int \frac{dx}{\sin x + \sec x}$



Watch Video Solution

685. Evaluate: $\int \frac{\sec^2 x}{1 - \tan^2 x} dx$



Watch Video Solution

686. Evaluate: $\int \frac{e^x}{1 + e^{2x}} dx$



Watch Video Solution

687. Evaluate: $\int \frac{\cos x}{\sin^2 x + 4\sin x + 5} dx$



Watch Video Solution

688. Evaluate: $\int \frac{e^x}{e^{2x} + 5e^x + 6} dx$



Watch Video Solution

689. Evaluate: $\int \frac{e^{3x}}{4e^{6x} - 9} dx$



Watch Video Solution

690. Evaluate: $\int \frac{1}{e^x + e^{-x}} dx$



Watch Video Solution

691. Evaluate: $\int \frac{x}{x^4 + 2x^2 + 3} dx$

 [Watch Video Solution](#)

692. Evaluate: $\int \frac{3x^5}{1 + x^{12}} dx$

 [Watch Video Solution](#)

693. Evaluate: $\int \frac{x^2}{x^6 - a^6} dx$

 [Watch Video Solution](#)

694. Evaluate: $\int \frac{x^2}{x^6 - a^6} dx$

 [Watch Video Solution](#)

695. Evaluate: $\int \frac{1}{x(x^6 + 1)} dx$

 [Watch Video Solution](#)

696. Evaluate: $\int \frac{x}{x^4 - x^2 + 1} dx$

 [Watch Video Solution](#)

697. Evaluate: $\int \frac{x}{3x^4 - 18x^2 + 11} dx$



Watch Video Solution

698. Evaluate: $\int \frac{e^x}{(1 + e^x)(2 + e^x)} dx$



Watch Video Solution

699. Evaluate: $\int \frac{1}{\cot x + \operatorname{cosec} x} dx$



Watch Video Solution

700. Evaluate: (i) $\int \frac{1}{\sqrt{(x-1)(x-2)}} dx$ (ii)

$$\int \frac{1}{\sqrt{9+8x-x^2}} dx$$

 [Watch Video Solution](#)

701. Evaluate: (i) $\int \frac{1}{\sqrt{x(1-2x)}} dx$ (ii) $\int \frac{1}{\sqrt{2x^2+3x-2}} dx$

 [Watch Video Solution](#)

702. Evaluate: $\int \frac{1}{\sqrt{(x-a)(x-b)}} dx$

 [Watch Video Solution](#)

703. Evaluate: $\int \frac{1}{\sqrt{x^2 - 4x + 2}} dx$

 [Watch Video Solution](#)

704. Evaluate: $\int \frac{1}{\sqrt{2x - x^2}} dx$

 [Watch Video Solution](#)

705. Evaluate: $\int \frac{1}{\sqrt{8 + 3x - x^2}} dx$

 [Watch Video Solution](#)

706. Evaluate: $\int \frac{1}{\sqrt{5 - 4x - 2x^2}} dx$

 [Watch Video Solution](#)

707. Evaluate: $\int \frac{1}{\sqrt{3x^2 + 5x + 7}} dx$

 [Watch Video Solution](#)

708. Evaluate: $\int \frac{1}{(x - \alpha)(\beta - x)} dx, (\beta > \alpha)$

 [Watch Video Solution](#)

709. Evaluate: $\int \frac{1}{\sqrt{7 - 3x - 2x^2}} dx$



[Watch Video Solution](#)

710. Evaluate: $\int \frac{1}{\sqrt{16 - 6x - x^2}} dx$



[Watch Video Solution](#)

711. Evaluate: $\int \frac{1}{\sqrt{7 - 6x - x^2}} dx$



[Watch Video Solution](#)

712. Evaluate: $\int \frac{1}{\sqrt{5x^2 - 2x}} dx$

 [Watch Video Solution](#)

713. Evaluate: (i) $\int \frac{e^x}{\sqrt{4 - e^{2x}}} dx$ (ii) $\int \frac{x^2}{\sqrt{1 - x^6}} dx$

 [Watch Video Solution](#)

714. Evaluate: (i) $\int \frac{\sec^2 x}{\sqrt{16 + \tan^2 x}} dx$ (ii)

$$\int \frac{1}{x \sqrt{(\log x)^2 - 5}} dx$$

 [Watch Video Solution](#)

715. Evaluate: (i) $\int \frac{a^x}{\sqrt{1 - a^{2x}}} dx$

 [Watch Video Solution](#)

716. Evaluate: (i) $\int \frac{e^x}{\sqrt{5 - 4e^x - e^{2x}}} dx$ (ii)

$$\int \frac{\cos x}{\sqrt{\sin^2 x - 2\sin x - 3}} dx$$

 [Watch Video Solution](#)

717. Evaluate: $\int \frac{\sqrt{x}}{a^3 - x^3} dx$



Watch Video Solution

718. Evaluate: $\int \sqrt{\sec x - 1} dx$



Watch Video Solution

719. Evaluate: $\frac{1}{\sqrt{1 - e^{2x}}} dx$



Watch Video Solution

720. Evaluate: (i) $\int \frac{\sin(x - a)}{\sin(x - b)} dx$



Watch Video Solution

721. Evaluate: $\int \frac{\sin x + \cos x}{\sqrt{1 + \sin 2x}} dx$

 [Watch Video Solution](#)

722. Evaluate: $\int \frac{x}{\sqrt{x^4 + a^4}} dx$

 [Watch Video Solution](#)

723. Evaluate: $\int \frac{\sec^2 x}{\sqrt{4 + \tan^2 x}} dx$

 [Watch Video Solution](#)

724. Evaluate: $\int \frac{e^x}{\sqrt{16 - e^{2x}}}$

 [Watch Video Solution](#)

725. Evaluate: $\int \frac{\cos x}{\sqrt{4 + \sin^2 x}} dx$

 [Watch Video Solution](#)

726. Evaluate: $\int \frac{\sin x}{\sqrt{4\cos^2 x - 1}} dx$

 [Watch Video Solution](#)

727. Evaluate: $\int \frac{x}{\sqrt{4-x^4}} dx$

 [Watch Video Solution](#)

728. Evaluate: $\int \frac{1}{x \sqrt{4-9(\log x)^2}} dx$

 [Watch Video Solution](#)

729. Evaluate: $\int \frac{\sin 8x}{\sqrt{9+\sin^4 4x}} dx$

 [Watch Video Solution](#)

730. Evaluate: $\int \frac{\cos 2x}{\sqrt{\sin^2 2x + 8}} dx$



Watch Video Solution

731. Evaluate: $\int \frac{\sin 2x}{\sqrt{\sin^4 x + 4\sin^2 x - 2}} dx$



Watch Video Solution

732. Evaluate: $\int \frac{\sin 2x}{\sqrt{\cos^4 x - \sin^2 x + 2}} dx$



Watch Video Solution

733. Evaluate: $\int \frac{\cos x}{\sqrt{4 - \sin^2 x}} dx$

 [Watch Video Solution](#)

734. Evaluate: $\int \frac{1}{x^{2/3} \sqrt{x^{2/3} - 4}} dx$

 [Watch Video Solution](#)

735. Evaluate: $\int \frac{1}{\sqrt{(1 - x^2) \{9 + (\sin^{-1} x)^2\}}} dx$

 [Watch Video Solution](#)

736. Evaluate: $\int \frac{\cos x}{\sqrt{\sin^2 x - 2\sin x - 3}} dx$

 [Watch Video Solution](#)

737. Evaluate: $\int \sqrt{\operatorname{cosec} x - 1} dx$

 [Watch Video Solution](#)

738. Evaluate: $\int \frac{\sin x - \cos x}{\sqrt{\sin 2x}} dx$

 [Watch Video Solution](#)

739. Evaluate: $\int \frac{\cos x - \sin x}{\sqrt{8 - \sin 2x}} dx$



Watch Video Solution

740. Evaluate: $\int \frac{x}{x^2 + x + 1} dx$



Watch Video Solution

741. Evaluate: $\int \frac{4x + 1}{x^2 + 3x + 2} dx$



Watch Video Solution

742. Evaluate: $\int \frac{2x - 3}{x^2 + 3x - 18} dx$

 [Watch Video Solution](#)

743. Evaluate: $\int \frac{2\sin 2\varphi - \cos \varphi}{6 - \cos^2 \varphi - 4 \sin \varphi} d\varphi$

 [Watch Video Solution](#)

744. Evaluate: $\int \frac{x^3 + x}{x^4 - 9} dx$

 [Watch Video Solution](#)

745. Evaluate: $\int \frac{1}{2e^{2x} + 3e^x + 1} dx$

 [Watch Video Solution](#)

746. Evaluate: $\int \frac{x^3}{x^4 + 3x^2 + 2} dx$

 [Watch Video Solution](#)

747. Evaluate: $\int \frac{x}{x^2 + 3x + 2} dx$

 [Watch Video Solution](#)

748. Evaluate: $\int \frac{x + 1}{x^2 + x + 3} dx$

 [Watch Video Solution](#)

749. Evaluate: $\int \frac{x - 3}{x^2 + 2x - 4} dx$

 [Watch Video Solution](#)

750. Evaluate: $\int \frac{2x - 3}{x^2 + 6x + 13} dx$

 [Watch Video Solution](#)

751. Evaluate: $\int \frac{x - 1}{3x^2 - 4x + 3} dx$

 [Watch Video Solution](#)

752. Evaluate: $\int \frac{2x}{2 + x - x^2} dx$

 [Watch Video Solution](#)

753. Evaluate: $\int \frac{1 - 3x}{3x^2 + 4x + 2} dx$

 [Watch Video Solution](#)

754. Evaluate: $\int \frac{2x + 5}{x^2 - x - 2} dx$

 [Watch Video Solution](#)

755. Evaluate: $\int \frac{ax^3 + bx}{x^4 + c^2} dx$

 [Watch Video Solution](#)

756. Evaluate: $\int \frac{(3\sin x - 2)\cos x}{5 - \cos^2 x - 4\sin x} dx$

 [Watch Video Solution](#)

757. $\int \frac{x + 2}{2x^2 + 6x + 5} \cdot dx$

 [Watch Video Solution](#)

758. Evaluate: $\int \frac{5x - 2}{1 + 2x + 3x^2} dx$

 [Watch Video Solution](#)

759. Evaluate $\int \frac{x^3}{x^4 + 3x^2 + 2} dx$

 [Watch Video Solution](#)

760. Evaluate: $\int \frac{x^3 - 3x}{x^4 + 2x^2 - 4} dx$

 [Watch Video Solution](#)

761. Evaluate: $\int \frac{x^3 + x + 1}{x^2 - 1}$

 [Watch Video Solution](#)

762. Evaluate: $\int \frac{x^2 + 5x + 3}{x^2 + 3x + 2} dx$

 [Watch Video Solution](#)

763. Evaluate: $\int \frac{x^2 + x + 1}{x^2 - x} dx$



[Watch Video Solution](#)

764. Evaluate: $\int \frac{x^2 + x - 1}{x^2 + x - 6} dx$



[Watch Video Solution](#)

765. Evaluate: $\int \frac{1 - x^2}{x(1 - 2x)} dx$



[Watch Video Solution](#)

766. Evaluate: $\int \frac{x^2 + 1}{x^2 - 5x + 6} dx$

 [Watch Video Solution](#)

767. Evaluate: $\int \frac{x^2}{x^2 + 7x + 10} dx$

 [Watch Video Solution](#)

768. Evaluate: $\int \frac{x^2 + x + 1}{x^2 - x + 1} dx$

 [Watch Video Solution](#)

769. Evaluate: $\int \frac{(x - 1)^2}{x^2 + 2x + 2} dx$

 [Watch Video Solution](#)

770. Evaluate: $\int \frac{x^3 + x^2 + 2x + 1}{x^2 - x + 1} dx$

 [Watch Video Solution](#)

771. Evaluate: $\int \frac{x^2(x^4 + 4)}{x^2 + 4} dx$

 [Watch Video Solution](#)

$$772. \int \frac{x^2}{x^2 + 6x + 12} dx$$

 [Watch Video Solution](#)

$$773. \text{ Evaluate: } \int \frac{2x + 3}{\sqrt{x^2 + 4x + 1}} dx$$

 [Watch Video Solution](#)

$$774. \text{ Evaluate: } \int \frac{2x^3 + 5x^2 + 4}{\sqrt{x}} dx$$

 [Watch Video Solution](#)

775. Evaluate: $\int \sqrt{\frac{1+x}{x}} dx$

 [Watch Video Solution](#)

776. Evaluate: $\int \sqrt{\frac{a-x}{a+x}} dx$

 [Watch Video Solution](#)

777. Evaluate: $\int x \sqrt{\frac{a^2 - x^2}{a^2 + x^2}} dx$

 [Watch Video Solution](#)

778. Evaluate: $\int \frac{x}{\sqrt{x^2 + 6x + 10}} dx$

 [Watch Video Solution](#)

779. Evaluate: $\int \frac{2x + 1}{\sqrt{x^2 + 2x - 1}} dx$

 [Watch Video Solution](#)

780. Evaluate: $\int \frac{x + 1}{\sqrt{4 + 5x - x^2}} dx$

 [Watch Video Solution](#)

$$781. \int \frac{6x - 5}{\sqrt{3x^2 - 5x + 1}} dx$$



[Watch Video Solution](#)

$$782. \text{ Evaluate: } \int \frac{3x + 1}{\sqrt{5 - 2x - x^2}} dx$$



[Watch Video Solution](#)

$$783. \text{ Evaluate: } \int \frac{x}{\sqrt{8 + x - x^2}} dx$$



[Watch Video Solution](#)

784. Evaluate: $\int \frac{x + 2}{\sqrt{x^2 + 2x - 1}} dx$

 [Watch Video Solution](#)

785. Evaluate: $\int \frac{x + 2}{\sqrt{x^2 - 1}} dx$

 [Watch Video Solution](#)

786. Evaluate: $\int \frac{x - 1}{\sqrt{x^2 + 1}} dx$

 [Watch Video Solution](#)

787. Evaluate: $\int \frac{x}{\sqrt{x^2 + x + 1}} dx$



Watch Video Solution

788. Evaluate: $\int \frac{x + 1}{\sqrt{x^2 + 1}} dx$



Watch Video Solution

789. Evaluate: $\int \frac{2x + 5}{\sqrt{x^2 - 2x + 10}} dx$



Watch Video Solution

790. Evaluate: $\int \frac{3x + 1}{\sqrt{5 - 2x - x^2}} dx$

 [Watch Video Solution](#)

791. Evaluate: $\int \sqrt{\frac{1-x}{1+x}} dx$

 [Watch Video Solution](#)

792. Evaluate: $\int \frac{2x + 1}{\sqrt{x^2 + 4x + 3}} dx$

 [Watch Video Solution](#)

793. Evaluate: $\int \frac{2x + 3}{\sqrt{x^2 + 4x + 5}} dx$



Watch Video Solution

794. Evaluate: $\int \frac{5x + 3}{\sqrt{x^2 + 4x + 10}} dx$



Watch Video Solution

795. Evaluate: $\int \frac{x + 2}{\sqrt{x^2 + 2x + 3}} dx$



Watch Video Solution

796. Evaluate: $\int \frac{1}{a^2 \sin^2 x + b^2 \cos^2 x} dx$

 [Watch Video Solution](#)

797. Evaluate: $\int \frac{1}{1 + 3\sin^2 x + 8\cos^2 x} dx$

 [Watch Video Solution](#)

798. Evaluate: $\int \frac{\sin x}{\sin 3x} dx$

 [Watch Video Solution](#)

799. Evaluate: $\int \frac{1}{(2\sin x + 3\cos x)^2} dx$

 [Watch Video Solution](#)

800. Evaluate: $\int \frac{1}{3 + \sin 2x} dx$

 [Watch Video Solution](#)

801. Evaluate: $\int \frac{1}{2 - 3\cos 2x} dx$

 [Watch Video Solution](#)

802. Evaluate: $\int \frac{1}{4\cos^2 x + 9\sin^2 x} dx$

 [Watch Video Solution](#)

803. Evaluate: $\int \frac{1}{4\sin^2 x + 5\cos^2 x} dx$

 [Watch Video Solution](#)

804. Evaluate: $\int \frac{2}{2 + \sin 2x} dx$

 [Watch Video Solution](#)

805. Evaluate: $\int \frac{\cos x}{\cos 3x} dx$

 [Watch Video Solution](#)

806. Evaluate: $\int \frac{1}{1 + 3\sin^2 x} dx$

 [Watch Video Solution](#)

807. Evaluate: $\int \frac{1}{3 + 2\cos^2 x} dx$

 [Watch Video Solution](#)

$$808. \int \frac{dx}{(\sin x - 2\cos x)(2\sin x + \cos x)}$$

 [Watch Video Solution](#)

$$809. \int (\sin 2x) \frac{dx}{1 + \sin^4 x}$$

 [Watch Video Solution](#)

$$810. \text{ Evaluate: } \int \frac{1}{\cos x (\sin x + 2\cos x)} dx$$

 [Watch Video Solution](#)

811. Evaluate: $\int \frac{1}{\sin^2 x + \sin 2x} dx$

 [Watch Video Solution](#)

812. Evaluate: $\int \frac{1}{\cos 2x + 3\sin^2 x} dx$

 [Watch Video Solution](#)

813. Evaluate: $\int \frac{1}{1 + \sin x + \cos x} dx$

 [Watch Video Solution](#)

814. Evaluate: $\int \frac{1}{2 + \cos x} dx$

 [Watch Video Solution](#)

815. $\int \frac{1 + \sin x}{\sin x(1 + \cos x)} dx$

 [Watch Video Solution](#)

816. Evaluate: $\int \frac{1}{1 - 2\sin x} dx$

 [Watch Video Solution](#)

817. Evaluate: $\int \frac{1}{5 + 4\cos x} dx$

 [Watch Video Solution](#)

818. Evaluate: $\int \frac{1}{5 - 4\sin x} dx$

 [Watch Video Solution](#)

819. Evaluate: $\int \frac{1}{1 - 2\sin x} dx$

 [Watch Video Solution](#)

820. Evaluate: $\int \frac{1}{4\cos x - 1} dx$

 [Watch Video Solution](#)

821. Evaluate: $\int \frac{1}{1 - \sin x + \cos x} dx$

 [Watch Video Solution](#)

822. Evaluate: $\int \frac{1}{3 + 2\sin x + \cos x} dx$

 [Watch Video Solution](#)

823. Evaluate: $\int \frac{1}{13 + 3\cos x + 4\sin x} dx$

 [Watch Video Solution](#)

824. Evaluate: $\int \frac{1}{\cos x - \sin x} dx$

 [Watch Video Solution](#)

825. Evaluate: $\int \frac{1}{\sin x + \cos x} dx$

 [Watch Video Solution](#)

826. Evaluate: $\int \frac{1}{5 - 4\cos x} dx$

 [Watch Video Solution](#)

827. Evaluate: $\int \frac{1}{2 + \sin x + \cos x} dx$

 [Watch Video Solution](#)

828. Evaluate: $\int \frac{1}{\sin x + \sqrt{3}\cos x} dx$

 [Watch Video Solution](#)

829. Evaluate: $\int \frac{1}{\sqrt{3}\sin x + \cos x} dx$

 [Watch Video Solution](#)

830. Evaluate: $\int \frac{1}{\sin x - \sqrt{3}\cos x} dx$

 [Watch Video Solution](#)

831. Evaluate: $\int \frac{1}{5 + 7\cos x + \sin x} dx$

 [Watch Video Solution](#)

832. Evaluate: $\int \frac{1}{\sqrt{3}\sin x + \cos x} dx$



Watch Video Solution

833. Evaluate: $\int \frac{1}{\sin x + \sqrt{3}\cos x} dx$



Watch Video Solution

834. Evaluate: $\int \frac{2\sin x + 3\cos x}{3\sin x + 4\cos x} dx$



Watch Video Solution

835. $\int \frac{1}{1 + \tan x} dx$

 [Watch Video Solution](#)

836. Evaluate: $\int \frac{1}{1 + \cot x} dx$

 [Watch Video Solution](#)

837. Evaluate: $\int \frac{5\sin x + 6}{\sin x + 2\cos x + 3} dx$

 [Watch Video Solution](#)

838. Evaluate: $\int \frac{1}{1 - \cot x} dx$



Watch Video Solution

839. Evaluate: $\int \frac{1}{1 - \tan x} dx$



Watch Video Solution

840. Evaluate: $\int \frac{3 + 2\cos x + 4\sin x}{2\sin x + \cos x + 3} dx$



Watch Video Solution

841. Evaluate: $\int \frac{1}{p + q \tan x} dx$

 [Watch Video Solution](#)

842. Evaluate: $\int \frac{5 \cos x + 6}{2 \cos x + \sin x + 3} dx$

 [Watch Video Solution](#)

843. Evaluate: $\int \frac{2 \sin x + 3 \cos x}{3 \sin x + 4 \cos x} dx$

 [Watch Video Solution](#)

844. Evaluate: $\int \frac{1}{4 + 3 \cot x} dx$

 [Watch Video Solution](#)

845. Evaluate: $\int \frac{2 \tan x + 3}{3 \tan x + 4} dx$

 [Watch Video Solution](#)

846. Evaluate: $\int \frac{1}{4 + 3 \tan x} dx$

 [Watch Video Solution](#)

847. Evaluate: $\int \frac{8\cot x + 1}{3\cot x + 2} dx$

 [Watch Video Solution](#)

848. Evaluate: $\int \frac{4\sin x + 5\cos x}{5\sin x + 4\cos x} dx$

 [Watch Video Solution](#)

849. Evaluate: (i) $\int x\sin 3x dx$ (ii) $\int x\sec^2 x dx$

 [Watch Video Solution](#)

850. Evaluate: $\int x \log x \, dx$



[Watch Video Solution](#)

851. Evaluate: $\int x \sin^2 x \, dx$



[Watch Video Solution](#)

852. Evaluate: $\int x^2 \sin x \, dx$



[Watch Video Solution](#)

853. Evaluate: $\int x^2 e^2 dx$



[Watch Video Solution](#)

854. Evaluate: $\int \log x dx$



[Watch Video Solution](#)

855. Evaluate: $\int (\log x)^2 dx$



[Watch Video Solution](#)

856. Evaluate: $\int \sin^{-1}x \, dx$



[Watch Video Solution](#)

857. Evaluate: $\int \tan^{-1}x \, dx$



[Watch Video Solution](#)

858. Evaluate: $\int \sec^{-1}x \, dx$



[Watch Video Solution](#)

859. Evaluate: (i) $\int x \tan^{-1} x \, dx$



Watch Video Solution

860. Evaluate: $\int \frac{\log x}{x^2} \, dx$



Watch Video Solution

861. $\int \frac{x - \sin x}{1 - \cos x} \, dx$



Watch Video Solution

862. Evaluate: $\int \log(1 + x^2) dx$



Watch Video Solution

863. Evaluate: $\int \sec^3 x dx$



Watch Video Solution

864. Evaluate: $\int \sin\sqrt{x} dx$



Watch Video Solution

865. Evaluate: $\int \frac{\sin^{-1}x}{(1-x^2)^{3/2}} dx$



Watch Video Solution

866. Evaluate: $\int (\sin^{-1}x)^2 dx$



Watch Video Solution

867. Evaluate: $\int x \log(1+x) dx$



Watch Video Solution

868. Evaluate: $\int x \cot^{-1} x \, dx$



Watch Video Solution

869. Evaluate: $\int x \sin^{-1} x \, dx$



Watch Video Solution

870. Evaluate: $\int x^2 \tan^{-1} x \, dx$



Watch Video Solution

871. Evaluate: $\int x^3 \log 2x \, dx$



Watch Video Solution

872. Evaluate: $\int x^3 e^x \, dx$



Watch Video Solution

873. Evaluate: $\int \sin 2x \tan^{-1}(\sin x) \, dx$



Watch Video Solution

874. Evaluate: $\int_0^1 \cot^{-1}(1 - x + x^2) dx$

 [Watch Video Solution](#)

875. Evaluate: $\int \left(3x^2 \tan \frac{1}{x} - x \sec^2 \frac{1}{x} \right) dx$

 [Watch Video Solution](#)

876. Evaluate: $\int \frac{\log(1 + x^2)}{x^3} dx$

 [Watch Video Solution](#)

877. Evaluate: $\int \frac{\sin^{-1}\sqrt{x} - \cos^{-1}\sqrt{x}}{\sin^{-1}\sqrt{x} + \cos^{-1}\sqrt{x}} dx$



Watch Video Solution

878. Evaluate $\int \sqrt{x^2 + 1} \frac{\log(x^2 + 1) - 2\log x}{x^4} dx$



Watch Video Solution

879. Evaluate: $\int \frac{x^2}{(x\sin x + \cos x)^2} dx$



Watch Video Solution

880. Find an anti-derivative of the function

$$f(x)g''(x) - f'(x)g(x)$$

 [Watch Video Solution](#)

881. Evaluate: $\int \sin^{-1} \left(\frac{2x + 2}{\sqrt{4x^2 + 8x + 13}} \right) dx$

 [Watch Video Solution](#)

882. Evaluate: $\int x \cos x \, dx$

 [Watch Video Solution](#)

883. Evaluate: $\int \log(x + 1) dx$



Watch Video Solution

884. Evaluate: $\int x^3 \log x dx$



Watch Video Solution

885. Evaluate: $\int xe^x dx$



Watch Video Solution

886. Evaluate: $\int x e^{2x} dx$



Watch Video Solution

887. Evaluate: $\int x^2 e^{-x} dx$



Watch Video Solution

888. Evaluate: $\int x^2 \cos x dx$



Watch Video Solution

889. Evaluate: $\int x^2 \cos 2x \, dx$



Watch Video Solution

890. Evaluate: $\int x \sin 2x \, dx$



Watch Video Solution

891. Evaluate: $\int \left(\frac{\log(\log x)}{x} \right) dx$



Watch Video Solution

892. Evaluate: $\int x^2 \cos x \, dx$



Watch Video Solution

893. Evaluate: $\int x \operatorname{cosec}^2 x \, dx$



Watch Video Solution

894. Evaluate: $\int x \cos^2 x \, dx$



Watch Video Solution

895. Evaluate: $\int x^n \log x \, dx$



Watch Video Solution

896. Evaluate: $\int \frac{\log x}{x^n} \, dx$



Watch Video Solution

897. Evaluate: $\int x^2 \sin^2 x \, dx$



Watch Video Solution

898. $\int 2x^3 e^{x^2} dx$



[Watch Video Solution](#)

899. Evaluate: $\int x^3 \cos x^2 dx$



[Watch Video Solution](#)

900. Evaluate: $\int x \sin x \cos x dx$



[Watch Video Solution](#)

901. Evaluate: $\int \sin x \log(\cos x) dx$



Watch Video Solution

902. Evaluate: $\int (\log x)^2 x dx$



Watch Video Solution

903. Evaluate: $\int e^{\sqrt{x}} dx$



Watch Video Solution

904. Evaluate: $\int \frac{\log(x + 2)}{(x + 2)^2} dx$

 [Watch Video Solution](#)

905. Evaluate: $\int \frac{x + \sin x}{1 + \cos x} dx$

 [Watch Video Solution](#)

906. Evaluate: $\int (\log)_{10} x dx$

 [Watch Video Solution](#)

907. Evaluate: $\int \cos\sqrt{x} \, dx$



Watch Video Solution

908. Evaluate: $\int \frac{x \cos^{-1} x}{\sqrt{1-x^2}} \, dx$



Watch Video Solution

909. Evaluate: $\int \frac{\log x}{(x+1)^2} \, dx$



Watch Video Solution

910. Evaluate: $\int \operatorname{cosec}^3 x \, dx$



Watch Video Solution

911. Evaluate: $\int \sec^{-1} \sqrt{x} \, dx$



Watch Video Solution

912. Evaluate: $\int \sin^{-1} \sqrt{\frac{x}{a+x}} \, dx$



Watch Video Solution

913. Evaluate: $\int x \tan^2 x \, dx$



Watch Video Solution

914. Evaluate: $\int x \left(\frac{\sec 2x - 1}{\sec 2x + 1} \right) dx$



Watch Video Solution

915. Evaluate: $\int (x + 1)e^x \log(xe^x) \, dx$



Watch Video Solution

916. Evaluate: $\int \sin^{-1}(3x - 4x^3) dx$



Watch Video Solution

917. Evaluate: $\int \sin^{-1}\left(\frac{2x}{1+x^2}\right) dx$



Watch Video Solution

918. Evaluate: $\int \tan^{-1}\left(\frac{3x - x^3}{1 - 3x^2}\right) dx$



Watch Video Solution

919. Evaluate: $\int x^2 \sin^{-1} x \, dx$



Watch Video Solution

920. Evaluate: $\int (\sin^{-1} x)^2 \, dx$



Watch Video Solution

921. Evaluate: $\int \frac{x^2 \tan^{-1} x^3}{1 + x^6} \, dx$



Watch Video Solution

922. integrate $\int \cos^{-1}(4x^3 - 3x) dx$



Watch Video Solution

923. Evaluate: $\int \cos^{-1}\left(\frac{1-x^2}{1+x^2}\right) dx$



Watch Video Solution

924. Evaluate: $\int \tan^{-1}\left(\frac{2x}{1-x^2}\right) dx$



Watch Video Solution

925. Evaluate: $\int (x + 1)\log x \, dx$



[Watch Video Solution](#)

926. Evaluate: $\int x^2 \tan^{-1} x \, dx$



[Watch Video Solution](#)

927. Evaluate: $\int (e^{\log x} + \sin x) \cos x \, dx$



[Watch Video Solution](#)

928. Evaluate: $\int \frac{x \tan^{-1} x}{(1+x^2)^{3/2}} dx$

 [Watch Video Solution](#)

929. Evaluate: $\int \tan^{-1}(\sqrt{x}) dx$

 [Watch Video Solution](#)

930. Evaluate: $\int x^3 \tan^{-1} x dx$

 [Watch Video Solution](#)

931. Evaluate: $\int x \sin x \cos^2 x \, dx$



Watch Video Solution

932. Evaluate: $\int x \tan^{-1} x \, dx$



Watch Video Solution

933. Evaluate: $\int \frac{x \sin^{-1} x}{\sqrt{1-x^2}} \, dx$



Watch Video Solution

934. Evaluate $\int \sin^3 \sqrt{x} dx$



Watch Video Solution

935. Evaluate: $\int x \sin^3 x dx$



Watch Video Solution

936. Evaluate: $\int \cos^3 \sqrt{x} dx$



Watch Video Solution

937. Evaluate: $\int x \cos^3 x \, dx$



Watch Video Solution

938. Evaluate: $\int \tan^{-1} \sqrt{\frac{1-x}{1+x}} \, dx$



Watch Video Solution

939. Evaluate $\int \sin^{-1} \sqrt{\frac{x}{a+x}} \, dx$



Watch Video Solution

940. Evaluate: $\int \frac{x^3 \sin^{-1} x^2}{\sqrt{1-x^4}} dx$

 [Watch Video Solution](#)

941. Evaluate: $\int \frac{x^2 \sin^{-1} x}{(1-x^2)^{3/2}} dx$

 [Watch Video Solution](#)

942. Evaluate: (i) $\int e^x \left(\frac{1}{x} - \frac{1}{x^2} \right) dx$

 [Watch Video Solution](#)

943. Evaluate $\int [\sin(\log x) + \cos(\log x)] dx$



Watch Video Solution

944. Evaluate: $\int e^x (\tan x + \operatorname{cosec} x) dx$



Watch Video Solution

945. Evaluate: $\int e^x \left(\frac{2 + \sin 2x}{1 + \cos 2x} \right) dx$



Watch Video Solution

946. Evaluate: $\int e^x \left(\frac{1 + \sin x \cos x}{\cos^2 x} \right) dx$

 [Watch Video Solution](#)

947. Evaluate: $\int e^x \left(\frac{1 + \sin x}{1 + \cos x} \right) dx$

 [Watch Video Solution](#)

948. Evaluate: $\int \frac{e^x}{(x + 1)^2} dx$

 [Watch Video Solution](#)

949. Evaluate: $\int e^x \frac{x-3}{(x-1)^3} dx$



Watch Video Solution

950. Evaluate: $\int \frac{\log x}{(1 + \log x)^2} dx$



Watch Video Solution

951. Evaluate: $\int \left\{ \frac{1}{\log x} - \frac{1}{(\log x)^2} \right\} dx$



Watch Video Solution

952. Find $\int \left[\log(\log x) + \frac{1}{(\log x)^2} \right] dx$

 [Watch Video Solution](#)

953. Evaluate: $\int e^x \frac{x^2 + 1}{(x + 1)^2} dx$

 [Watch Video Solution](#)

954. Evaluate: $\int e^x \frac{(1 - x)^2}{(1 + x^2)^2} dx$

 [Watch Video Solution](#)

955. Evaluate: $\int e^{2x} \left(\frac{1 - \sin 2x}{1 - \cos 2x} \right) dx$



[Watch Video Solution](#)

956. Evaluate: $\int e^x (\cos x - \sin x) dx$



[Watch Video Solution](#)

957. Evaluate: $\int e^x \left(\frac{1}{x^2} - \frac{2}{x^3} \right) dx$



[Watch Video Solution](#)

958. Evaluate: $\int e^x \left(\frac{1 + \sin x}{1 + \cos x} \right) dx$



Watch Video Solution

959. Evaluate: $\int e^x (\cot x - \operatorname{cosec}^2 x) dx$



Watch Video Solution

960. Evaluate: $\int e^x \left(\frac{x - 1}{2x^2} \right) dx$



Watch Video Solution

961. Evaluate: $\int e^x \sec x (1 + \tan x) dx$



Watch Video Solution

962. Evaluate: $\int e^x (\tan x - \log \cos x) dx$



Watch Video Solution

963. Evaluate: $\int e^x [(\sec x + \log(\sec x + \tan x))] dx$



Watch Video Solution

964. Evaluate: $\int e^x(\cot x + \log \sin x) dx$



Watch Video Solution

965. Evaluate: $\int e^x \frac{x-1}{(x+1)^3} dx$



Watch Video Solution

966. Evaluate: $\int e^x \left(\frac{\sin 4x - 4}{1 - \cos 4x} \right) dx$



Watch Video Solution

967. Evaluate: $\int \frac{2-x}{(1-x)^2} e^x dx$

 [Watch Video Solution](#)

968. Evaluate: $\int e^x \frac{1+x}{(2+x)^2} dx$

 [Watch Video Solution](#)

969. Evaluate: $\int \frac{\sqrt{1-\sin x}}{1+\cos x} e^{-x/2} dx$

 [Watch Video Solution](#)

970. Evaluate: $\int e^x \left(\log x + \frac{1}{x} \right) dx$

 [Watch Video Solution](#)

971. Evaluate: $\int e^x \left(\log x + \frac{1}{x^2} \right) dx$

 [Watch Video Solution](#)

972. Evaluate: $\int \frac{e^x}{x} \left\{ x (\log x)^2 + 2 \log x \right\} dx$

 [Watch Video Solution](#)

973. Evaluate: $\int e^x \frac{\sqrt{1-x^2} \sin^{-1} x + 1}{\sqrt{1-x^2}} dx$

 [Watch Video Solution](#)

974. Evaluate: $\int e^{2x} (-\sin x + 2\cos x) dx$

 [Watch Video Solution](#)

975. Evaluate: $\int e^x \left(\tan^{-1} x + \frac{1}{1+x^2} \right) dx$

 [Watch Video Solution](#)

976. Evaluate the following integrals:

$$\int e^x \left(\frac{\sin x \cos x - 1}{\sin^2 x} \right) dx$$



Watch Video Solution

977. Evaluate: $\int \left\{ \tan(\log x) + \sec^2(\log x) \right\} dx$



Watch Video Solution

978. Evaluate: $\int e^x \frac{(x-4)}{(x-2)^3} dx$



Watch Video Solution

979. Evaluate: $\int e^{2x} \left(\frac{1 - \sin 2x}{1 - \cos 2x} \right) dx$

 [Watch Video Solution](#)

980. Evaluate: $\int e^{2x} \sin 3x dx$

 [Watch Video Solution](#)

981. Evaluate: $\int e^x \cos x dx$

 [Watch Video Solution](#)

982. Evaluate: $\int e^{ax} \cos(bx + c) dx$



Watch Video Solution

983. Evaluate: $\int \sin(\log x) dx$



Watch Video Solution

984. Evaluate: $\int e^x \cos^2 x dx$



Watch Video Solution

985. Evaluate: $\int \sqrt{x^2 - 9} \, dx$



Watch Video Solution

986. Evaluate: $\int \tan^{-1} x \, dx$.



Watch Video Solution

987. Evaluate: $\int e^{ax} \cos bx \, dx$



Watch Video Solution

988. Evaluate: $\int e^{ax} \sin(bx + c) dx$



Watch Video Solution

989. Evaluate: $\int \cos(\log x) dx$



Watch Video Solution

990. Evaluate: $\int e^{2x} \cos(3x + 4) dx$



Watch Video Solution

991. Evaluate: $\int e^{2x} \sin x \cos x \, dx$



Watch Video Solution

992. Evaluate: $\int e^{2x} \sin x \, dx$



Watch Video Solution

993. Evaluate: $\int e^{2x} \sin(3x + 1) \, dx$



Watch Video Solution

994. Evaluate: $\int e^x \sin^2 x \, dx$



Watch Video Solution

995. Evaluate: $\int \frac{1}{x^3} \sin(\log x) \, dx$



Watch Video Solution

996. Evaluate: $\int e^{2x} \cos^2 x \, dx$



Watch Video Solution

997. Evaluate: $\int e^{2x} \sin x \, dx$



Watch Video Solution

998. Evaluate: $\int x^2 e^{x^3} \cos x^3 \, dx$



Watch Video Solution

999. Evaluate: $\int \sqrt{4x^2 + 9} \, dx$



Watch Video Solution

1000. Evaluate: $\int \frac{x}{\sqrt{7x - 10 - x^2}} dx$

 [Watch Video Solution](#)

1001. Evaluate: $\int \sqrt{(x - 3)(5 - x)} dx$

 [Watch Video Solution](#)

1002. Evaluate: $\int \sqrt{\frac{1 + x}{1 - x}} dx$

 [Watch Video Solution](#)

1003. Evaluate: $\int \sqrt{3 - 2x - x^2} dx$



[Watch Video Solution](#)

1004. Evaluate: $\int \sqrt{3 - 2x - x^2} dx$



[Watch Video Solution](#)

1005. Evaluate: $\int \sqrt{x^2 + x + 1} dx$



[Watch Video Solution](#)

1006. Evaluate: $\int \sqrt{4 - x^2} dx$



Watch Video Solution

1007. Evaluate: $\int \sqrt{1 + x - 2x^2} dx$



Watch Video Solution

1008. Evaluate: $\int \frac{\cos x}{\sqrt{4 - \sin^2 x}} dx$



Watch Video Solution

1009. Evaluate: $\int \sqrt{e^{2x} - 1} dx$



[Watch Video Solution](#)

1010. Evaluate: $\int \sqrt{9 - x^2} dx$



[Watch Video Solution](#)

1011. Evaluate: $\int \sqrt{16x^2 + 25} dx$



[Watch Video Solution](#)

1012. Evaluate: $\int \sqrt{4x^2 - 5} \, dx$



[Watch Video Solution](#)

1013. Evaluate: $\int \sqrt{2x^2 + 3x + 4} \, dx$



[Watch Video Solution](#)

1014. Evaluate: $\int \sqrt{3 - 2x - 2x^2} \, dx$



[Watch Video Solution](#)

1015. Evaluate: $\int x \sqrt{x^4 + 1} dx$



Watch Video Solution

1016. Evaluate: $\int x^2 \sqrt{a^6 - x^6} dx$



Watch Video Solution

1017. Evaluate: $\int \frac{\sqrt{16 + (\log x)^2}}{x} dx$



Watch Video Solution

1018. Evaluate: $\int \sqrt{2ax - x^2} dx$



Watch Video Solution

1019. Evaluate: $\int \sqrt{3 - x^2} dx$



Watch Video Solution

1020. Evaluate: $\int (2x - 5) \sqrt{x^2 - 4x + 3} dx$



Watch Video Solution

1021. Evaluate: $\int (3x - 2) \sqrt{x^2 + x + 1} dx$



Watch Video Solution

1022. Evaluate: $\int (1 - x)\sqrt{x} dx$



Watch Video Solution

1023. Evaluate: $\int (x + 1) \sqrt{1 + x + x^2} dx$



Watch Video Solution

1024. Evaluate: $\int \frac{x}{(x^2 - 1)\sqrt{1 + x^2}} dx$

 [Watch Video Solution](#)

1025. Evaluate: $\int (x + 1) \sqrt{x^2 - x + 1} dx$

 [Watch Video Solution](#)

1026. Evaluate: $\int (x + 1) \sqrt{2x^2 + 3} dx$

 [Watch Video Solution](#)

1027. Evaluate: $\int (2x - 5)\sqrt{2 + 3x - x^2} dx$



Watch Video Solution

1028. Evaluate: $\int (x + 2)\sqrt{x^2 + x + 1} dx$



Watch Video Solution

1029. Evaluate: $\int (4x + 1)\sqrt{x^2 - x - 2} dx$



Watch Video Solution

1030. Evaluate: $\int (x - 2) \sqrt{2x^2 - 6x + 5} dx$

 [Watch Video Solution](#)

1031. Evaluate: $\int (x + 1) \sqrt{x^2 + x + 1} dx$

 [Watch Video Solution](#)

1032. Evaluate: $\int (2x + 3) \sqrt{x^2 + 4x + 3} dx$

 [Watch Video Solution](#)

1033. Evaluate: $\int (2x - 5) \sqrt{x^2 - 4x + 3} dx$

 [Watch Video Solution](#)

1034. Evaluate: $\int x \sqrt{x^2 + x} dx$

 [Watch Video Solution](#)

1035. Evaluate: $\int (x - 3) \sqrt{x^2 + 3x - 18} dx$

 [Watch Video Solution](#)

1036. Evaluate $\int (x + 3)\sqrt{3 - 4x - x^2} dx$



Watch Video Solution

1037. Evaluate: $\int (3x + 1)\sqrt{4 - 3x - 2x^2} dx$



Watch Video Solution

1038. Evaluate: $\int (2x + 5)\sqrt{10 - 4x - 3x^2} dx$



Watch Video Solution

1039. Resolve $\frac{3x + 2}{x^3 - 6x^2 + 11x - 6}$ into partial fractions.

 [Watch Video Solution](#)

1040. Resolve $\frac{x^3 - 6x^2 + 10x - 2}{x^2 - 5x + 6}$ into partial fractions.

 [Watch Video Solution](#)

1041. Resolve $\frac{3x - 2}{(x - 1)^2(x + 1)(x + 2)}$ into partial fractions.

 [Watch Video Solution](#)

1042. Resolve $\frac{2x - 1}{(x + 1)(x^2 + 2)}$ into partial fractions.

 [Watch Video Solution](#)

1043. How do you express $\frac{2x - 1}{(x - 1)^3(x - 2)}$ in partial fractions?

 [Watch Video Solution](#)

1044. Resolve $\frac{2x}{x^3 - 1}$ into partial fractions.

 [Watch Video Solution](#)

1045. Evaluate: $\int \frac{x - 1}{(x + 1)(x - 2)} dx$



Watch Video Solution

1046. Evaluate: $\int \frac{2x - 1}{(x - 1)(x + 2)(x - 3)} dx$



Watch Video Solution

1047. Evaluate: $\int \frac{x^3}{(x - 1)(x - 2)} dx$



Watch Video Solution

1048. Evaluate: $\int \frac{2x}{(x^2 + 1)(x^2 + 2)} dx$

 [Watch Video Solution](#)

1049. Evaluate: $\int \frac{\cos\theta}{(2 + \sin\theta)(3 + 4\sin\theta)} d\theta$

 [Watch Video Solution](#)

1050. Evaluate: $\int \frac{1}{\sin x - \sin 2x} dx$

 [Watch Video Solution](#)

1051. $\int \frac{1 - \cos x}{\cos x(1 + \cos x)} dx$



Watch Video Solution

1052. Evaluate: $\int \frac{(x - 1)(x - 2)(x - 3)}{(x - 4)(x - 5)(x - 6)} dx$



Watch Video Solution

1053. Evaluate: $\int \frac{3x + 1}{(x - 2)^2(x + 2)} dx$



Watch Video Solution

1054. Evaluate: $\int \frac{x^2 + 1}{(x - 1)^2(x + 3)} dx$



Watch Video Solution

1055. Evaluate: $\int \frac{x^2 + x + 1}{(x - 1)^3} dx$



Watch Video Solution

1056. Evaluate: $\int \frac{x^2}{(x - 1)^3(x + 1)} dx$



Watch Video Solution

1057. Evaluate: $\int \frac{8}{(x+2)(x^2+4)} dx$

 [Watch Video Solution](#)

1058. Evaluate: $\int \frac{x}{(x-1)(x^2+4)} dx$

 [Watch Video Solution](#)

1059. Evaluate: $\int \frac{x^2}{(x^2+1)(x^2+4)} dx$

 [Watch Video Solution](#)

1060. Evaluate $\int \frac{x^2 + 1}{(x^2 + 2)(2x^2 + 1)} dx$

 [Watch Video Solution](#)

1061. Evaluate: $\int \frac{x + 1}{x (1 + x e^x)^2} dx$

 [Watch Video Solution](#)

1062. Evaluate: $\int \frac{\sin x}{\sin 4x} dx$

 [Watch Video Solution](#)

1063. Evaluate: $\int \frac{2x + 1}{(x + 1)(x - 2)} dx$

 [Watch Video Solution](#)

1064. Evaluate: $\int \frac{1}{x(x - 2)(x - 4)} dx$

 [Watch Video Solution](#)

1065. Evaluate: $\int \frac{x^2 + x - 1}{x^2 + x - 6} dx$

 [Watch Video Solution](#)

1066. Evaluate: $\int \frac{3_{4x} - x^2}{(x + 2)(x - 1)} dx$



Watch Video Solution

1067. Evaluate: $\int \frac{x^2 + 1}{x^2 - 1} dx$



Watch Video Solution

1068. Evaluate: $\int \frac{x^2}{(x - 1)(x - 2)(x - 3)} dx$



Watch Video Solution

1069. Evaluate: $\int \frac{5x}{(x+1)(x^2-4)} dx$

 [Watch Video Solution](#)

1070. Evaluate: $\int \frac{x^2+1}{x(x^2-1)} dx$

 [Watch Video Solution](#)

1071. Evaluate: $\int \frac{2x-3}{(x-1)^2(2x+3)} dx$

 [Watch Video Solution](#)

1072. Evaluate: $\int \frac{x^3}{(x-1)(x-2)(x-3)} dx$



[Watch Video Solution](#)

1073. Evaluate: $\int \frac{\sin 2x}{(1 + \sin x)(2 + \sin x)} dx$



[Watch Video Solution](#)

1074. Evaluate: $\int \frac{2x}{(x^2 + 1)(x^2 + 3)} dx$



[Watch Video Solution](#)

1075. Evaluate: $\int \frac{1}{x \log x (2 + \log x)} dx$

 [Watch Video Solution](#)

1076. Evaluate: $\int \frac{x^2 + x + 1}{(x + 1)^2(x + 2)} dx$

 [Watch Video Solution](#)

1077. Evaluate: $\int \frac{ax^2 + bx + c}{(x - a)(x - b)(x - c)} dx$, where a, b, c are distinct.

 [Watch Video Solution](#)

1078. Evaluate: $\int \frac{x}{(x^2 + 1)(x - 1)} dx$



Watch Video Solution

1079. Evaluate: $\int \frac{1}{(x - 1)(x + 1)(x + 2)} dx$



Watch Video Solution

1080. Evaluate: $\int \frac{x^2}{(x^2 + 4)(x^2 + 9)} dx$



Watch Video Solution

1081. Evaluate: $\int \frac{5x^2 - 1}{x(x - 1)(x + 1)} dx$



Watch Video Solution

1082. Evaluate: $\int \frac{x^2 + 6x - 8}{x^3 - 4x} dx$



Watch Video Solution

1083. Evaluate: $\int \frac{x^2 + 1}{(2x + 1)(x^2 - 1)} dx$



Watch Video Solution

1084. Evaluate: $\int \frac{1}{x \{ 6 (\log x)^2 + 7 \log x + 2 \}} dx$

 [Watch Video Solution](#)

1085. Evaluate: $\int \frac{1}{x (x^n + 1)} dx$

 [Watch Video Solution](#)

1086. Evaluate: $\int \frac{x}{(x^2 - a^2)(x^2 - b^2)} dx$

 [Watch Video Solution](#)

1087. Evaluate: $\int \frac{x^2 + 1}{(x^2 + 4)(x^2 + 25)} dx$

 [Watch Video Solution](#)

1088. Evaluate: $\int \frac{x^3 + x + 1}{x^2 - 1} dx$

 [Watch Video Solution](#)

1089. Evaluate: $\int \frac{3x - 2}{(x + 1)^2(x + 3)} dx$

 [Watch Video Solution](#)

1090. Evaluate: $\int \frac{2x + 1}{(x + 2)(x - 3)^2} dx$

 [Watch Video Solution](#)

1091. Evaluate: $\int \frac{x^2 + 1}{(x - 2)^2(x + 3)} dx$

 [Watch Video Solution](#)

1092. Evaluate: $\int \frac{x}{(x - 1)^2(x + 2)} dx$

 [Watch Video Solution](#)

1093. Evaluate: $\int \frac{x^2}{(x-1)(x+1)^2} dx$

 [Watch Video Solution](#)

1094. Evaluate: $\int \frac{x^2 + x - 1}{(x+1)^2(x+2)} dx$

 [Watch Video Solution](#)

1095. Evaluate: $\int \frac{2x^2 + 7x - 3}{x^2(2x+1)} dx$

 [Watch Video Solution](#)

1096. Evaluate: $\int \frac{5x^2 + 20x + 6}{x^3 + 2x^2 + x} dx$

 [Watch Video Solution](#)

1097. Evaluate: $\int \frac{18}{(x + 2)(x^2 + 4)} dx$

 [Watch Video Solution](#)

1098. Evaluate: $\int \frac{5}{(x^2 + 1)(x + 2)} dx$

 [Watch Video Solution](#)

1099. Evaluate: $\int \frac{x}{(x+1)(x^2+1)} dx$



Watch Video Solution

1100. Evaluate: $\int \frac{dx}{1+x+x^2+x^3}$



Watch Video Solution

1101. Evaluate: $\int \frac{1}{(x+1)^2(x^2+1)} dx$



Watch Video Solution

1102. Evaluate: $\int \frac{2x}{x^3 - 1} dx$

 [Watch Video Solution](#)

1103. Evaluate: $\int \frac{1}{(x^2 + 1)(x^2 + 4)} dx$

 [Watch Video Solution](#)

1104. Evaluate: $\int \frac{x^2}{(x^2 + 1)(3x^2 + 4)} dx$

 [Watch Video Solution](#)

1105. $\int \frac{3x + 5}{x^3 - x^2 - x + 1} \cdot dx$



Watch Video Solution

1106. Evaluate: $\int \frac{x^3 - 1}{x^3 + x} dx$



Watch Video Solution

1107. Evaluate: $\int \frac{x^2 + x + 1}{(x + 1)^2(x + 2)} dx$



Watch Video Solution

1108. Evaluate: $\int \frac{1}{x(x^4 + 1)} dx$

 [Watch Video Solution](#)

1109. Evaluate: $\int \frac{1}{x(x^3 + 8)} dx$

 [Watch Video Solution](#)

1110. Evaluate: $\int \frac{3}{(1-x)(1+x^2)} dx$

 [Watch Video Solution](#)

1111. Evaluate: $\int \frac{\cos x dx}{(1 - \sin x)^3(2 + \sin x)}$

 [Watch Video Solution](#)

1112. Evaluate: $\int \frac{2x^2 + 1}{x^2(x^2 + 4)} dx$

 [Watch Video Solution](#)

1113. Evaluate: $\int \frac{\cos x}{(1 - \sin x)(2 - \sin x)} dx$

 [Watch Video Solution](#)

1114. Evaluate: $\int \frac{2x + 1}{(x - 2)(x - 3)} dx$

 [Watch Video Solution](#)

1115. Evaluate: $\int \frac{1}{(x^2 + 1)(x^2 + 2)} dx$

 [Watch Video Solution](#)

1116. Evaluate: $\int \frac{1}{x(x^4 - 1)} dx$

 [Watch Video Solution](#)

1117. Evaluate: (i) $\int \frac{1}{1 + \sqrt{x}} dx$ (ii) $\int e^{\cos x} \sin 2x dx$



Watch Video Solution

1118. Evaluate: $\int \frac{x^2}{(x^2 + a^2)(x^2 + b^2)} dx$



Watch Video Solution

1119. Evaluate: $\int \frac{1}{\cos x(5 - 4\sin x)} dx$



Watch Video Solution

1120. Evaluate: $\int \frac{1}{\sin x(3 + 2\cos x)} dx$

 [Watch Video Solution](#)

1121. Evaluate: $\int \frac{1}{\sin x + \sin 2x} dx$

 [Watch Video Solution](#)

1122. Evaluate: $\int \frac{x + 1}{x(1 + x e^x)} dx$

 [Watch Video Solution](#)

1123. Evaluate: $\int \frac{(x^2 + 1)(x^2 + 2)}{(x^2 + 3)(x^2 + 4)} dx$

 [Watch Video Solution](#)

1124. Evaluate: $\int \frac{4x^4 + 3}{(x^2 + 2)(x^2 + 3)(x^2 + 4)} dx$

 [Watch Video Solution](#)

1125. Evaluate: $\int \frac{x^4 dx}{(x - 1)(x^2 + 1)}$

 [Watch Video Solution](#)

1126. Evaluate: $\int \frac{x^2}{x^4 - x^2 - 12} dx$

 [Watch Video Solution](#)

1127. Evaluate: $\int \frac{x^2}{1 - x^4} dx$

 [Watch Video Solution](#)

1128. Evaluate: $\int \frac{x^2}{x^4 + x^2 - 2} dx$

 [Watch Video Solution](#)

1129. Evaluate: $\int \frac{(x^2 + 1)(x^2 + 4)}{(x^2 + 3)(x^2 - 5)} dx$

 [Watch Video Solution](#)

1130. Evaluate: $\int \frac{1 + x^2}{1 + x^4} dx$

 [Watch Video Solution](#)

1131. Evaluate: $\int \frac{x^2 - 1}{x^4 + x^2 + 1} dx$

 [Watch Video Solution](#)

1132. Evaluate: $\int \frac{x^2 + 4}{x^4 + 16} dx$



Watch Video Solution

1133. Evaluate: $\int \frac{1}{x^4 - 1} dx$



Watch Video Solution

1134. Evaluate: $\int \frac{x^2}{x^4 - 1} dx$



Watch Video Solution

1135. Evaluate: $\int \sqrt{\tan \theta} d\theta$



Watch Video Solution

1136. Evaluate: $\int \{ \sqrt{\tan x} + \sqrt{\cot x} \} dx$



Watch Video Solution

1137. Evaluate: $\int \frac{1}{\sin^4 x + \cos^4 x} dx$



Watch Video Solution

1138. Evaluate: $\int \frac{1}{\cos^6 x + \sin^6 x} dx$

 [Watch Video Solution](#)

1139. Evaluate: $\int \frac{x^4 + 1}{x^6 + 1} dx$

 [Watch Video Solution](#)

1140. Evaluate: $\int \frac{x^3}{x^{16} + 4} dx$

 [Watch Video Solution](#)

1141. Evaluate: $\int \frac{1}{x^2 \sqrt{4-x^2}} dx$

 [Watch Video Solution](#)

1142. Evaluate: $\int \frac{x^2 + 1}{x^4 - x^2 + 1} dx$

 [Watch Video Solution](#)

1143. Evaluate: $\int \sqrt{\cot \theta} d\theta$

 [Watch Video Solution](#)

1144. Evaluate: $\int \frac{x^2 + 9}{x^4 + 81} dx$

 [Watch Video Solution](#)

1145. Evaluate: $\int \frac{1}{x^4 + x^2 + 1} dx$

 [Watch Video Solution](#)

1146. Evaluate: $\int \frac{x^2 - 1}{x^4 + x^2 + 1} dx$

 [Watch Video Solution](#)

1147. Evaluate: $\int \frac{x^2 + 1}{x^4 + x^2 + 1} dx$

 [Watch Video Solution](#)

1148. Evaluate: $\int \frac{x^2 + 1}{x^4 + 1} dx$

 [Watch Video Solution](#)

1149. $\int \frac{(x^2 + 1)}{x^4 + 7x^2 + 1} dx$

 [Watch Video Solution](#)

1150. Evaluate: $\int \frac{(x - 1)^2}{x^4 + x^2 + 1} dx$

 [Watch Video Solution](#)

1151. Evaluate: $\int \frac{(x^2 - 1)}{(x^4 + 3x^2 + 1)\tan^{-1}\left(x + \frac{1}{x}\right)} dx$

 [Watch Video Solution](#)

1152. Evaluate: $\int \frac{1}{\sin^4 x + \sin^2 x \cos^2 x + \cos^4 x} dx$

 [Watch Video Solution](#)

1153. Evaluate: $\int \frac{1}{(x-3)\sqrt{x+1}} dx$



Watch Video Solution

1154. Evaluate: $\int \frac{x}{\sqrt{x+1}} dx$



Watch Video Solution

1155. Evaluate: $\int \frac{1}{(x^2-4)\sqrt{x+1}} dx$



Watch Video Solution

1156. Evaluate $\int (x + 2) \frac{dx}{(x^2 + 3x + 3)\sqrt{x + 1}}$

 [Watch Video Solution](#)

1157. Evaluate: $\int \frac{1}{(x - 1)\sqrt{x^2 - 1}} dx$

 [Watch Video Solution](#)

1158. Evaluate: $\int \frac{1}{(x - 1)\sqrt{x^2 + 4}} dx$

 [Watch Video Solution](#)

1159. Evaluate: $\int \frac{1}{x^2 \sqrt{1+x^2}} dx$



Watch Video Solution

1160. Evaluate: $\int \frac{\sqrt{1+x^2}}{1-x^2} dx$



Watch Video Solution

1161. Evaluate: $\int \frac{1}{x \sqrt{ax-x^2}} dx$



Watch Video Solution

1162. Evaluate: $\int \frac{1}{(x-1)\sqrt{x+2}} dx$



Watch Video Solution

1163. Evaluate: $\int \frac{1}{(x-1)\sqrt{2x+3}} dx$



Watch Video Solution

1164. Evaluate: $\int \frac{x+1}{(x-1)\sqrt{x+2}} dx$



Watch Video Solution

1165. Evaluate: $\int \frac{x^2}{(x-1)\sqrt{x+2}} dx$



Watch Video Solution

1166. Evaluate: $\int \frac{x}{(x-3)\sqrt{x+1}} dx$



Watch Video Solution

1167. Evaluate: $\int \frac{1}{(x+1)\sqrt{x}} dx$



Watch Video Solution

1168. Evaluate: $\int \frac{\sqrt{x^2 - a^2}}{x} dx$



Watch Video Solution

1169. Evaluate: $\int \frac{1}{(x-1)\sqrt{x^2+1}} dx$



Watch Video Solution

1170. Evaluate: $\int \frac{1}{x^3\sqrt{x^2-1}} dx$



Watch Video Solution

1171. Evaluate: $\int \frac{1}{(x^2 - 1)\sqrt{x^2 + 1}} dx$

 [Watch Video Solution](#)

1172. Evaluate: $\int \frac{x}{(x^2 + 4)\sqrt{x^2 + 1}} dx$

 [Watch Video Solution](#)

1173. Evaluate: $\int \frac{1}{(1 + x^2)\sqrt{1 - x^2}} dx$

 [Watch Video Solution](#)

1174. Evaluate: $\int \frac{1}{(2x^2 + 3)\sqrt{x^2 - 4}} dx$

 [Watch Video Solution](#)

1175. Evaluate: $\int \frac{x}{(x^2 + 4)\sqrt{x^2 + 9}} dx$

 [Watch Video Solution](#)

1176. Write a value of $\int \frac{1 + \cot x}{x + \log \sin x} dx$

 [Watch Video Solution](#)

1177. Write a value of $\int e^{3\log x} x^4 dx$



Watch Video Solution

1178. Write a value of $\int x^2 \sin x^3 dx$



Watch Video Solution

1179. Write a value of $\int \tan^3 x \sec^2 x dx$



Watch Video Solution

1180. $\int e^x (\sin x + \cos x) dx = ?$



Watch Video Solution

1181. Write a value of $\int \tan^6 x \sec^2 x \, dx$



Watch Video Solution

1182. Write a value of $\int \frac{\cos x}{3 + 2\sin x} \, dx$



Watch Video Solution

1183. Choose the correct answer $\int e^x \sec x (1 + \tan x) \, dx$

A. (A) $e^x \cos x + C$

B. (B) $e^x \sec x + C$

C. (C) $e^x \sin x + C$

D. (D) $e^x \tan x + C$

Answer: (B) $e^x \sec x + C$



Watch Video Solution

1184. Write a value of $\int \frac{\log x^n}{x} dx$



Watch Video Solution

1185. Write a value of $\int \frac{(\log x)^n}{x} dx$



Watch Video Solution

1186. Write a value of $\int e^{\log \sin x} \cos x \, dx$



Watch Video Solution

1187. Write a value of $\int \sin^3 x \cos x \, dx$



Watch Video Solution

1188. Write a value of $\int \cos^4 x \sin x \, dx$



Watch Video Solution

1189. Write a value of $\int \tan x \sec^3 x \, dx$



Watch Video Solution

1190. Write a value of $\int \frac{1}{1 + e^x} \, dx$



Watch Video Solution

1191. Write a value of $\int \frac{1}{1 + 2e^x} \, dx$



Watch Video Solution

1192. Write a value of $\int \frac{(\tan^{-1}x)^3}{1+x^2} dx$

 [Watch Video Solution](#)

1193. Write a value of $\int \frac{\sec^2x}{(5+\tan x)^4} dx$

 [Watch Video Solution](#)

1194. Write a value of $\int \frac{\sin x + \cos x}{\sqrt{1 + \sin 2x}} dx$

 [Watch Video Solution](#)

1195. Write a value of $\int (\log)_e x \, dx$



Watch Video Solution

1196. Write a value of $\int a^x e^x \, dx$



Watch Video Solution

1197. Write a value of $\int e^{2x^2 + \ln x} \, dx$



Watch Video Solution

1198. Write a value of $\int \left(e^{x(\log)_e a} + e^{a(\log)_e x} \right) dx$



[Watch Video Solution](#)

1199. Write a value of $\int \frac{\cos x}{\sin x \log \sin x} dx$



[Watch Video Solution](#)

1200. Write a value of $\int \frac{\sin 2x}{a^2 \sin^2 x + b^2 \cos^2 x} dx$



[Watch Video Solution](#)

1201. Write a value of $\int \frac{a^x}{3 + a^x} dx$



[Watch Video Solution](#)

1202. Write a value of $\int \frac{1 + \log x}{3 + x \log x} dx$



[Watch Video Solution](#)

1203. Write a value of $\int \frac{\sin x}{\cos^3 x} dx$



[Watch Video Solution](#)

1204. Write a value of $\int \frac{\sin x - \cos x}{\sqrt{1 + \sin 2x}} dx$



[Watch Video Solution](#)

1205. Write a value of $\int \frac{1}{x (\log x)^n} dx$



[Watch Video Solution](#)

1206. Write a value of $\int e^{ax} \sin bx dx$



[Watch Video Solution](#)

1207. Write a value of $\int e^{ax} \cos bx dx$



[Watch Video Solution](#)

1208. Write a value of $\int e^x \left(\frac{1}{x} - \frac{1}{x^2} \right) dx$

 [Watch Video Solution](#)

1209. Write a value of $\int e^{ax} \{ a f(x) + f'(x) \} dx$

 [Watch Video Solution](#)

1210. Write a value of $\int \sqrt{4 - x^2} dx$

 [Watch Video Solution](#)

1211. Write a value of $\int \sqrt{9 + x^2} dx$



Watch Video Solution

1212. Write a value of $\int \sqrt{x^2 - 9} dx$



Watch Video Solution

1213. Evaluate: $\int \frac{x^2}{1 + x^3} dx$



Watch Video Solution

1214. Evaluate: $\int \frac{x^2 + 4x}{x^3 + 6x^2 + 5} dx$

 [Watch Video Solution](#)

1215. Evaluate: $\int \frac{\sec^2 \sqrt{x}}{\sqrt{x}} dx$

 [Watch Video Solution](#)

1216. Evaluate: $\int \frac{\sin \sqrt{x}}{\sqrt{x}} dx$

 [Watch Video Solution](#)

1217. Evaluate: $\int \frac{\cos\sqrt{x}}{\sqrt{x}} dx$



Watch Video Solution

1218. Evaluate: $\int \frac{(1 + \log x)^2}{x} dx$



Watch Video Solution

1219. Evaluate: $\int \sec^2(7 - 4x) dx$



Watch Video Solution

1220. Evaluate: $\int \frac{\log x}{x} dx$



[Watch Video Solution](#)

1221. Evaluate: $\int 2^x dx$



[Watch Video Solution](#)

1222. Evaluate: $\int \frac{1 - \sin x}{\cos^2 x} dx$



[Watch Video Solution](#)

1223. Evaluate: $\int \frac{x^3 - 1}{x^2} dx$

 [Watch Video Solution](#)

1224. Evaluate: $\int \frac{x^3 - x^2 + x - 1}{x - 1} dx$

 [Watch Video Solution](#)

1225. Evaluate: $\int \frac{e^{\tan^{-1}x}}{1 + x^2} dx$

 [Watch Video Solution](#)

1226. Evaluate: $\int \frac{1}{\sqrt{1-x^2}} dx$

 [Watch Video Solution](#)

1227. Evaluate: $\int \sec x (\sec x + \tan x) dx$

 [Watch Video Solution](#)

1228. Evaluate: $\int \frac{1}{x^2 + 16} dx$

 [Watch Video Solution](#)

1229. Evaluate: $\int (1 - x) \sqrt{x} \, dx$

 [Watch Video Solution](#)

1230. Evaluate: $\int \frac{x + \cos 6x}{3x^2 + \sin 6x} \, dx$

 [Watch Video Solution](#)

1231. If $\int \left(\frac{x-1}{x^2} \right) e^x \, dx = f(x) e^x + C$, then write the value of $f(x)$.

 [Watch Video Solution](#)

1232. If $\int e^x (\tan x + 1) \sec x \, dx = e^x f(x) + C$, then write the value of $f(x)$.

 [Watch Video Solution](#)

1233. Evaluate: $\int \frac{2}{1 - \cos 2x} \, dx$

 [Watch Video Solution](#)

1234. Write the anti derivative of $\left(3\sqrt{x} + \frac{1}{\sqrt{x}} \right)$.

 [Watch Video Solution](#)

1235. Evaluate: $\int \cos^{-1}(\sin x) dx$



Watch Video Solution

1236. Evaluate: $\int \frac{1}{\sin^2 x \cos^2 x} dx$



Watch Video Solution

1237. $\int \frac{x}{4+x^4} dx$ is equal to $\frac{1}{4} \tan^{-1} x^2$ (b) $\frac{1}{4} \tan^{-1} \left(\frac{x^2}{2} \right)$

(c) $\frac{1}{2} \tan^{-1} \left(\frac{x^2}{2} \right)$ (d) none of these



Watch Video Solution

1238. $\int \frac{1}{\cos x + \sqrt{3}\sin x} dx$ is equal to $\log \tan\left(\frac{\pi}{3} + \frac{x}{2}\right) + C$

(b) $\log \tan\left(\frac{x}{2} - \frac{\pi}{3}\right) + C$ (c) $\frac{1}{2} \log \tan\left(\frac{x}{2} + \frac{\pi}{3}\right) + C$ (d)

none of these



Watch Video Solution

1239. $\int x \sec x^2 dx$ is equal to $\frac{1}{2} \log(\sec x^2 + \tan x^2) + C$

(b) $\frac{x^2}{2} \log(\sec x^2 + \tan x^2) + C$ (c)

$2 \log(\sec x^2 + \tan x^2) + C$ (d) none of these



Watch Video Solution

1240. If $\int \frac{1}{5 + 4\sin x} dx = A \tan^{-1} \left(B \frac{\tan x}{2} + \frac{4}{3} \right) + C$, then

$A = \frac{2}{3}, B = \frac{5}{3}$ (b) $A = \frac{1}{3}, B = \frac{2}{3}$ (c) $A = -\frac{2}{3}, B = \frac{5}{3}$

(d) $A = \frac{1}{3}, B = -\frac{5}{3}$



Watch Video Solution

1241. $\int x^{\sin x} \left(\frac{\sin x}{x} + \cos x \log x \right) dx$ is equal to (A) $x^{\sin x} + C$

(B) $x^{\sin x} \cos x + C$ (C) $\frac{(x^{\sin x})^2}{2} + C$ (D) none of these



Watch Video Solution

1242. Integration of $\frac{1}{1 + ((\log)_e x)^2}$ with respect to

$(\log)_e x$ is $\left(\frac{\tan^{-1}((\log)_e x)}{x} + C \right)$ (b) $\tan^{-1}((\log)_e x) + C$

(c) $\frac{\tan^{-1}x}{x} + C$ (d) none of these



Watch Video Solution

1243. $\int \frac{\cos 8x - 1}{\tan 2x - \cot 2x} dx$



Watch Video Solution

1244. If $\int \frac{\sin^8 x - \cos^8 x}{1 - 2\sin^2 x \cos^2 x} dx = a \sin 2x + C$, then $a =$
-1/2 (b) 1/2 (c) -1 (d) 1

 [Watch Video Solution](#)

1245. $\int (x - 1) e^{-x} dx$ is equal to $xe^x + C$ (b) $xe^x + C$ (c)
 $-xe^{-x} + C$ (d) $xe^{-x} + C$

 [Watch Video Solution](#)

1246. If $\int \frac{2^{1/x}}{x^2} dx = k 2^{1/x} + C$, then k is equal to
 $-\frac{1}{(\log)_e 2}$ (b) $(\log)_e 2$ (c) -1 (d) $\frac{1}{2}$

 [Watch Video Solution](#)

1247. $\int \frac{1}{1 + \tan x} dx =$ `

 [Watch Video Solution](#)

1248. $\int |x|^3 dx$ is equal to $\frac{x^4}{4} + C$ (b) $\frac{|x|^4}{4} + C$ (c) $\frac{x^4}{4} + C$

(d) none of these

 [Watch Video Solution](#)

1249. Evaluate: $\int \frac{\cos\sqrt{x}}{\sqrt{x}} dx$



Watch Video Solution

1250. $\int e^x(1 - \cot x + \cot^2 x) dx = e^x \cot x + C$ (b)

$e^x \cot x + C$ (c) $e^x \operatorname{cosec} x + C$ (d) $e^x \operatorname{cosec} x + C$



Watch Video Solution

1251. $\int \frac{\sin^6 x}{\cos^8 x} dx = \tan 7x + C$ (b) $\frac{\tan^7 x}{7} + C$ (c)

$\frac{\tan^7 x}{7} + C$ (d) $\sec^7 x + C$



Watch Video Solution

$$1252. \int \frac{1}{7 + 5\cos x} dx = \frac{1}{\sqrt{6}} \tan^{-1} \left(\frac{1}{\sqrt{6}} \frac{\tan x}{2} \right) + C \quad (b)$$

$$\frac{1}{\sqrt{3}} \tan^{-1} \left(\frac{1}{\sqrt{3}} \frac{\tan x}{2} \right) + C \quad (c) \quad \frac{1}{4} \tan^{-1} \left(\frac{\tan x}{2} \right) + C \quad (d)$$

$$\frac{1}{7} \tan^{-1} \left(\frac{\tan x}{2} \right) + C$$



Watch Video Solution

$$1253. \int \frac{1}{1 + \cos x + \sin x} dx = \log \left| 1 + \frac{\cot x}{2} \right| + C \quad (b)$$

$$\log \left| 1 - \frac{\tan x}{2} \right| + C \quad (c) \quad \log \left| 1 - \frac{\cot x}{2} \right| + C \quad (d)$$

$$\log \left| 1 + \frac{\tan x}{2} \right| + C$$



Watch Video Solution

1254. $\int \frac{x+3}{(x+4)^2} e^x dx = \frac{e^x}{x+4} + C$ (b) $\frac{e^x}{x+3} + C$ (c) $\frac{1}{(x+4)^2} + C$ (d) $\frac{e^x}{(x+4)^2} + C$



Watch Video Solution

1255. $\int \frac{\sin x}{3+4\cos^2 x} dx = \log(3+4\cos^2 x) + C$ (b)

$\frac{1}{2\sqrt{3}} \tan^{-1}\left(\frac{\cos x}{\sqrt{3}}\right) + C$ (c) $-\frac{1}{2\sqrt{3}} \tan^{-1}\left(\frac{2\cos x}{\sqrt{3}}\right) + C$ (d)

$\frac{1}{2\sqrt{3}} \tan^{-1}\left(\frac{2\cos x}{\sqrt{3}}\right) + C$



Watch Video Solution

1256. $\int e^x \left(\frac{1 - \sin x}{1 - \cos x} \right) dx =$ (A) $e^x \tan \left(\frac{x}{2} \right) + C$ (B)

$e^x \cot \left(\frac{x}{2} \right) + C$ (C) $-\frac{1}{2} e^x \tan \left(\frac{x}{2} \right) + C$ (D) $-\frac{1}{2} e^x \cot \left(\frac{x}{2} \right) + C$



Watch Video Solution

1257. $\int \frac{2}{(e^x + e^{-x})^2} dx$ (a) $\frac{e^{-x}}{e^x + e^{-x}} + C$ (b) $-\frac{1}{e^x + e^{-x}} + C$

(c) $\frac{-1}{(e^x + 1)^2} + C$ (d) $\frac{1}{e^x - e^{-x}} + C$



Watch Video Solution

1258. $\int \frac{e^x(1+x)}{\cos^2(xe^x)} dx = 2(\log)_e \cos(xe^x) + C$ (b)

$\sec(xe^x) + C$ (c) $\tan(xe^x) + C$ (d) $\tan(x + e^x) + C$

 [Watch Video Solution](#)

1259. $\int \frac{\sin^2 x}{\cos^4 x} dx = \frac{1}{3} \tan^2 x + C$ (b) $\frac{1}{2} \tan^2 x + C$ (c)

$\frac{1}{3} \tan^3 x + C$ (d) none

 [Watch Video Solution](#)

1260. The primitive of the function

$$f(x) = \left(1 - \frac{1}{x^2}\right) a^{x + \frac{1}{x}}, \quad a > 0 \text{ is } \frac{a^{x + \frac{1}{x}}}{(\log)_e a} \quad \text{(b) } (\log)_e a a^{x + \frac{1}{x}}$$

$$\text{(c) } \frac{a^{x + \frac{1}{x}}}{x} (\log)_e a \quad \text{(d) } x \frac{a^{x + \frac{1}{x}}}{(\log)_e a}$$



Watch Video Solution

1261. The value of $\int \frac{1}{x + x \log x} dx$ is $1 + \log x$ (b) $x + \log x$

(c) $x \log(1 + \log x)$ (d) $\log(1 + \log x)$



Watch Video Solution

1262. $\int \sqrt{\frac{x}{1-x}} dx$ is equal to $\sin^{-1}\sqrt{x} + C$ (b)

$\sin^{-1}\{\sqrt{x} - \sqrt{x(1-x)}\} + C$ (c) $\sin^{-1}\{\sqrt{x(1-x)}\} + C$ (d)

$\sin^{-1}\sqrt{x} - \sqrt{x(1-x)} + C$



Watch Video Solution

1263. Evaluate: $\int e^x (f(x) + f'(x)) dx = e^x f(x) + C$



Watch Video Solution

1264. The value of $\int \frac{\sin x + \cos x}{\sqrt{1 - \sin 2x}} dx$ is equal to

$\sqrt{\sin 2x} + C$ (b) $\sqrt{\cos 2x} + C$ (c) $\pm(\sin x - \cos x) + C$ (d)

$$\pm \log(\sin x - \cos x) + C$$



Watch Video Solution

1265. If $\int x \sin x \, dx = -x \cos x + \alpha$, then α is equal to
 $\sin x + C$ (b) $\cos x + C$ (c) C (d) none of these



Watch Video Solution

1266. $\int \frac{\cos 2x - 1}{\cos 2x + 1} \, dx = \tan x - x + C$ (b) $x + \tan x + C$ (c)
 $x - \tan x + C$ (d) $x - \cot x + C$



Watch Video Solution

1267. $\int \frac{\cos 2x - \cos 2\theta}{\cos x - \cos \theta} dx$ is equal to $2(\sin x + x \cos \theta) + C$

(b) $2(\sin x - x \cos \theta) + C$ (c) $2(\sin x + 2x \cos \theta) + C$ (d)

$2(\sin x - 2x \cos \theta) + C$

 [Watch Video Solution](#)

1268. $\int \frac{x^9 dx}{(4x^2 + 1)^9}$ is equal to (a) $\frac{1}{5x} \left(4 + \frac{1}{x^2}\right)^{-5} + c$ (b)

$\frac{1}{5} \left(4 + \frac{1}{x^2}\right)^{-5} + c$ (c) $\frac{1}{10} (1 + 4x^2)^{-5} + c$ (d)

$\frac{1}{10} \left(4 + \frac{1}{x^2}\right)^{-5} + c$

 [Watch Video Solution](#)

1269. $\int \frac{x^3}{\sqrt{1+x^2}} dx = a(1+x^2)^{3/2} + b\sqrt{1+x^2} + C$,

then $a = \frac{1}{3}, b = 1$ (b) $a = -\frac{1}{3}, b = 1$ (c)

$a = -\frac{1}{3}, b = -1$ (d) $a = \frac{1}{3}, b = -1$



Watch Video Solution

1270. $\int \frac{x^3}{x+1} dx$ is equal to $x + \frac{x^2}{2} + \frac{x^3}{3} - \log|1-x| + C$

(b) $x + \frac{x^2}{2} - \frac{x^3}{3} - \log|1-x| + C$ (c)

$x - \frac{x^2}{2} - \frac{x^3}{3} - \log|1+x| + C$ (d)

$x - \frac{x^2}{2} + \frac{x^3}{3} - \log|1+x| + C$



Watch Video Solution

1271.

$$\text{If } \int \frac{dx}{(x+2)(x^2+1)} = a \ln(1+x^2) + b \tan^{-1}x + \frac{1}{5} \ln|x+2| + C$$

Then $a = \frac{1}{10}, b = -\frac{2}{5}$ (b) $a = \frac{1}{10}, b = -\frac{2}{5}$

$a = -\frac{1}{10}, b = \frac{2}{5}$ (d) $a = \frac{1}{10}, b = \frac{2}{5}$



Watch Video Solution

1272. Evaluate: $\int \frac{1}{\sqrt{x} + \sqrt{x+1}} dx$



Watch Video Solution

1273. Evaluate: $\int \frac{1 - x^4}{1 - x} dx$



Watch Video Solution

1274. Evaluate: $\int \frac{x + 2}{(x + 1)^3} dx$



Watch Video Solution

1275. Evaluate $\int \left(\frac{8x + 13}{\sqrt{4x + 7}} \right) dx$ (A)

$\frac{1}{3}(4x + 7)^{\frac{3}{2}} - \frac{1}{2}(4x + 7)^{\frac{1}{2}} + c$ (B)

$\frac{1}{6}(4x + 7)^{\frac{5}{2}} - \frac{2}{3}(4x + 7)^{\frac{3}{2}} + c$ (C)

$$\frac{1}{3}(4x + 7)^{\frac{5}{2}} - \frac{1}{2}(4x + 7)^{\frac{3}{2}} + c \quad (D)$$

$$(4x + 7)^{\frac{3}{2}} - \frac{1}{2}(4x + 7)^{\frac{1}{2}} + c$$



Watch Video Solution

1276. Evaluate: $\int \frac{1 + x + x^2}{x^2(1 + x)} dx$



Watch Video Solution

1277. Evaluate: $\int \frac{(2^x + 3^x)^2}{6^x} dx$



Watch Video Solution

1278. Evaluate: $\int \frac{\sin x}{1 + \sin x} dx$



Watch Video Solution

1279. Evaluate: $\int \frac{x^2 + 1}{x^4 + x^2 - 1} dx$



Watch Video Solution

1280. $\int \sec^2 x \cos^2(2x) dx$



Watch Video Solution

1281. Evaluate: $\int \operatorname{cosec}^2 x \cos^2 2x dx$



Watch Video Solution

1282. Evaluate: $\int \sin^4 2x \, dx$



Watch Video Solution

1283. Evaluate: $\int \cos^3 3x \, dx$



Watch Video Solution

1284. Evaluate: $\int \frac{\sin 2x}{a^2 + b^2 \sin^2 x} \, dx$



Watch Video Solution

1285. Evaluate: $\int \frac{1}{\sqrt{1-x^2}(\sin^{-1}x)^2} dx$

 [Watch Video Solution](#)

1286. Evaluate: $\int \frac{(\sin^{-1}x)^3}{\sqrt{1-x^2}} dx$

 [Watch Video Solution](#)

1287. Evaluate: $\int \frac{1}{e^x + 1} dx$

 [Watch Video Solution](#)

1288. EXAMPLE 3-Evaluate the following integrals:

$$(i) \int \frac{e^x - 1}{e^x + 1} dx \quad (ii) \int \frac{5^x + 1}{5^x - 1} dx$$

 [Watch Video Solution](#)

1289. Evaluate: $\int \frac{1}{e^x + e^{-x}} dx$

 [Watch Video Solution](#)

1290. Evaluate: $\int \frac{\cos^7 x}{\sin x} dx$

 [Watch Video Solution](#)

1291. Evaluate: $\int \sin x \sin 2x \sin 3x dx$



Watch Video Solution

1292. Evaluate: $\int \cos x \cos 2x \cos 3x dx$



Watch Video Solution

1293. $\int \left(\frac{\sin x + \cos x}{\sqrt{\sin 2x}} dx \right)$



Watch Video Solution

1294. Evaluate: $\int \frac{\sin x - \cos x}{\sqrt{\sin 2x}} dx$



Watch Video Solution

1295. Evaluate: $\int \frac{1}{\sin(x - a)\sin(x - b)} dx$



Watch Video Solution

1296. Find the indefinite integral

$$\int \frac{1}{\cos(x - a)\cos(x - b)} dx.$$



Watch Video Solution

1297. $\int \frac{\sin x}{\sqrt{1 + \sin x}} dx$



[Watch Video Solution](#)

1298. Evaluate: $\int \frac{\sin x}{\cos^2 x} dx$



[Watch Video Solution](#)

1299. Evaluate: $\int \tan^3 x dx$



[Watch Video Solution](#)

1300. Evaluate: $\int \tan^4 x dx$



Watch Video Solution

1301. Evaluate: (i) $\int \sqrt{\tan x} \sec^4 x dx$



Watch Video Solution

1302. $\int \cot^4 x dx$ $\cot x dx$



Watch Video Solution

1303. $\int \cot^5 x dx \cot x dx$



Watch Video Solution

1304. Evaluate: $\int \frac{x^2}{(x+1)^3} dx$



Watch Video Solution

1305. Evaluate: $\int x \sqrt{2x+3} dx$



Watch Video Solution

1306. Evaluate: $\int \frac{x^3}{(x^2 + 1)^3} dx$



Watch Video Solution

1307. Evaluate: $\int x \sin^5 x^2 \cos x^2 dx$



Watch Video Solution

1308. $\int \sin^3 x \cos^5 x dx$



Watch Video Solution

1309. Find: $\int \sin^5 x dx$



Watch Video Solution

1310. $\int \cos^5 x dx$



Watch Video Solution

1311. $\int \sqrt{\sin x} \cos^3 x dx$



Watch Video Solution

1312. $\int \frac{\sin 2x}{\sin^4 x + \cos^4 x} dx$



Watch Video Solution

1313. Evaluate: $\int \frac{1}{\sqrt{x^2 - a^2}} dx$



Watch Video Solution

1314. Evaluate: $\int \frac{1}{\sqrt{x^2 + a^2}} dx$



Watch Video Solution

1315. Evaluate: (i) $\int \frac{1}{4x^2 - 4x + 3} dx$ (ii) $\int \frac{1}{x^2 + 4x + 8}$ (iii)

$$\int \frac{1}{9x^2 + 6x + 10}$$



Watch Video Solution

1316. Evaluate: $\int \frac{1}{x^2 + 4x - 5} dx$



Watch Video Solution

1317. Evaluate: $\int \frac{1}{1 - x - 4x^2} dx$



Watch Video Solution

1318. $\int \frac{1}{3x^2 + 13x - 10} dx$

 [Watch Video Solution](#)

1319. Evaluate: $\int \frac{\sin x}{\sqrt{\cos^2 x - 2\cos x - 3}} dx$

 [Watch Video Solution](#)

1320. Evaluate: $\int \sqrt{\operatorname{cosec} x - 1} dx$

 [Watch Video Solution](#)

1321. Evaluate: $\int \frac{1}{\sqrt{3 - 2x - x^2}} dx$

 [Watch Video Solution](#)

1322. Evaluate: $\int \frac{x + 1}{x^2 + 4x + 5} dx$

 [Watch Video Solution](#)

1323. Evaluate: $\int \frac{6x + 7}{\sqrt{(x - 5)(x - 4)}} dx$

 [Watch Video Solution](#)

1324. Evaluate: $\int \sqrt{\frac{1+x}{x}} dx$



Watch Video Solution

1325. Evaluate: $\int \sqrt{\frac{1+x}{x}} dx$



Watch Video Solution

1326. Evaluate: $\int \frac{\sqrt{a} - \sqrt{x}}{1 - \sqrt{ax}} dx$



Watch Video Solution

$$1327. \int \frac{dx}{(\sin x - 2\cos x)(2\sin x + \cos x)}$$



Watch Video Solution

$$1328. \text{ Evaluate: } \int \frac{1}{4\sin^2 x + 4\sin x \cos x + 5\cos^2 x} dx$$



Watch Video Solution

$$1329. \text{ Evaluate: } \int \frac{1}{1 + \tan x} dx$$



Watch Video Solution

1330. Evaluate: $\int \frac{1}{\sin^2 x + \sin 2x} dx$

 [Watch Video Solution](#)

1331. Evaluate: $\int \frac{-\sin x + 2\cos x}{2\sin x + \cos x} dx$

 [Watch Video Solution](#)

1332. Evaluate: $\int \frac{x^3}{\sqrt{x^8 + 4}} dx$

 [Watch Video Solution](#)

1333. Evaluate: $\int \frac{1}{2 - 3\cos 2x} dx$

 [Watch Video Solution](#)

1334. Evaluate: $\int \frac{\cos x}{\frac{1}{4} - \cos^2 x} dx$

 [Watch Video Solution](#)

1335. Evaluate: $\int \frac{1}{1 + 2\cos x} dx$

 [Watch Video Solution](#)

1336. Evaluate: $\int \frac{1}{1 - 2\sin x} dx$

 [Watch Video Solution](#)

1337. Evaluate: $\int \frac{1}{\sin x(2 + 3\cos x)} dx$

 [Watch Video Solution](#)

1338. Evaluate: $\int \frac{1}{\sin x + \sin 2x} dx$

 [Watch Video Solution](#)

1339. Evaluate: $\int \frac{1}{\sin^4 x + \cos^4 x} dx$

 [Watch Video Solution](#)

1340. Evaluate: $\int \frac{1}{5 - 4\sin x} dx$

 [Watch Video Solution](#)

1341. Evaluate: $\int \sec^4 x dx$

 [Watch Video Solution](#)

1342. Evaluate: $\int \operatorname{cosec}^4 2x \, dx$



Watch Video Solution

1343. $\int \frac{1 + \sin x}{\sin x(1 + \cos x)} \, dx$



Watch Video Solution

1344. Evaluate: $\int \frac{1}{2 + \cos x} \, dx$



Watch Video Solution

1345. Evaluate: $\int \sqrt{\frac{a+x}{x}} dx$

 [Watch Video Solution](#)

1346. Evaluate: $\int \frac{6x+5}{\sqrt{6+x-2x^2}} dx$

 [Watch Video Solution](#)

1347. Evaluate: $\int \frac{\sin^5 x}{\cos^4 x} dx$

 [Watch Video Solution](#)

1348. Evaluate: $\int \frac{\cos^5 x}{\sin x} dx$



Watch Video Solution

1349. Evaluate: $\int \frac{\sin^6 x}{\cos x} dx$



Watch Video Solution

1350. Evaluate: $\int \frac{\sin^2 x}{\cos^6 x} dx$



Watch Video Solution

1351. Evaluate: $\int \sec^6 x dx$



Watch Video Solution

1352. Evaluate: $\int \tan^5 x \sec^3 x \, dx$



Watch Video Solution

1353. Evaluate: $\int \tan^3 x \sec^4 x \, dx$



Watch Video Solution

1354. Evaluate: $\int \frac{1}{\sec x + \operatorname{cosec} x} \, dx$



Watch Video Solution

1355. Evaluate: $\int \sqrt{a^2 + x^2} dx$



Watch Video Solution

1356. Evaluate: $\int \sqrt{x^2 - a^2} dx$



Watch Video Solution

1357. Evaluate: $\int \sqrt{a^2 - x^2} dx$



Watch Video Solution

1358. Evaluate: $\int \sqrt{3x^2 + 4x + 1} dx$



Watch Video Solution

1359. Evaluate: $\int \sqrt{1 + 2x - 3x^2} dx$



Watch Video Solution

1360. Evaluate: $\int x \sqrt{1 + x - x^2} dx$



Watch Video Solution

1361. Evaluate: $\int (2x + 3)\sqrt{4x^2 + 5x + 6} dx$



Watch Video Solution

1362. Evaluate: $\int (1 + x^2)\cos 2x dx$



Watch Video Solution

1363. Evaluate: $\int (\log)_{10} x dx$



Watch Video Solution

1364. Evaluate: $\int \left(\frac{\log(\log x)}{x} \right) dx$

 [Watch Video Solution](#)

1365. Evaluate: $\int x \sec^2 2x \, dx$

 [Watch Video Solution](#)

1366. Evaluate: $\int x \sin^3 x \, dx$

 [Watch Video Solution](#)

1367. Evaluate: $\int (x + 1)^2 e^x dx$



Watch Video Solution

1368. $\int \log\left(x + \sqrt{a^2 + x^2}\right) dx$



Watch Video Solution

1369. Evaluate: $\int \frac{\log x}{x^3} dx$



Watch Video Solution

1370. Evaluate: $\int \frac{\log(1-x)}{x^2} dx$

 [Watch Video Solution](#)

1371. Evaluate: $\int x^3 (\log x)^2 dx$

 [Watch Video Solution](#)

1372. Evaluate: $\int \frac{1}{x \sqrt{1+x^n}} dx$

 [Watch Video Solution](#)

1373. Evaluate: $\int \frac{x^2}{\sqrt{1-x}} dx$



Watch Video Solution

1374. Evaluate: $\int \frac{x^5}{\sqrt{1+x^3}} dx$



Watch Video Solution

1375. Evaluate: $\int \frac{1+x^2}{\sqrt{1-x^2}} dx$



Watch Video Solution

1376. Evaluate: $\int x \sqrt{\frac{1-x}{1+x}} dx$



Watch Video Solution

1377. Evaluate: $\int \frac{1}{x\sqrt{1+x^3}} dx$



Watch Video Solution

1378. $\int \frac{\sin x + \cos x}{\sin^4 x + \cos^4 x} dx$



Watch Video Solution

1379. Evaluate: $\int x^2 \tan^{-1} x \, dx$



Watch Video Solution

1380. $\int \tan^{-1} \sqrt{x} \, dx$



Watch Video Solution

1381. Evaluate: $\int \sin^{-1} \sqrt{x} \, dx$



Watch Video Solution

1382. $\int \sec^{-1} \sqrt{x} dx$



Watch Video Solution

1383. Evaluate: $\int \tan^{-1} \sqrt{\frac{1-x}{1+x}} dx$



Watch Video Solution

1384. $\int \sin^{-1} \sqrt{\frac{x}{a+x}} dx$



Watch Video Solution

1385. $\int (\sin^{-1}(3x - 4x^3)) dx$



Watch Video Solution

1386. Evaluate: $\int (\sin^{-1}x)^3 dx$



Watch Video Solution

1387. $\int \cos^{-1}(1 - 2x^2) dx$



Watch Video Solution

1388. $\int \frac{x \sin^{-1} x}{(1-x^2)^{\frac{3}{2}}} dx$

 [Watch Video Solution](#)

1389. Evaluate: $\int e^{2x} \left(\frac{1 + \sin 2x}{1 + \cos 2x} \right) dx$

 [Watch Video Solution](#)

1390. Evaluate: $\int \frac{1 + \sin x}{\sqrt{x - \cos x}} dx$

 [Watch Video Solution](#)

1391. Evaluate: $\int e^x \frac{(1-x)^2}{(1+x^2)^2} dx$

 [Watch Video Solution](#)

1392. Evaluate: $\int \frac{e^{m \tan^{-1} x}}{(1+x^2)^{3/2}} dx$

 [Watch Video Solution](#)

1393. Evaluate: $\int \frac{x^2}{(x-1)^3(x+1)} dx$

 [Watch Video Solution](#)

1394. Evaluate: $\int \frac{x}{x^3 - 1} dx$

 [Watch Video Solution](#)

1395. Evaluate: $\int \frac{1}{1 + x + x^2 + x^3} dx$

 [Watch Video Solution](#)

1396. Evaluate: $\int \frac{1}{(x^2 + 2)(x^2 + 5)} dx$

 [Watch Video Solution](#)

1397. Evaluate: $\int \frac{x^2 - 2}{x^5 - x} dx$



Watch Video Solution

1398. Evaluate: $\int \sqrt{\frac{1 - \sqrt{x}}{1 + \sqrt{x}}} dx$



Watch Video Solution

1399. Evaluate: $\int \frac{x^2 + x + 1}{(x + 1)^2(x + 2)} dx$



Watch Video Solution

1400. Evaluate: $\int e^x \left(\frac{\sin 4x - 4}{1 - \cos 4x} \right) dx$



[Watch Video Solution](#)

1401. $\int \frac{\cot x + \cot^3 x}{1 + \cot^3 x} dx$



[Watch Video Solution](#)

Others

1. Evaluate: $\int \frac{x - 1}{(x + 1)\sqrt{x^3 + x^2 + x}} dx$



[View Text Solution](#)

2. Evaluate: $\int \frac{\sqrt{x}}{\sqrt{x} - x^{\frac{1}{3}}} dx$

 [View Text Solution](#)

3. Evaluate: $\int \frac{1}{4\sqrt{(x-10)^3(x+2)^5}} dx$

 [View Text Solution](#)

4. Evaluate: $\int \frac{1}{(x-1) + \sqrt{x^2-1}} dx$

 [View Text Solution](#)

5. Evaluate: $\int \frac{\tan\theta + \tan^3\theta}{1 + \tan^3\theta} d\theta$

 [View Text Solution](#)

6. Evaluate: $\int \frac{1}{\sin x (2\cos^2 x - 1)} dx$

 [View Text Solution](#)