MATHS

BOOKS - BEYOND PUBLICATION

CO-ORDINATE GEOMETRY

Example

1. Find the distance covered by the knight in eanch of its 8 moves i.e., find the distance of A , B , C , D , E , F , G and H from the origin. (AS_5)

2. What is the distance between two points H and C ?And find the distance between two points A and B (AS_1)

3. Where do these following points lie (- 4 , 0) , (2 , 0) , (6 , 0) , (- 8,0) on coordi- nate plane ? (AS_3)

4. What is the distance between points (- 4 , 0) and (6 , 0) on coordinate plane ?

5. Find the distance between the following points .

(3,8)(6,8).

6. Find the distance between the following points .

(-4,-3)(-8,-3)

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7. Find the distance between the following points .

(3,4) (3,8)

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8. Find the distance between the following points .

(-5,-8) (-5,-12)

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9. Find the distance between the following points .

A = (2 , 0) and B (0 , 4) (AS_1)

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10. Find the distance between the following points .

P (0 , 5) and Q (12 , 0) .

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11. Find the distance between the following pair of points .

(7 , 8) and (- 2 , 3)

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12. Find the distance between the following pair of points: (-8, 6) and (2, 0)

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13. Where so these following points lie- (0 , - 3) , (0 , -8) , (0 , 6) , (0 , 4) on coordi- nate plane ? (AS_3)

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14. What is the distance between (0 , -3) , (0 , -8) and justify that the distance between two points on Y - axis is $|y_2 - y_2|$ on coordinate plane ? (AS_1, AS_3)

15. Find the distance between points 'O' (origin) and 'A' (7 , 4) . (AS_1)

16. Find the distance between A(1 , - 3) and B(- 4 , 4) and rounded to two decimals . (AS_1)

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17. How will you find the distance between two points in which x or y coordinates are same but not zero like (2, 4) and (2, 9) ?

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18. Ramu says the distance of a point P(x.y) from the origin O(0,0) is $\sqrt{x^2 + y^2}$. Do you agree with Ramu or not ? Why ? (AS_2, AS_3)

19. Ramu also writes the distance formula as $AB = \sqrt{(x_1 - x_2)^2 + (y_1 - y_2)^2}$. why ?

20. Sridhar calculated the distance between T (5 , 2) and (R (- 4 , - 1) to the nearest tenth is 9 . 5 units . Now you find the distance between P (4 , 1) and Q (- 5 , - 2) . Do you get the same answer that Sridhar got ? Why ? (AS_2, AS_3)

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21. What is the distance between A (4 , 0) and B (8 , 0) ?

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22. A and B are two points given by (8 , 3) , (- 4, 3) . Find the distance between A and B .

23. Find the distance between two points A (4 , 3) and B (8 , 6) . (AS_1)

24. Show that the points A = (4 , 2) , B (7 , 5) and C (9 , 7) are collinear.

25. Are the points (3 , 2) , (- 2 , - 3) and (2 , 3) form a triangle ? (AS_2)

26. Show that the points (1 , 7) , (4 , 2) , (- 1 , -1) and (- 4 , 4) are vertices of a square . (AS_2)

27. Figure shows the arrangement of desks in a classroom. Madhuri, Meena , Pallavi are seated at A (3 , 1) , B (6 , 4) and C (8 , 6) respectively. Do you think they are seated in a

line ? Give reasons for your . (AS_2)
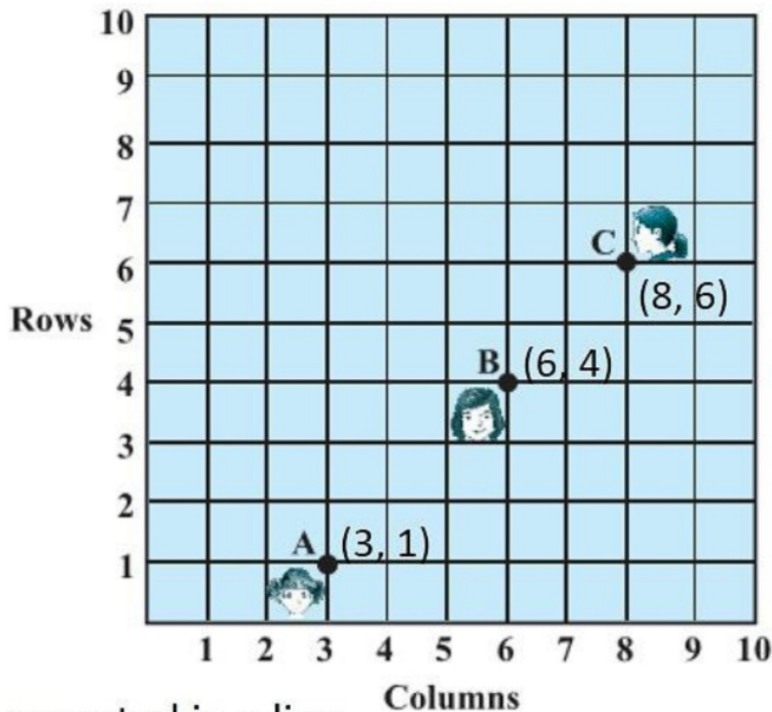
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28. Find the relation between x and y such that point (x , y) is equidistant from the points (7 ,

1) and (3 , 5) .

29. Find a point on the Y-axis which is equidistant from both the points. A(6, 5) and B(-4, 3).

30. Find the distance between the following pair of points .

(2 , 3) and (4 , 1)

(AS_1)

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31. Find the distance between the following

pair of points.

(- 5 , 7) and (- 1 , 3)

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32. Find the distance between the following pair of points .

(- 2 , -3) and (3 , 2)

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33. Find the distance between the following pair of points .

(a , b) and (- a , - b)

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34. Find the distance between the points (0, 0) and (36, 15) .

(AS_1)

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35. Verify that the points (1 , 5) , (2 , 3) and (- 2 , -1) are collinear or not .

(AS_2)

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36. Check whether (5 , -2) , (6 , 4) and (7 , -2) are the vertices of an isosceles traingle .

37. In a classroom, 4 friends are seated at the points A,B,C and D as shown in figure. Jarina and Phani walk into the class and after observing for a few minutes Jarina asks Phani "Don't you think ABCD is a square?" Phani disagrees. Using distance formula. Find which

of them is correct. Why?

38. Show that the following points form an equilateral triangle A(a , 0) ,

$$(AS^2)$$

B (-a,0) , $C\left(0, a\sqrt{3}\right)$.

39. Prove that the points (- 7 , - 3) , (5 , 10) , (15 , 8) and (3 , - 5) taken in order are the corners of a parallelogram .

(AS_2)

40. Show that the points (- 4 , -7) , (- 1 , 2) , (8 , 5) and (5 , -4) taken in order are the vertices of a rhombus. And find its area.

(Hint : Area of rhombus $= \dfrac{1}{2} \times$ pro-duct of its diagonals) (AS_2, AS_4)

41. Name the type of quadrilateral formed, if any, by the points, and give reasons for your answer.

(-3, 5), (3, 1), (1, -3), (-5, 1)

42. Name the type to quadrilateral formed, if any , by the following points, and give reasons for your answer. (AS_2)

(- 3 , 5), (1 , 10) , (3 , 1) , (- 1, -4) .

43. Name the type of quadrilateral formed, if any, by the points, and give reasons for your answer.

(4, 5), (7, 6), (4, 3), (1, 2)

44. Find the point on the X - axis which is equidistant from (2 , -5) and (- 2 , 9). (AS_1)

45. If the distance between two points (x , 7) and (1 , 15) is 10, find the value of x . (AS_1)

46. Find the value of y for which the distance between the points P(2 , -3) and Q (10, y) is 10 units. (AS_1)

47. Find the radius of the circle whose centre is (3 , 2) and passes through (- 5 , 6) . (AS_4)

48. Can you draw a triangle with vertices (1 , 5) , (5 , 8) and (13 , 14) ? Give reason . (AS_2)

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49. Find a relation between x and y such that the point (x , y) is equi-distant from the points (- 2 , 8) and (- 3 , - 5) . (AS_3)

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50. Find the coordinates of the point which divides the line segment join- lng the points (4 , - 3) and (8 , 5) in the ratio 3 : 1 internally . (AS_1)

51. Find the midpoint of the line segment joining the points (3 ,0) and (- 1 , 4) . (AS_1)

52. Find the coordinates of the points of trisection of the line segment joining the points A(2 , -2) and B(- 7 , 4) . (AS_1)

53. Find the centroid of the triangle whose vertices are (3 , - 5) , (- 7 , 4) , (10 , - 2) respectively . (AS_1)

54. In what ratio does the point (- 4 , 6) divide the line segment joining the points A (- 6 , 10) and B (3 , - 8) ? (AS_1)

55. Find the ratio in which the Y - axis divides the line segment joining the points (5 , -6) and (- 1 , - 4) . Also find the point of intersection (AS_1)

56. Show that the points A(7 , 3) , B (6 , 1) , C (8 , 2) and D (9 , 4) taken in that order are vertices of a parallelogram . (AS_2)

57. If the points A (6 , 1) , B (8 , 2) , C (9 , 4) and D (p, 3) are the vertices of a par - allelogram , taken in order , find the value of P.

58. Find the point which divides the line segment joining the points (3 , 5) and (8 , 10) internallly in the ratio 2 : 3 . (AS_1)

59. Find the midpoint of the line segment joining the points (2 , 7) and (12 , - 7) . (AS_1)

60. Find the trisectional points of line joining(

2 , 6) and (- 4 , 8) . (AS_1)

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61. Find the coordinates of the point which

divides the line segment join-ing the points (-

1 , 7) and (4 , - 3) in the ratio 2 : 3 (AS_1)

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62. Find the points of trisection of the line segment joining (2,3) and (11,6).

63. Find the ratio in which the line segment joining the point (- 3 , 10) and (6 , -8) is divided by (- 1 , 6). (AS_1)

64. If (1 , 2) , (4 , y) , (x , 6) and (3 , 5) are the vertices of a parallelogram taken in order, find x and y . (AS_4)

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65. Find the coordinates of a point A , where AB is the diameter of a circle whose centre is (2 , - 3) and B is (1 , 4) . (AS_4)

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66. If A and B are (- 2 , - 2) and (2 , - 4) respectively . Find the coordinates of P such that $AP = \dfrac{3}{7} AB$ and P lies on the segment AB . (AS_1)

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67. Find the coordinates of points which divide the line segment joining A (- 4 , 0) and B(0 , 6) into four equal parts . (AS_1)

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68. Find the area of the triangle formed by the following points

(2 , 0) , (1 , 2) , (1 , 6)

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69. Find the area of the triangle formed by the following points

(3 , 1) , (5 , 0) , (1 , 2)

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70. Find the area of the triangle formed by the following points

(- 1 , 5 , 3) , (6 , 2) , (- 3 , 4)

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71. Find the area of the triangle whose vertices are: (5, 2) (3, -5) and (-5, -1).

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72. Find the area of the triangle whose vertices are

(6 , -6) , (3 , - 7) and (3 , 3) .

73. Verify whether the following points are collinear or not .

(1 , -1) , (2 , 3) , (2 , 0)

74. Verify whether the following points are collinear or not .

(1 , -1) , (2 , 3) , (2 , 0)

75. Verify whether the following points are collinear or not .

(1 , -6) , (3 , -4) , (4 , - 3) .

76. Find the area of the triangle whose lengths of sides are 15 m , 17 m , 21 m (use Heron 's Formula) (AS_1, AS_2)

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77. Find the area of the triangle formed by the points (0 , 0) , (4 , 0) ,(4 , 3) by unsing Heron's formula . (AS_1)

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78. Find the area of a triangle whose vertices are (1 , -1) , (- 4 , 6) and (- 3 , -5) . (AS_1)

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79. Find the area of a triangle formed by the points A(5 , 2) , B (4 , 7) and C (7 , -4) . (AS_1)

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80. If A(-5,7),B(-4,-5),C(-1,-6) and D(4,5) are the vertics of a quadrilateral. Then, find the area of the quadrilateral ABCD.

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81. The points (3 , - 2) , (- 2 , 8) and (0 ,4) are three points in a plane . Show that these points are collinear . (AS_2)

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82. Find the value of 'b' for which the points

A(1, 2), B(-1, b) and C(-3, -4) are collinear .

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83. Find the area of the triangle whose vertices

are: (2, 3), (-1, 0), (2, -4)

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84. Find the area of the triangle whose vertices are: (5, 2) (3, -5) and (-5, -1).

85. Find the area of the triangle whose vertices are (AS_1)

$(0 , 0) , (3 , 0) , (0 , 2)$

86. Find the valueof 'K' for which the points are collinear. (AS_1)

(7 , -2) , (5 , 1), (3 , K)

87. Find the value of 'K' for which the points are collinear . (AS_1)

(8 , 1) , (K , -4), (2 , - 5)

88. Find the value of 'K' for which the points are collinear . (AS_1)

(K , K) ,(2 , 3) and (4 , -1)

89. Find the area of the triangle formed by joining the mid-points of the sides of the triangle whose vertices are (0 , - 1) , (2 , 1) and (0 , 3) . Find the ratio of this area to the area of the given triangle . (AS_1)

90. Find the area of the quadrilateral whose vertices taken inorder are (- 4 , - 2) , (- 3 , - 5) , (3 , - 2) and (2 , 3) (AS_1)

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91. Find the area of the triangle formed by the points (8,-5),(-2,-7) & (5,1) by using Hero's formula.

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92. Plot these points on the coordinate axis and join them (AS_3)

which gives a straight line ? Which in not why ?

A (1 , 2) , B (- 3 , 4) , C (7 , -1)

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93. Plot these points on the coordinate axis and join them (AS_3)

which gives a straight line ? Which in not why

?

P(3 , - 5) , Q (5 , -1) R(2 , 1) , S (1 , 2)

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94. Find the slope of $\overleftrightarrow{AB}$ with the given end points

A (4 , - 6) , B (7 , 2)

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95. Find the slope of $\overleftrightarrow{AB}$ with the given end points

A (8 , - 4) , B (- 4 , 8)

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96. Find the slope of $\overleftrightarrow{AB}$ with the given end points

A (- 2 , - 5) , B (1 , - 7)

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97. Does y = x + 7 represent a straight line ? Draw the line on the coordinate plane . At which point does this line intersect Y-axis ? How much angle does it make with X - axis ? Discuss with your friends . (AS_3, AS_5)

98. Find the slope $\overleftrightarrow{AB}$ with the points lying on A (3 , 2) , (B (- 8 , 2) . When the line $\overleftrightarrow{AB}$ parallel to X - axis ? Why ? Think and discuss with your friends in groups . (AS_2, AS_3)

99. Find the slope of $\overleftrightarrow{AB}$ with the points lying on (AS_1)

A (2 , 1) , B (2 , 6)

100. Find the slope of $\overleftrightarrow{AB}$ with the points lying on (AS_1)

A(- 4 , 2) , B (- 4 , - 2) `

101. Find the slope of $\overleftrightarrow{AB}$ with the points

lying on (AS_1)

A (- 2 , 8) , B (- 2 , - 2)

102. The end points of a line segment are (2 ,

3) , (4 , 5) . Find the slope of the line

103. Determine 'x' so that 2 is the slope of the line passing through A (-2, 4) and B(x, -2).

104. Find the slope of the line passing through the given two point

A(3, -2), B(-6, -2)

105. Find the slope of the line joining the two given points (AS_1)

(2a , 3b) and (a , - b) .

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106. Find the slope of the line joining the two given points (AS_1)

(a , 0) and (0 , b) .

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107. Find the slope of the line joining the two given points (AS_1)

A(- 1.4 , - 3 . 7) , B (- 2 . 4 , 1 . 3) .

108. Find the slope of the line passing through the given two point

A(3, -2), B(-6, -2)

109. Find the slope of the line joining the two given points (AS_1)

$$A\left(-3\frac{1}{2}, 3\right), B\left(-7, 2\frac{1}{2}\right).$$

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110. Find the slope of the line joining the two given points (AS_1)

A(0 , 4) , B (4 , 0)

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111. Centre of a circle Q is on the Y-axis. The circle passes through the points (0, 7) and (0, -1). If it intersects the positive X-axis at (P, 0), what is the value of 'P'?

112. The circumcenter of the triangle formed by the point (1,2,3) (3,-1,5), (4,0,-3) is

113. The side BC of an equilateral $\triangle ABC$ is parallel to X - axis . Find the slopes of line along sides BC , CA and AB .

114. A right triangle has sides 'a' and 'b' where a>b . If the right angle is bisected then find the distance between orthocentres of the smaller triangles using coordinate geometry.

115. Find the centroid of the triangle formed by the line 2 x + 3 y - 6 = 0 with the coordinate axes .

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116. Where do the points (0 , - 3) and (- 8 , 0) lie on co-ordinate axis ?

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117. Find the centroid triangle whose ver-tices are (3 , 4) (- 7 , - 2) and (10 , - 5) .

118. Show that the points A = (4 , 2) , B (7 , 5) and C (9 , 7) are collinear.

119. Name the type of the quadrilateral formed by joining the points A(- 1 , - 2) B (1 , 0) , C(- 1 , 2) and D(- 3 , 0) are graph paper , justify your answer .

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120. Find the mid point of the line segment formed by the points (- 5 , 5) and (5 , - 5) .

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121. Show that the points A(-3,3)B(0,0) C(3,-3) are collinear.

122. Find the trisection points of the line segment joined by the points (- 3 , 3) and (3 , -3).

123. Find the distance between the following pairs of points.

(3,4) and (6,2)

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124. Find the distance between the following pairs of points.

(-4,6) and (0,2)

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125. Find the distance between the following pairs of points.

(-a,b) and (a,-b)

126. Verify whether the points A(1,3), B(3,5) and C(-4,20) are collinear or not.

127. Show that (5,3),(1,2) and (-3,1) are the vertices of an isosceles triangle.

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128. Show that the points (0,-2),(3,2),(0,6) and (-3,2) are the vertices of a square.

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129. Show that points (2,4),(3,7),(6,8) and (5,5)

are the vertices of a Rhombus.

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130. Find the co-ordinates of the point which

divides the line segment joining the points

(-2,6) and (3,-4) in the ratio 3:5.

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131. Find the ratio in which the X-axis divides the line segment joining the points (6,-2) and (4,1) also find the point of intersection.

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132. Find the ratio in which the Y-axis divides the line segment joining the points (9,-4) and (3,-2) .Also find the point of intersection.

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133. Find the centroid of the triange whose vertices are given below

(1,6),(7,4),(1,5)

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134. Find the centroid of the triange whose vertices are given below

(1,0),(-3,-3),(-4,-3)

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135. Find the area of the triangle whose vertices are

(3,4),(0,10),(3,-3)

136. Find the area of the triangle whose vertices are

(2,10),(4,7),(0,-1)

137. Find the value of 'k' for which the points are collinear.

(k,9),(7,7),(1,5)

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138. Find the value of 'k' for which the points are collinear.

(6,-1),(k,-6),(0,-7)

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139. Find the value of 'k' for which the points are collinear.

(k,k),(1,2),(3,-2)

140. Find the slope of the line joining the points.

(7,-5) and (8,1)

141. Find the slope of the line joining the points.

(4a,6b) and (a,-b)

142. Find the slope of the line joining the points.

(5,-1) and (-8,0)

143. Find the slope of a line whose inclination is

$60°$

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144. Find the slope of a line whose inclination is

$135°$

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145. Find the slope of the line whose inclination is

$120°$

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146. Find the slope of a line whose inclination is

$135°$

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147. If (6,7) is the mid point of the line segment joining A(7,6) and B(5,y) , find 'y'.

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148. Find the value of "p" for which the points are collinear (6,2),(5,-1),(4,p).

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149. Find the value of "S" for (7,S),(3,-2) (7,8) are collinear.

150. Find the distance between (5,6)(-2,3).

151. Find the distance between (-2,3) and (5,-3).

152. Find the co-ordionates of the points of trisection of the line segment joining the points A(3,-3) and B(-5,2).

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153. Find the co-ordinates of the points of trisection of the line segment joining the points A(0,5) and B(-3,2).

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154. If A(-2,3)B(-7,-3)C(2,5)D(5,7) are the vertices of the quadrilateral then find the area of the quadrilateral ABCD.

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155. If A(-3,5)B(6,0)C(5,1)D(-3,2) are the vertices of the quadrilateral then find the area of the quadrilateral ABCD.

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156. Find the area of the triangle. Whose lenghts of sides are 14m, 16m, 20m.

157. Find the area of the triangle, whose length of sides are 21m, 30m, 35m.

158. Find the distance between (3,5) and (7,0).

159. Find the distance between points origin and (8,5).

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160. If distance between (x,5)(4,5) is 36 then find the value of x.

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161. If A(2,3) B(5,6) C(1,2) are the points of $\triangle\,ABC$ then perimenter of $\triangle\,ABC$.

162. Are the points (4,2)(-5,-7) and (2,4) from a triangle.

163. Are the points (1,8)(2,5)(1,2)(4,4) are the vertices of a square.

164. Find the area of the triangle formed by the points (8,-5),(-2,-7) & (5,1) by using Hero's formula.

165. Find the trisection points of the line segment. Joined by the points (-4,4) and (4,-4).

166. Show that (1,-8)(3,6)(2,-1) are collinears.

167. Are the points (1,2),(1,0),(4,3),(5,6) are the vertices of a rhombus.

168. Check whether the points (5,4)(3,6) and (-2,-1) are the vertices of a right angles triangle.

169. Can you draw a triangle with vertices (-2,-2)(4,50(0,11)? Give reason.

170. Find the slope of the line joining the points are (8,-2)(5,6).

171. The slope of the line $\dfrac{x}{a} + \dfrac{y}{b} = 1$

172. Find the centroid of $\triangle ABC$ whose vertices are A(-5,6) B(4,1)C(1,2).

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173. If the line y = mx+c passing through the points (0,3),(4,0) then intercept is

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174. Find the point on the Y-axis which is equidistant from (-5,-2) and (3,2).

175. Find the value of p for which the points (P,8),(4,4),(-1,3) are collinear

176. Find the area of quadrilateral whose co-ordinates are (1,2),(6,2),(5,3),(3,4).

177. Give any five examples of points on Y-axis and X-axis.

Exercise

1. Find the distance between the following pairs of points .

A(-2,5) and B(3,-7)

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2. Find the distance between the following pairs of points .

A(4,5) and B(-3,2)

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3. Find the distance between the following pairs of points .

A(-1,2) and B(5,0)

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4. Find the distance between the following pairs of points .

A(6,-4) and B(3,0)

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5. Find the distance between the following pairs of points .

A(5,-12) and B(9,-9)

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6. Find the distance between the following pairs of points .

A(2,-10) and B(3,4)

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7. Show that the following points are collinear.

(2,4),(0,1),(4,7)

8. Show that the following points are collinear.

(-2,5),(2,-3),(0,1)

9. Show that the following points are collinear.

(1,-8),(3,6),(2,-1)

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10. Show that the following points are collinear.

(3,8),(-4,2),(10,14)

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11. Show that the points (-2,-1),(1,0),(4,3) and (1,2) are vertices of a parallelogram.

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12. Show that the points (1,3),(2,6),(5,7) and (4,4) are the vertices of a rhombus.

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13. Show that the points $(1,-1),(-2,2),(4,8)$ and $(7,5)$ are the vertices of a rectangle.

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14. Show that the points $(0,-1),(2,1),(0,3),(-2,1)$ are the vertices of a square.

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15. Can you draw a triangle with vertices (-1,1) (2,3) and (8,11)? Give reason.

16. Find the point on the Y-axis which is equidistant from (-5,-2) and (3,2).

17. Find the retation between x and y, If the point (x,y) is to be equidistant from (6,-1) and (2,3)

18. Without using the Pythagoras theorem, show that the points (4,4), (3, 5) and $(-1, -1)$ are the vertices of a right angled triangle.

19. Find the ratio in which the X-axis divided the line segment joining points (7,-3) and (5,2).

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20. Find the ratio in which X-axis divides the line segment joining the points (2, -3) and (5, 6). Then find the intersecting point on X-axis.

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21. Find the co-ordinates of the point which divides the line joining (5,-2) and (9,6) internally in the ratio 1:2.

22. Find the centroid of the triangle whose vertices are given below.

(-1,4),(5,2),(-1,3)

23. Find the centroid of the triangle whose vertices are given below.

(5,4),(1,1),(0,1)

▶ Watch Video Solution

24. Find the centroid of the triangle whose vertices are given below.

(-1,0),(5,-2),(8,2)

▶ Watch Video Solution

25. Find the centroid of the triangle whose vertices are given below.

(2,8),(7,3),(-1,-1)

▶ **Watch Video Solution**

26. Find the area of the triangle whose vertices are

(3,4),(7,8),(-1,2)

▶ **Watch Video Solution**

27. Find the area of the triangle whose vertices

are

(2,-7),(1,3),(10,8)

▶ Watch Video Solution

28. Find the area of the triangle whose vertices

are

(1,8),(2,5),(-2,-3)

▶ Watch Video Solution

29. Find the area of the triangle whose vertices are

(-2,4),(2,-6),(5,4)

▶ Watch Video Solution

30. Find the value of 'K' for which the points are collinear.

(K,7),(5,5),(-1,3)

▶ Watch Video Solution

31. Find the value of 'K' for which the points are collinear.

(3,8),(-4,2),(K,14)

▶ **Watch Video Solution**

32. Find the value of 'K' for which the points are collinear.

(-1,2),(K,0),(2,1)

▶ **Watch Video Solution**

33. Find the value of 'K' for which the points are collinear.

(7,-2),(5,1),(3,2k)

34. Find the area of the quadrilateral whose vertices taken inorder are (- 4 , - 2) , (- 3 , - 5) , (3 , - 2) and (2 , 3) (AS_1)

35. Find the area of the quadrilaterals, the co-ordinates of whose vertices are given below.

(1,2),(6,2),(5,3),(3,4)

▶ Watch Video Solution

36. Find the area of the quadrilaterals, the co-ordinates of whose vertices are given below.

(2,1),(6,0),(5,-2),(-3,-1).

▶ Watch Video Solution

37. Find the area of the quadrilaterals, the co-ordinates of whose vertices are given below.

(0,0),(a,0),(a,b),(0,b).

▶ **Watch Video Solution**

38. Find the area of the quadrilaterals, the co-ordinates of whose vertices are given below.

(1,1),(7,-3),(12,2),(7,21)

▶ **Watch Video Solution**

39. Find the slope of the line joining the points.

(5,-2) and (-1,4)

▶ Watch Video Solution

40. Find the slope of the line joining the points.

(3,5) and (-1,-1)

▶ Watch Video Solution

41. Find the slope of the line joining the points.

(5,6) and (2,3)

▶ Watch Video Solution

42. Find the slope of the line joining the points.

(9,-2) and (6,-5)

▶ Watch Video Solution

43. Find the slope of the line joining the points.

(8,2) and (-5,3)

44. Find the slope of the line joining the points.

(4,5) and (0,-2)

45. Find the slope of the line joining the points.

(-2,-1) and (4,0)

> ▶ Watch Video Solution

46. Find the slope of the line joining the points.

(4,-6) and (-2,-5)

> ▶ Watch Video Solution

47. Find the slope of a line whose inclination is

60°

▶ **Watch Video Solution**

48. Find the slope of a line whose inclination is

45°

▶ **Watch Video Solution**

49. Find the slope of a line whose inclination is

$90°$

▶ **Watch Video Solution**

50. Find the slope of a line whose inclination is

$150°$

▶ **Watch Video Solution**

51. If (5,6) is the mid point of the line segment joining A(6,5) and B(4,y), find 'y'.

▶ **Watch Video Solution**

52. If A(1,2) , B(3,4) and C(6,6) are the three vertices of a parallelogram ABCD , find the co-ordinates of the fourth vertex D.

▶ **Watch Video Solution**

53. The scientist who introduced co-ordinate

Geometry is

A. J.J.Sylvester

B. Crames

C. Rene Descartes

D. Newton

Answer:

▶ **Watch Video Solution**

54. The distance between the points (x,1) and (1,y) is

A. $\sqrt{(x+1)^2 + (y+1)^2}$

B. $\sqrt{(1-x)^2 + (y-1)^2}$

C. $\sqrt{(x-1)^2 + (y+1)^2}$

D. $\sqrt{(x+1)^2 + (y-1)^2}$

Answer:

▶ Watch Video Solution

55. A point on Y-axis is

A. (3,0)

B. (1,2)

C. (0,0)

D. (0,3)

Answer:

56. The points (0,3) (0,0) (4,0) form a

A. Isosceles triangle

B. Equilateral triangle

C. Right angle triangle

D. Scalene triangle

Answer:

▶ Watch Video Solution

57. The slope of the line joining (4,6) and (2,-5)

is

A. $\dfrac{11}{2}$

B. $\dfrac{2}{11}$

C. $-\dfrac{2}{11}$

D. $-\dfrac{11}{2}$

Answer:

▶ **Watch Video Solution**

58. The distance between (7,0) and (4,k) is 5 units then k=

A. -4

B. ± 4

C. $+4$

D. none

Answer:

59. A strainght line make angle θ with the X-axis then the slope is

A. $-\sin\theta$

B. $\cos\theta$

C. $\tan\theta$

D. $\sec\theta$

Answer:

▶ Watch Video Solution

60. Mid-point of the line points (-4,2) and (2,8) is

A. (-1,5)

B. (-3,-3)

C. (-2,10)

D. (-6,-6)

Answer:

61. (1,2),(2,3),(3,4) are vertices of a traingle then its centroid is

A. (6,9)

B. (0,-1)

C. (2,3)

D. (-2,-3)

Answer:

62. (1,2),(2,3),(3,1) are the midpoints of the sides of the triangle then the area of the triangle is (in.sq.units)

A. 7

B. $\dfrac{5}{2}$

C. 14

D. 6

Answer:

63. The co-ordinates of the mid point of the line joining points (3,-1) and (5,3) is

A. (8,4)

B. $\left(\dfrac{8}{3}, \dfrac{4}{3} \right)$

C. (4,2)

D. (4,1)

Answer:

▶ Watch Video Solution

64. The equation of the line passing through origin having slope

A. $2x-3y = 0$

B. $2y = x$

C. $3x-2y = 0$

D. $3y-2x$

Answer:

▶ Watch Video Solution

65. If a line make an angle $150°$ with +ve X-axis then the slope of the line

A. $\sqrt{3}$

B. $-\dfrac{1}{\sqrt{3}}$

C. $-\sqrt{3}$

D. $\dfrac{1}{\sqrt{3}}$

Answer:

▶ **Watch Video Solution**

66. Slope of the line 3x-4y+12=0

A. $\dfrac{3}{4}$

B. $-\dfrac{4}{3}$

C. 4

D. $\dfrac{1}{\sqrt{3}}$

Answer:

▶ **Watch Video Solution**

67. Slope of the line joining points (2,-3)(1,4)

A. -7

B. 7

C. -1

D. $\dfrac{3}{7}$

Answer:

▶ Watch Video Solution

68. Angle made by the line y = x with the positive direction of X-axis is ....

A. $30°$

B. $60°$

C. $90°$

D. $45°$

Answer:

69. The slope of the line $\dfrac{x}{a} + \dfrac{y}{b} = 1$

A. $-\dfrac{a}{b}$

B. $-\dfrac{b}{a}$

C. 1

D. $\dfrac{a}{b}$

Answer:

▶ Watch Video Solution

70. The line y= mx+c cut the Y-axis at the point

A. (0,0)

B. (0,c)

C. (c,0)

D. (0,m)

Answer:

71. The distance of the point (a,b) from the origin.

A. $\sqrt{a+b}$

B. $\sqrt{a^2 - b^2}$

C. $\sqrt{a^2 + b^2}$

D. $\sqrt{a} + \sqrt{b}$

Answer:

72. The centriod of the traingle made by the vertices A(-2,3), B(4,1), C(1,2) is

A. (1,2)

B. $\left(\dfrac{3}{2}, 2\right)$

C. (0,0)

D. $\left(\dfrac{7}{3}, 2\right)$

Answer:

73. The slope of the line is $\dfrac{2}{5}$ then the slope of the parallel of that line

A. $\dfrac{5}{2}$

B. $\dfrac{2}{5}$

C. $-\dfrac{5}{2}$

D. 1

Answer:

▶ **Watch Video Solution**

74. If the line y = mx+c passing through the points (0,3),(4,0) then intercept is

A. 4

B. -3

C. -4

D. 3

Answer:

75. The line ax+by+c=0 intersects X-axis at

A. $\left(\dfrac{c}{a}, 0\right)$

B. $\left(0, \ -\dfrac{c}{b}\right)$

C. (0,0)

D. $\left(-\dfrac{c}{a}, 0\right)$

Answer:

▶ **Watch Video Solution**

76. The line ax+by+c=0 intersects Y-axis at

A. $\left(0, \ -\dfrac{c}{b}\right)$

B. $\left(\dfrac{c}{b}, 0\right)$

C. $\left(-\dfrac{c}{b}, 0\right)$

D. (0,-c)

Answer:

77. Distance between the points (0,0) $(a \cos\theta, a \sin\theta)$

A. 2

B. a^2

C. a

D. $\dfrac{a^2}{2}$

Answer:

78. If 'C' is the mid point of A(0,0) B(4,8). Then

the co-ordinates of the mid-points B and C is

A. (2,4)

B. (3,6)

C. (1,2)

D. (4,6)

Answer:

79. The slope of the line $y = \dfrac{1}{2}x$ is

A. 0

B. $\dfrac{1}{2}$

C. $-\dfrac{1}{2}$

D. 1

Answer:

▶ **Watch Video Solution**

80. The equation of the X-axis is

A. $y = 0$

B. $x = 0$

C. $x = y$

D. $xy = 0$

Answer:

81. The point of intersection of the lines x= 2 and y = 3 is

A. (2,3)

B. (3,0)

C. (0,2)

D. $\left(\dfrac{4}{3}, 1\right)$

Answer:

82. If the line 3x+4y = k passing through the point (4,2) then k

A. 10

B. -20

C. 20

D. -10

Answer:

83. If the distance between two points (5,2) (3,a) is $\sqrt{8}$ units then a

A. -2

B. 2

C. 8

D. 4

Answer:

84. The ratio in which the Y-axis dividing the joining the points (5,7)(-1,3) is

A. $5:1$

B. 3:7`

C. $2:1$

D. $4:3$

Answer:

85. The point on X-axis

   A. (2,3)

   B. (2,0)

   C. (0,4)

   D. (0,-3)

Answer:

86. The point on Y-axis

A. (0,2)

B. (4,0)

C. (-3,4)

D. (2,-1)

Answer:

87. The slope of the line x=0

A. 0

B. 1

C. ∞

D. -1

Answer:

▶ Watch Video Solution

88. The point (4,-7) in.....quadrant

A. Q_1

B. Q_2

C. Q_3

D. Q_4

Answer:

89. Slope of the line ax+by+c=0 is

A. $-\dfrac{a}{b}$

B. $\dfrac{a}{b}$

C. $-\dfrac{b}{a}$

D. $\dfrac{b}{a}$

Answer:

▶ Watch Video Solution

90. The line y = 5 is

A. Parallel to x-axis

B. Parallel to y-axis

C. Perpendicular to x-axis

D. Perpendicular to y-axis

Answer:

▶ **Watch Video Solution**

91. If the line 2x-3y=k passes through the origin

then the value of k

A. -1

B. 0

C. 1

D. $-\dfrac{1}{2}$

Answer:

▶ **Watch Video Solution**

92. The centriod of the traingle made by the vertices A(-2,3), B(4,1), C(1,2) is

A. (1,2)

B. $\left[\dfrac{3}{2}, 2\right]$

C. (0,0)

D. $\left[\dfrac{7}{3}, 2\right]$

Answer:

▶ **Watch Video Solution**

93. Area of the triangle by the points A(0, 0), B(1, 0) and C(0, 1) is .... sq. units ....

A. 0

B. $\dfrac{1}{2}$

C. 1

D. $\dfrac{1}{4}$

Answer:

▶ **Watch Video Solution**

94. Where do these following points lie (- 4 , 0) , (2 , 0) , (6 , 0) , (- 8,0) on coordi- nate plane ? (AS_3)

A. Q_1

B. x-axis

C. y-axis

D. Q_4

Answer:

▶ **Watch Video Solution**

95. The distance between $(0, 0),(x_1, y_1)$ points is .... units.

A. $\sqrt{x_1^2 + y_1^2}$

B. $\sqrt{x_1 + y_1}$

C. $\sqrt{x^2 + y^2}$

D. $\sqrt{x + y}$

Answer:

▶ **Watch Video Solution**

96. The distance between the points (x_1, y_1) and (x_2, y_2) which are on the line parallel to y-axis is ....

A. $|y_1 - y_2|$ or $|y_2 - y_1|$

B. $|y_2^2 - y_1^2|$ or $|y_1^2 - y_2^2|$

C. $\sqrt{(x_2 - x_1^2) + (y_2 - y_1^2)}$

D. $|x_2 - x_1|$ or $|x_1 - x_2|$

Answer:

97. The mid point of line segment joined by (4, 5) and $(-6, 3)$ is ....

A. (1,4)

B. (-1,4)

C. (1,-4)

D. (-1,-4)

Answer:

▶ **Watch Video Solution**

98. The distance to X-axis from the point (3, -4) is ....

A. 3

B. 4

C. 5

D. 1

Answer:

▶ Watch Video Solution

99. If the mid point of (-4, a) and (2, 8) is (-1, 5) then a = ...

A. -4

B. 2

C. 5

D. 8

Answer:

▶ Watch Video Solution

100. The graph of $y = 5$ is ....

A. Parallel to x-axis

B. Perpendicular to X-axis

C. Parallel to Y-axis

D. Perpendicular to y-axis

Answer:

▶ **Watch Video Solution**

101. The distance between (0,7) and (-7,0) is....

A. $2\sqrt{7}$

B. $7\sqrt{2}$

C. $\sqrt{14}$

D. $+1$

Answer:

▶ **Watch Video Solution**

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102. Slope of Y-axis is .....

A. not defined

B. 0

C. well defined

D. finite

Answer:

▶ **Watch Video Solution**

103. The distance from X-axis to (-4,3) is....units.

A. 2

B. 3

C. -4

D. -1

Answer:

104. The distance from origin to (2, 3) is ....units

A. $\sqrt{6}$

B. $\sqrt{5}$

C. $\sqrt{1}$

D. $\sqrt{13}$

Answer:

105. The distance from Y- axis to (4, 0) is .... units.

A. 4 units

B. $\sqrt{16}$ units

C. 16 units

D. $2\sqrt{2}$ units

Answer:

106. The mid point of $(2, 3)$ and $(- 2, 3)$ is ....

A. (0,3)

B. (-2,0)

C. (3,0)

D. (-3,2)

Answer:

107. The centroid of the triangle formed by (0, 3), (3, 0) and (0, 0) is ....

A. (1,1)

B. (0,3)

C. (3,3)

D. (3,0)

Answer:

108. Slope of the line that passes through the points $P(x_1, y_1)$ and $Q(X_2, y_2)$ and making an angle θ with X-axis is

109. Slope of the line passing through the points (- 1 , 1) and (1 , 1) is ......

A. -1

B. 0

C. 1

D. not defined

Answer:

▶ Watch Video Solution

110. A point on the Y-axis is of form

A. (0,y)

B. (x,0)

C. (x,y)

D. (y,y)

Answer:

111. A point of the X-axis is of the form

A. (0,y)

B. (x,0)

C. (x,y)

D. (x,x)

Answer:

▶ **Watch Video Solution**

112. The distance of the point (- 8 , 3) from the

origin is ....

A. 5

B. 55

C. 73

D. 24

Answer:

 Watch Video Solution

113. The distance of the point (- 4 , 3) from X-axis is ....

A. -4

B. -3

C. 4

D. 3

Answer:

▶ Watch Video Solution

114. The distance of the point (- 8 , - 7) from y-axis is .....

A. 8

B. -7

C. -8

D. 7

Answer:

115. The points (- 3 , 0) , (0 , 5) and (3 , 0) are the vertices of a .....triangle .

A. scalene

B. isosceles

C. equilateral

D. right angled

Answer:

 Watch Video Solution

116. The distance between the points (- 2 , 3)

and (2 , - 3) is ......

A. 0

B. 52

C. $\sqrt{52}$

D. 16

Answer:

▶ **Watch Video Solution**

117. If the distance between the points (4 , y)

and (1 , 0) is 5 then y =

A. 0

B. 4

C. ± 4

D. ± 2

Answer:

▶ **Watch Video Solution**

118. The distance between the points (0 , 7) and (-7 , 0) is …..

A. $\sqrt{14}$

B. 49

C. $2\sqrt{7}$

D. $7\sqrt{2}$

Answer:

119. A circle is draw with origin as centre and passing through (2 , 3) , then its radius is ...

A. 2

B. 3

C. 13

D. $\sqrt{13}$

Answer:

120. The area of the triangle formed by (a , b +

c) , (b , c +a) and (c , a + b) is

A. 2(a+b+c)

B. abc

C. 0

D. a+b+c

Answer:

121. If points (x , 0) , (0 , y) and (1 , 1) are collinear, then $\dfrac{1}{x} + \dfrac{1}{y}$ = ...

A. 1

B. -1

C. 0

D. 2

Answer:

▶ Watch Video Solution

122. The point which divides the line segment joining the points (7, -6) and (3 , 4) internally in the ratio 1 : 2 lies in the ......quadrant .

A. Q_1

B. Q_2

C. Q_3

D. Q_4

Answer:

▶ **Watch Video Solution**

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123. The points (a , 2a) , (3a , 3a) and (3 , 1) are collinear, then k = ...

A. $-\dfrac{1}{4}$

B. $\dfrac{1}{3}$

C. $-\dfrac{2}{3}$

D. $-\dfrac{1}{3}$

Answer:

▶ **Watch Video Solution**

124. A circle drawn with origin as centre passes through $\left(\dfrac{13}{2}, 0\right)$. The point which doesn't lie

in the interior of the circle is ....

A. (-6,3)

B. $\left(5, \dfrac{1}{2} \right)$

C. $\left(2, \dfrac{7}{3} \right)$

D. $\left(-\dfrac{3}{4}, 1 \right)$

Answer:

125. The distance of the point (- 9 , 40) from the origin is .....

A. 9

B. 40

C. 53

D. 41

Answer:

126. If (- 2 , 8) and (6 , - 4) are the end points of the diameter of a circle, then the centre of the circle is .....

A. (3,6)

B. (4,2)

C. (2,2)

D. (-3,2)

Answer:

127. The angle between X-axis and Y-axis is ......

A. 0°

B. 180°

C. 360°

D. 90°

Answer:

▶ Watch Video Solution

128. The midpoint of the line joining of (2 , 3)

and (- 2 , - 3) is .....

A. (0,0)

B. (2,3)

C. $\left(1, 1\frac{1}{2} \right)$

D. $\left(-1, \ -1\frac{1}{2} \right)$

Answer:

129. The slope of line join of (5 , -1) , (0 , 8) is .....

A. $\dfrac{7}{5}$

B. $\dfrac{9}{5}$

C. $-\dfrac{9}{5}$

D. $-\dfrac{5}{9}$

Answer:

▶ **Watch Video Solution**

130. Slope of X-axis is .....

A. 0

B. 1

C. `-1

D. not defined

Answer:

▶ **Watch Video Solution**

131. The centroid of the triangle whose vertices

are (2 , - 3) , (4 , 6) , (- 2 , 8) is

A. $\left(\dfrac{8}{3}, \dfrac{17}{3}\right)$

B. (4,11)

C. (-3,-8)

D. $\left(\dfrac{4}{3}, \dfrac{11}{3}\right)$

Answer:

132. Two vertices of a triangle are (3 , 5) and (- 4 , -5) . If the centroid of the triangle is (4 , 3), find the third vertex.

A. (13,9)

B. (-9,-13)

C. (9,13)

D. (13,-9)

Answer:

133. The ratio in which the point (4 , 8) divide the line segment joining the points (8 , 6) and (0 , 10) is ......

A. $2:1$

B. $1:1$

C. $1:2$

D. $3:1$

Answer:

 Watch Video Solution

134. If (-2 , -1) , (a , 0) , (4 , b) and (1 , 2) are the vertices of a parallelogram then a = ...

A. 3

B. -1

C. 4

D. 1

Answer:

135. $(-2, 8) \in$ ....

A. Q_1

B. Q_4

C. Q_2

D. Q_3

Answer:

▶ **Watch Video Solution**

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136. If A , B , C are collinear then area of

ΔABC = ...

A. 2

B. 1

C. 0

D. none

Answer:

137. Area of triangle formed by (- 4 , 0) ,(0 , 0)

and (0 , 5) is ......sq.units.

A. 12

B. 10

C. 13

D. 9

Answer:

▶ **Watch Video Solution**

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138. The value of p if the distance between (2 ,

3) and (p, 3) is 5 is ......

A. 7

B. 9

C. 12

D. 10

Answer:

▶ **Watch Video Solution**

139. The value of k if the distance between (2 , 8) and (2 , k) is 3 is ......

A. 4.5

B. 10

C. 9

D. 5

Answer:

▶ **Watch Video Solution**

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140. A(0 , - 1) , B(2 , 1) and C(0 , 3) are the vertices of $\triangle ABC$ then median through B has a length ....units.

A. 9.5

B. 10

C. 2

D. 9

Answer:

▶ Watch Video Solution

141. The closed figure formed by the points (-2 , 0) , (2 , 0) , (2 , 2) , (0 , 4) and (-2, -2) is a ......

A. pentagon

B. triangle

C. circle

D. none

Answer:

▶ **Watch Video Solution**

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142. The co-ordinates of the mid points joining

$P(x_1, y_1)$ and $Q(x_2, y_2)$ is....

A. $\left(\dfrac{x_1 + x_2}{2}, \dfrac{y_1 + y_2}{2} \right)$

B. $\left(\dfrac{x_1 - x_2}{2}, \dfrac{y_1 + y_2}{2} \right)$

C. $\left(\dfrac{x_1 + y_1}{2}, 1 \right)$

D. none

Answer:

▶ Watch Video Solution

143. What do you observe ? Justify the point that divides each median in the ratio $2 : 1$ is the centriod of a traingle . (AS_3)

A. $3:1$

B. $1:3$

C. $1:2$

D. $2:1$

Answer:

▶ **Watch Video Solution**

144. If the distance between the points (3 , k) and (4 , 1) is $\sqrt{10}$ then the value of k = ...

A. 8 or 10

B. 4 or -2

C. -1 or 2

D. none

Answer:

▶ **Watch Video Solution**

145. If the points (1 , 2) , (-1, x) and (2 , 3) are collinear then the value of x is .....

A. 9

B. 7

C. 0

D. -1

Answer:

▶ Watch Video Solution

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146. If the centroid of the triangle formed with

(a , b) , (b , c) and (c , a) is O(0 , 0) then

$a^3 + b^3 + c^3 = $ .....

A. a+b+c

B. $\dfrac{a+b+c}{3}$

C. $\dfrac{abc}{3}$

D. 3abc

Answer:

 Watch Video Solution

147. The distance between two points A (cos θ 0) , B (0 , a sin θ) is ....

A. $\dfrac{a}{3}$

B. a

C. a^2

D. $\dfrac{a}{2}$

Answer:

148. Distance of (x , y) from X-axis is ......

A. y

B. $-x$

C. $-y$

D. none

Answer:

▶ **Watch Video Solution**

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149. Distance of (x , y) from Y -axis is .....

A. $-x$

B. y

C. x

D. none

Answer:

▶ **Watch Video Solution**

150. (x , 0) is a point on ......

A. X-axis

B. Y-axis

C. origin

D. none

Answer:

151. (0 , y) is a point on .....

A. (0,0)

B. Y-axis

C. X-axis

D. none

Answer:

152. Distance of (x , y) from origin is ......

A. $\sqrt{x} + \sqrt{y}$

B. $\sqrt{x + y}$

C. $\sqrt{xy}$

D. $\sqrt{x^2 + y^2}$

Answer:

153. If $a < 0$ then $(-a, -a) \in$ ......

A. Q_2

B. Q_1

C. Q_4

D. Q_3

Answer:

154. Slope of the line $y = mx$ is .....

A. y

B. x

C. m

D. none

Answer:

155. Slope of the line joining the points (2a, 3b)

and (a , = b) is ......

A. $-\dfrac{a}{b}$

B. $\dfrac{b}{a}$

C. $\dfrac{b}{4}a$

D. $4\dfrac{b}{a}$

Answer:

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156. Slope of the line joining the points A(-1 .4, - 3.7) and B(-2.4,1.3) is ....

A. -5

B. 5

C. 6

D. 7

Answer:

157. $(3, -5) \in$ ....

A. Q_4

B. Q_3

C. Q_1

D. Q_2

Answer:

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158. The angle between the lines x = 2 and y = 3

is .....

A. $60°$

B. $70°$

C. $90°$

D. $80°$

Answer:

159. Slope of vertical line is ....

    A. 0

    B. -1

    C. 3

    D. not defined

Answer:

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160. Area of triangle formed with (-5,-1), (3,-5) and (5 , 2) is ......sq.units.

A. 28

B. 20

C. 32

D. 16

Answer:

161. If the points (k,k),(2 , 3) and (4 , -1) are collinear then k = ...

A. $-\dfrac{1}{7}$

B. $\dfrac{1}{2}$

C. $\dfrac{3}{7}$

D. $\dfrac{7}{3}$

Answer:

162. $A(2, 0)$, B(1,2), C(-1,6)` లు శీర్షాలుగా గల త్రిభుజ వైశాల్యం

A. 10

B. 12

C. 0

D. 9

Answer:

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163. Identify collinear points .

A. (1,-6)(3,-4),(4,-3)

B. (1,-1)(2,3),(2,0)

C. (5,2),(3,-5),(-5,-1)

D. all

Answer:

164. The area of square formed with the vertices (0, -1) ,(2 , 1) , (0 , 3) and (-2 , 1) taken in order as vertices is .....sq.units.

A. 12

B. 6

C. 8

D. none

Answer:

165. The co-ordinates of centroid of the triangle formed with the vertices (-1,3),(6,-3) and (-3,6) is.....

A. $\left(1, \dfrac{1}{2} \right)$

B. $\left(\dfrac{2}{3}, 2 \right)$

C. $\left(8, -\dfrac{1}{2} \right)$

D. (0,3)

Answer:

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166. A(1 , - 1) , B(0 , 6) and C(-3, 0) then G = ...

A. $\left(\dfrac{8}{9}, \dfrac{1}{7} \right)$

B. $\left(\dfrac{6}{7}, \dfrac{1}{3} \right)$

C. $\left(\dfrac{1}{2}, \dfrac{1}{3} \right)$

D. $\left(-\dfrac{2}{3}, \dfrac{5}{3} \right)$

Answer:

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167. The point of concurrence of medians of a

triangle is called.....

A. centroid

B. orthocentre

C. centre

D. none

Answer:

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168. Mid point of the line joining the points (1 , 1) and (0 , 0) is .....

A. (0,9)

B. $(3, 7)$

C. $\left(\dfrac{1}{2}, \dfrac{1}{2} \right)$

D. $\left(1, \dfrac{1}{2} \right)$

Answer:

169. The radius of the circle whose centre is (3 , 2) and passes through (-5 , 6) is ....units.

A. $2\sqrt{5}$

B. $4\sqrt{7}$

C. $4\sqrt{3}$

D. $4\sqrt{5}$

Answer:

170. Area of parallelogram = ...sq.units.

A. $\dfrac{1}{2}bh$

B. bh

C. b^2h^2

D. none

Answer:

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171. A(4 , 5) , B(7 , 6) then AB = ...units.

A. $\sqrt{10}$

B. 10

C. 8

D. $\sqrt{19}$

Answer:

172. In quadrilateral ABCD,

AB = BC = CD = AD and $AC \neq BD$ then it is a

.....

A. trapezium

B. square

C. parallelogram

D. none

Answer:

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173. A(a , b) and B(-a, - b) then BA = ...units.

A. $2\sqrt{a}$

B. $2\sqrt{a^2 + b^2}$

C. $2\sqrt{b}$

D. $2\sqrt{a^2 + b}$

Answer:

174. If θ is the angle made by a line with x-axis

then slope m = ...

A. $\tan\theta$

B. $\sec\theta$

C. $\cos ec\theta$

D. $no \neq \theta$

Answer:

175. A(4 , 0) , B(8 , 0) then AB = ...units.

A. 6

B. 10

C. 4

D. 12

Answer:

176. Other name for x-coordinate of a point is

....

A. abscissa

B. point

C. ordinate

D. none

Answer:

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177. $(8, 10) \in$ .....

A. Q_2

B. Q_1

C. Q_3

D. none

Answer:

178. Slope of horizontal line is ......

A. 3

B. -1

C. 0

D. none

Answer:

179. $ax + by + c = 0$ represents a ....

    A. straight line

    B. circle

    C. curve

    D. none

Answer:

180. In Heron's formula S = ...

A. $\dfrac{a - b - c}{2}$

B. $\dfrac{a + b - c}{2}$

C. $\dfrac{ab}{2} + c$

D. $\dfrac{a + b + c}{2}$

Answer:

181. Coordinates of origin are ....

A. (a,b)

B. (3,7)

C. (0,0)

D. none

Answer:

182. A(4 , 3) , B(8 , 6) then AB = ...units.

A. 9

B. 5

C. 16

D. 12

Answer:

183. $Q_1 \cap Q_2 = \ldots$

A. ϕ

B. $\{0\}$

C. $\{8,4\}$

D. none

Answer:

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184. The slope of the line $\dfrac{x}{a} + \dfrac{y}{b} = 1$

A. $-\dfrac{b}{a}$

B. $\dfrac{b}{a}$

C. $\dfrac{a}{b}$

D. none

Answer:

185. The midpoint of the line joining the points (1 , 2) and (1 , p) is (1 , -1) then p = ...

A. -31

B. -3

C. -4

D. none

Answer:

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186. The centroid of the triangle formed with the line x + y = 6 with the coordinate axes is .....

A. (4,0)

B. (1,3)

C. (8,1)

D. (2,2)

Answer:

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187. Slope of the line joining the points (2 , 5)

and (k , 3) is 2 then k = ...

A. 4

B.

C. -1

D. none

Answer:

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188. A point on X - axis is ....

A. (9,0)

B. (0,3)

C. (9,3)

D. (3,-1)

Answer:

▶ Watch Video Solution

189. The slope of a line passing through (- 2 , 3) and (4 , a) is $\dfrac{-5}{3}$ then a = ...

A. 1

B. 7

C. -7

D. 2

Answer:

190. If (1 , x) is at $\sqrt{10}$ units from origin then the value of x = ...

A. ± 31

B. ± 3

C. ± 2

D. ± 2

Answer:

191. $A = \left(\dfrac{1}{2}, \dfrac{3}{2} \right), B\left(\dfrac{3}{2}, \dfrac{-1}{2} \right)$ then BA = ...

A. $\sqrt{5}$

B. $\sqrt{6}$

C. $\sqrt{19}$

D. none

Answer:

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192. X and Y axes will intersect at .....

A. (1,1)

B. (2,2)

C. (0,0)

D. (8,5)

Answer:

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193. In $\triangle ABC$, AB =AC =BC then it is

..........triangle .

A. scalene

B. equilateral

C. isosceles

D. none

Answer:

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194. Y axis can be represented by ......

A. x = 0

B. y = 0

C. $y = -\dfrac{1}{2}$

D. all

Answer:

195. y intercept of the line x - 2y + 1 = 0 is ....

A. $-\dfrac{1}{2}$

B. 1

C. -1

D. $\dfrac{1}{2}$

Answer:

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196. equation of X - axis is …….

A. x= 0

B. x= 7

C. x= 1

D. y = 0

Answer:

197. If (p, 2p) , (2p, 3p) and (3 , 1) are collinear

then p = ...

A. $\dfrac{1}{3}$

B. -1

C. $-\dfrac{1}{3}$

D. none

Answer:

198. In $\triangle ABC$, all the sides are diferent then it is called ......triangle .

A. isosceles

B. scalene

C. equilateral

D. none

Answer:

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199. In $\Delta PQR, PQ = QR$ then it is called

.......triangle .

A. isosceles

B. right triangle

C. equilateral

D. none

Answer:

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200. A (1, - 1) , $B\left(2^{1/2}, 0\right)$, C (4 , 1) then area of $\triangle ABC$ = ...sq. units.

A. 2

B. 9

C. 0

D. none

Answer:

201. The point of concurrence of attitudes of a triangle is called its........

A. orthocentre

B. centroid

C. isosceles

D. none

Answer:

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202. Angle made by the line y = x with the positive direction of X-axis is ....

A. $45°$

B. $60°$

C. $90°$

D. $70°$

Answer:

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203. Number of medians of triangle is ....

A. 5

B. 4

C. 7

D. 3

Answer:

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204. Slope of line y = 7 is ......

A. 1

B. 7

C. 0

D. none

Answer:

205. If A (p , q) , B (m , n) and C (p - m , q - n)

are collinear then pn = ...

A. $q^2 m$

B. qm

C. $\dfrac{q}{m}$

D. none

Answer:

206. If 4x + y =1 and 3x - 2y = 9 In the problem

y=....

A. 3

B. 7

C. -3

D. 8

Answer:

207. Area of trapezium = ... Sq.units.

A. ph

B. h(a+b)

C. $\frac{1}{2}h(a+b)$

D. $\frac{1}{2}(a+b)$

Answer:

208. P $(\cos \theta, -\cos \theta)$, Q$(\sin \theta, \sin \theta)$ then PQ = ...

A. $\cos \theta$

B. $\sin^2 \theta$

C. 0

D. none

Answer:

---

209. A(t , 2t) , B(- 2, 6) , C(3 , 1) and $\triangle$ ABC = 5 sq.units then t = ...

   A. 9

   B. 4

   C. $- 9$

   D. 2

Answer:

210. The diagonals of a parallelogram whose vertices are (2 , 3) , (4 , 5) , (4 , 9) and (2 , 7) will intersect at ......

A. (0,0)

B. (5,6)

C. (0,9)

D. (3,6)

Answer:

211. Slope of the line 3x - 2 = 0 is ....

A. 2

B. 3

C. 0

D. not defined

Answer:

212. Each angle of an equilateral triangle is…………

A. $100°$

B. $70°$

C. $60°$

D. $90°$

Answer:

▶

213. A(cot θ 1 ,) , B(0 , 0) then BA = ...

A. 5

B. 4

C. 1

D. none

Answer:

214. Slope of the line joining the points A(0 , 0) , B $\left(\dfrac{1}{2}, \dfrac{1}{2} \right)$ is ....

A. 4

B. 1

C. 3

D. 7

Answer:

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215. $(3, 0), (8, 0), \left(\dfrac{1}{2}, 0 \right)$ ...... Points lie on ......

A. X-axis

B. Y-axis

C. (0,0)

D. none

Answer:

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216. $(x, y) \in Q_4$ then ......

A. x= 0, y = 0

B. xlt0,ygt0

C. xgt0,ygt0

D. none

Answer:

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217. y intercept of the line y = mx + c is ....

A. y

B. m

C. 1

D. none

Answer:

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218. The midpoint of line segment divides it in

ratio

A. $1 : 1$

B. $2 : 1$

C. $1 : 2$

D. $1 : 4$

Answer:

219. Diagonals in a parallelgram

A. equal

B. trisect

C. bisect

D. none

Answer:

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220. The line joining the mid point of one side

of a triangle from opposite vertex in called ......

A. ortho centre

B. median

C. centroid

D. none

Answer:

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221. x intercept of the line x - y + 1 = 0 is ......

A. 1

B. 2

C. 7

D. -1

Answer:

222. In rhombus all sides are ....

A. equal

B. not equal

C. 3 cm

D. 8 cm

Answer:

223. If the point (4 , -p) lie on Y - axis then

$p^2 + 2p - 1 =$ ......

   A. 0

   B. 1

   C. -1

   D. 4

Answer:

224. If the point (a , 5) lies on Y-axis , the value

of a = ...

 A. agt0

 B. alt0

 C. a = 0

 D. none

Answer:

225. If the distance between the points (x_1, y_1) and (x_2, y_2) is $|x_1 - x_2|$ then they are parallel to .....

A. X-axis

B. XY-axis

C. XY-axis

D. Y-axis

Answer:

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226. Show that the points (-2,-1),(1,0),(4,3) and (1,2) are vertices of a parallelogram.

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227. Find the ratio in which the line segment joining the points (-1,12) and (8,-6) is divided by (1,8).

228. Find the area of the quadrilateral whose vertices taken inorder are (- 4 , - 2) , (- 3 , - 5) , (3 , - 2) and (2 , 3) (AS_1)

229. If A(3,4),B(6,5) and C(8,8) are the three vertices of a parallelogram ABCD. Find the co-ordinates of the fourth vertex D.

230. P (2 , 2), Q (- 4, 4) and R (5 , - 8) are the vertices of a $\triangle PQR$, then median from 'R' is .....

A. $\sqrt{147}$

B. $\sqrt{157}$

C. $4\sqrt{17}$

D. $2\sqrt{13}$

Answer:

231. The distance of a point (α, β) from the origin is ....

A. $\alpha + \beta$

B. $\alpha^2 + \beta^2$

C. $\sqrt{\alpha^2 + \beta^2}$

D. $\sqrt{\alpha^2 - \beta^2}$

Answer:

232. The coordinates of the point which divides the line joining (x_1, y_1) and (x_2, y_2)

A. $\left(\dfrac{mx_2 + nx_1}{m + n}, \dfrac{my_2 + ny_1}{m + n} \right)$

B. $\left(0, \dfrac{m}{n} \right)$

C. $\left(\dfrac{mx_2}{m + n}, \dfrac{ny_1}{m + n} \right)$

D. $\left(\dfrac{mx_2 + nx_1}{m - n}, \dfrac{my_2 + ny_1}{m - n} \right)$

Answer:

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233. Coordinate geometry was introduced by ....

A. Rene Descartes

B. John Ven

C. Cayley

D. none

Answer:

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234. Heron's formula to calculate area of triangle is .....

A. $\sqrt{S(S-a)(S-b)}$

B. $\sqrt{S(S-a)(S-b)(S-c)}$

C. $\sqrt{S(S-a)(S-b)(S+c)}$

D. none

Answer:

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235. If AC = AB + BC then the points A , B , C are

....

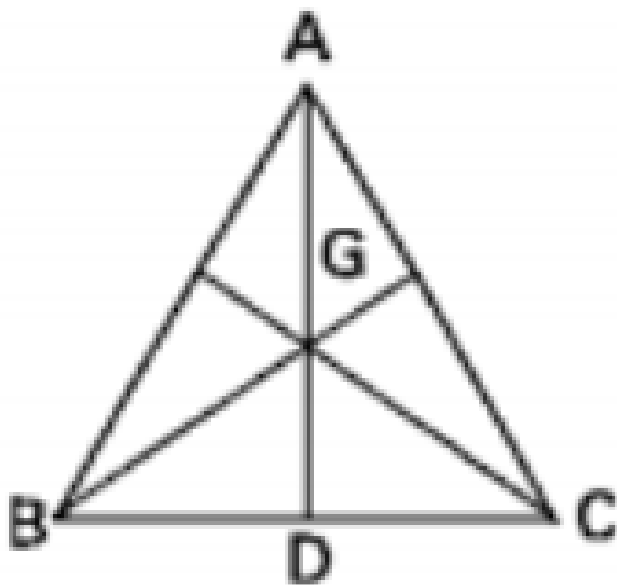A. non collinear

B. collinear

C. can't be determined

D. none

Answer:

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236. In the below figure G is the centroid then
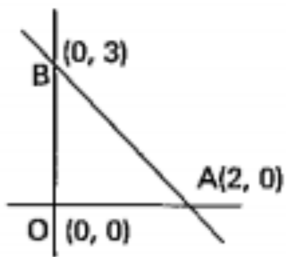
AG:GD=....

A. $1:4$

B. $2:3$

C. $1:1$

D. $2 : 1$

Answer:

237. The area of below triangle is....sq.units.

A. 3

B. 8

C. 4
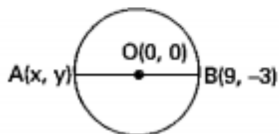
D. 6

Answer:

> ▶ **Watch Video Solution**

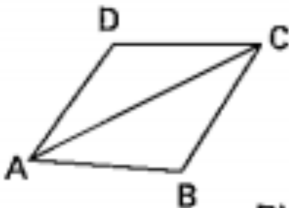**238.** In the below figure x=......

A. 1

B. -7

C. 3

D. -9

Answer:

239. The area of below parallelogram is....

$\triangle$ ABC=5 sq.units.

A. 4

B. 3

C. 10

D. 9

Answer:

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240. AOBC is a rectangle whose three vertices are A(4 , 0) , B (0 , 3) and O(0 , 0) , then its diagonal is .....

A. 4

B. 3

C. 5

D. 7

Answer:

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241. The perimetre of a triangle whose vertices

are A(12 , 0) , O(0 , 0) and B(0 , 5) is ……

A. 13

B. 30

C. 34

D. 60

Answer:

242. The distance of a point (0,3) from the origin.

243. The distance between (0,3) from (0,0)

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244. Find the distance between (4,5)(5,6)

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245. y intercept 4 the line y = mx+c is

246. In rhombus all sides are ....