



MATHS

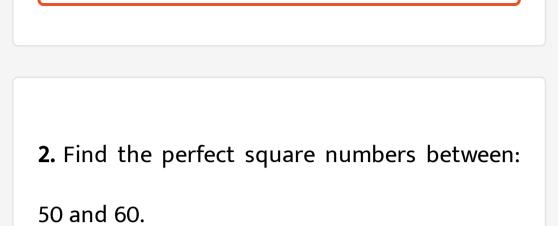
BOOKS - MBD

SQUARES AND SQUARE ROOTS.



1. Find the perfect square numbers between:

30 and 40.



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3. The following numbers are obviously not

perfect squares. Give reason : 1057

perfect squares. Give reason : 23453

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5. The following numbers are obviously not

perfect squares. Give reason : 7928

perfect squares. Give reason : 222222

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7. Can we say wether the following numbers

are perfect squares ?How do we know?

1069

8. Can we say wether the following numbers

are perfect squares ?How do we know?

2061



9. Write five numbers which you can decide by

looking at their one's digit that they are not

square numbers.



10. Write five numbers which you cannot decide just by looking at their unit's digit(or one's place) whether they are square numbers or not.



11. $(123)^2, (77)^2, (82)^2, (161)^2, (109)^2$. Which

would end with digit 1?

12. Which of the following numbers would have digit 6 at unit place ? 19^{2} Watch Video Solution 13. Will the following number would have digit 6 at unit place ?

 24^2

14. Which of the following numbers would have digit 6 at unit place ? 26^2



15. Which of the following numbers would have digit 6 at unit place ?

 36^2

16. Which of the following numbers would have digit 6 at unit place ? 34^2



17. What will be the "one's digit" in the square

of the following numbers ?

1234

18. What will be the "one's digit" in the square

of the following numbers ?

26387

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19. What will be the "one's digit" in the square

of the following numbers ?

52698

20. What will be the "one's digit" in the square

of the following numbers ?

99880



21. What will be the "one's digit" in the square

of the following numbers ?

21222

22. What will be the "one's digit" in the square

of the following numbers ?

9106



23. The square of which of the following would

be an odd number/an even number?Why?

727

24. The square of which of the following would

be an odd number/an even number?Why?

158

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25. The square of which of the following would

be an odd number/an even number?Why?

269

26. The square of which of the following would

be an odd number/an even number?Why?

1980



27. What will be the number of zeroes in the

square of the following numbers?

60

28. What will be the number of zeroes in the

square of the following numbers?

400



29. How many natural numbers lies between 9^2 and 10^2 ?

30. How many non-square numbers lie between the following pairs of numbers. $(100)^2$ and $(101)^2$.



31. How many non-square numbers lie between

the following pairs of numbers.

 $\left(90
ight)^2$ and $\left(91
ight)^2$

32. How many non-square numbers lie between the following pairs of numbers.

 $\left(1000
ight)^2$ and $\left(1001
ight)^2$.

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33. Find whether each of the following numbers is a perfect square or not.

121

34. Find whether each of the following numbers is a perfect square or not. 55 Watch Video Solution 35. Find whether each of the following numbers is a perfect square or not. 81

36. Find whether each of the following numbers is a perfect square or not.

94



37. Find whether each of the following numbers is a perfect square or not.

69

38. Express the following as the sum of two

consecutive integers.

`(21)^2

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39. Express the following as the sum of two consecutive integers.

 $(13)^2$.

40. Express the following as the sum of two

consecutive integers.

 $(11)^2$.

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41. Express the following as the sum of two consecutive integers.

 $(19)^2$.

42. Do you think the reverse is also true, i.e, is the sum of any two consecutive positive integers a perfect square of a number ?Give examle to support your answer.

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43. Write the square making use of above

pattern:

111111^2.



44. Write the square making use of above pattern:

 1111111^2 .



45. Can you find the square of the following

numbers using the above pattern:

 6666667^2 .

46. Can you find the square of the following

numbers using the above pattern:

 6666667^2 .



47. What will be the unit digit of the squares

of the following numbers : 81



of the following numbers : 272

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49. What will be the unit digit of the squares

of the following numbers : 799

of the following numbers : 3853

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51. What will be the unit digit of the squares of

the following numbers : 1234

of the following numbers : 26387

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53. What will be the unit digit of the squares

of the following numbers : 52698

of the following numbers : 99880

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55. What will be the unit digit of the squares

of the following numbers : 12796

of the following numbers : 55555

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57. The following numbers are obviously not

perfect squares. Give reason : 1057

perfect squares. Give reason : 23453

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59. The following numbers are obviously not

perfect squares. Give reason : 7928

perfect squares. Give reason : 222222

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61. The following numbers are obviously not

perfect squares. Give reason : 64000

perfect squares. Give reason : 89722

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63. The following numbers are obviously not

perfect squares. Give reason : 222000

perfect squares. Give reason : 505050

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65. The squares of which of the following would be odd numbers : 431

66. The squares of which of the following would be odd numbers : 2826
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67. The squares of which of the following would be odd numbers : 7779

68. The squares of which of the following would be odd numbers : 82004
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69. Observe the following pattern and find the missing digits.

 $11^2 = 121.$

70. Observe the following pattern and find the

missing digits.

 $10001^2 = 1.....1$



71. Observe the following pattern and find the missing digits. $10001^2 = 1.....1$

72. Observe the following pattern and find the

missing digits.

 $10001^2 = 1.....1$

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73. Observe the following pattern and find the

missing digits.

 $10000001 = \dots$

74. Observe the following pattern and find the

missing digits.

 $11^2 = 121.$

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75. Observe the following pattern and find the missing digits.

 $11^2 = 121.$

76. Observe the following pattern and supply

the missing numbers:

 $10101^2 = 102030201.$



77. Observe the following pattern and supply

the missing numbers:

 $\dots ^{2} = 10203040504030201.$

78. Using the given pattern,find the missing numbers.

$$1^2 + 2^2 + 2^2 = 3^2$$

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79. Using the given pattern,find the missing numbers.

$$2^2 + 3^2 + 6^2 = 7^2.$$

80. Using the given pattern,find the missing numbers.

$$3^2 + 4^2 + 12^2 = 13^2$$
.

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81. Using the given pattern,find the missing numbers.

 $4^2 + 5^2 + ...^2 = 21^2$.

82. Using the given pattern,find the missing numbers. $5^2 + ...^2 + 30^2 = ...^2$. Watch Video Solution

83. Using the given pattern,find the missing numbers.

 $6^2 + 7^2 + \dots^2 = \dots^2$.

84. Without adding ,find the sum :

1+3+5+7+9.

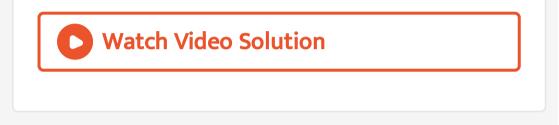


85. Without adding ,find the sum :

1+3+5+7+9+11+13+15+17+19.

86. Without adding ,find the sum :

1+3+5+7+9+11+13+15+17+19+21+23.



87. Express 49 as the sum of 7 odd numbers.

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88. Express 121 as the sum of 11 odd numbers.

89. How many numbers lie between squares of

the following numbers: 12 and 13



90. How many numbers lie between squares of

the following numbers: 25 and 26



91. How many numbers lie between squares of

the following numbers: 99 and 100



92. Find the squares of the following numbers

15.



93. Find the squares of the following numbers

containing 5 in unit's place.

95



94. Find the squares of the following numbers

containing 5 in unit's place.

105

95. Find the saquares of the following numbers containing 5 in unit's place.205



96. Find the square of the following numbers :

32



97. Find the square of the following numbers :

35



98. Find the square of the following numbers :

86



99. Find the square of the following numbers :

93



100. Find the square of the following numbers

: 71



101. Find the square of the following numbers :

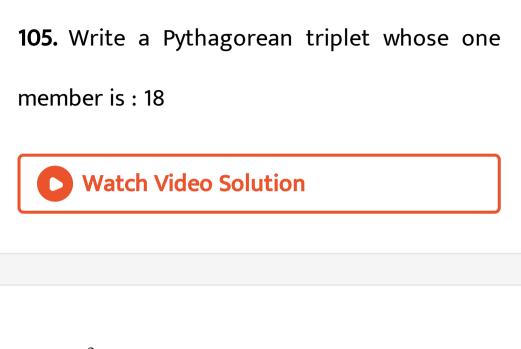
46



102. Write a Pythagorean triplet whose one member is : 6

103. Write a Pythagorean triplet whose one member is : 14
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104. Write a Pythagorean triplet whose one member is : 16



106. $11^2 = 121$. What is the square root of 121.

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107. $14^2 = 196$. What is the square root of 196.

108. $(-1)^2 = 1$. Is -1 a square root of 1 ?.

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109. $(-2)^2 = 4$.ls -2,a square root of 4?

Watch Video Solution

110. $(-9)^2 = 81$. Is -9 a square root of 81?

111. By repeater subtracion of odd numbers from 1,find whether the following numbers are perfect squares or not?If the number is a perfect squar,then,find its square root.

121



112. By repeated subtraction of odd numbers from 1,find whether the following numbers are

perfect squares or not?If the number is a

perfect squar, then, find its square root.

49

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113. By repeater subtracion of odd numbers from 1,find whether the following numbers are perfect squares or not?If the number is a perfect squar,then,find its square root.

90

114. What could be the 'one's ' digits of the square root of each of the following numbers?

9801

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115. What could be the 'one's ' digits of the

square root of each of the following numbers?

99856

116. What could be the 'one's ' digits of the square root of each of the following numbers? 998001



117. What could be the 'one's ' digits of the square root of each of the following numbers?

657666025



118. Without doing any calculation, find the numbers which are surely not perfect squares:153



119. Without doing any calculation, find the numbers which are surely not perfect squares:

257

120. Without doing any calculation, find the numbers which are surely not perfect squares:
408
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121. Without doing any calculation, find the numbers which are surely not perfect squares:

441



123. Find the square roots of the following numbers by the Prime Factorisation Method:



125. Find the square roots of the following numbers by the Prime Factorisation Method: 4096

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127. Find the square roots of the following numbers by the Prime Factorisation Method:9604



129. Find the square roots of the following numbers by the Prime Factorisation Method: 9216





131. Find the square roots of the following numbers by the Prime Factorisation Method:8100

132. For each of the following numbers, find the smallest whole number by which it should be multiplied so as to get a perfect square number. Also find the square root of the square number so obtained: 252

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133. For each of the following numbers, find the smallest whole number by which it should be multiplied so as to get a perfect square number. Also find the square root of the

square number so obtained: 180



134. For each of the following numbers, find the smallest whole number by which it should be multiplied so as to get a perfect square number. Also find the square root of the square number so obtained: 1008



135. For each of the following numbers, find the smallest whole number by which it should be multiplied so as to get a perfect square number. Also find the square root of the square number so obtained: 2028

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136. For each of the following numbers, find the smallest whole number by which it should be multiplied so as to get a perfect square number. Also find the square root of the

square number so obtained: 1458



137. For each of the following numbers, find the smallest whole number by which it should be multiplied so as to get a perfect square number. Also find the square root of the square number so obtained: 768



138. For each of the following numbers, find the smallest whole number by which it should be divided so as to get a perfect square. Also find the square root of the square number so obtained: 252

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139. For each of the following numbers, find the smallest whole number by which it should be divided so as to get a perfect square. Also

find the square root of the square number so

obtained: 2925



140. For each of the following numbers, find the smallest whole number by which it should be divided so as to get a perfect square. Also find the square root of the square number so obtained: 396



141. For each of the following numbers, find the smallest whole number by which it should be divided so as to get a perfect square. Also find the square root of the square number so obtained: 2645

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142. For each of the following numbers, find the smallest whole number by which it should be divided so as to get a perfect square. Also

find the square root of the square number so

obtained: 2800



143. For each of the following numbers, find the smallest whole number by which it should be divided so as to get a perfect square. Also find the square root of the square number so obtained: 1620



144. The students of Class VIII of a school donated Rs 2401 in all, for Prime Minister's National Relief Fund. Each student donated as many rupees as the number of students in the class. Find the number of students in the class.

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145. 2025 plants are to be planted in a garden in such a way that each row contains as many plants as the number of rows. Find the number of rows and the number of plants in

each row.



146. Find the smallest square number that is

divisible by each of the numbers 4, 9 and 10.

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147. Find the smallest square number that is divisible by each of the numbers 8, 15 and 20.



148. Can we say that if a perfect square is of
$$n$$
 digits, then its square root will have $\frac{n}{2}$ digits if n is even or $\left(\frac{n+1}{2}\right)$ if n is odd ?



149. Without calculatig square roots, find the number of digits in the square root of the

following numbers.

25600.



150. Without calculatig square roots,find the number of digits in the square root of the following numbers.

10000000

151. Without calculatig square roots,find the number of digits in the square root of the following numbers.

36864

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152. Estimate the value of the following to the

nearest whole number :

squr 80.



153. Estimate the value of the following to the

nearest whole number :

squr1000



154. Estimate the value of the following to the

nearest whole number :

 $\sqrt{350}$

155. Estimate the value of the following to the

nearest whole number :

 $\sqrt{500}$.



156. Find the square root of each of the following numbers by Division method: 2304

157. Find the square root of each of the following numbers by Division method: 4489
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158. Find the square root of each of the

following numbers by Division method: 3481

159. Find the square root of each of the following numbers by Division method: 529
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160. Find the square root of each of the

following numbers by Division method: 3249

161. Find the square root of each of the following numbers by Division method: 1369
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162. Find the square root of each of the

following numbers by Division method: 5776

163. Find the square root of each of the following numbers by Division method: 900Watch Video Solution

164. Find the square root of each of the

following numbers by Division method: 576

165. Find the square root of each of the following numbers by Division method: 1024
Watch Video Solution

166. Find the square root of each of the

following numbers by Division method: 3136

167. Find the square root of each of the following numbers by Division method: 900
Watch Video Solution

168. Find the number of digits in the square root of each of the following numbers (without any calculation): 64

169. Find the number of digits in the square root of each of the following numbers (without any calculation): 144



170. Find the number of digits in the square root of each of the following numbers

(without any calculation): 4489

171. Find the number of digits in the square root of each of the following numbers (without any calculation): 27225

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172. Find the number of digits in the square root of each of the following numbers (without any calculation): 390625

173. Find the square root of the following

decimal numbers: 2.56

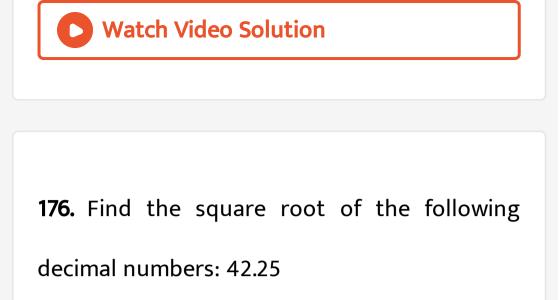


174. Find the square root of the following

decimal numbers: 7.29

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175. Find the square root of the following decimal numbers: 51.84



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177. Find the square root of the following

decimal numbers: 31.36

178. Find the least number which must be subtracted from each of the following numbers so as to get a perfect square. Also find the square root of the perfect square so obtained: 402

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179. Find the least number which must be subtracted from each of the following numbers so as to get a perfect square. Also

find the square root of the perfect square so

obtained: 1989



180. Find the least number which must be subtracted from each of the following numbers so as to get a perfect square. Also find the square root of the perfect square so obtained: 3250



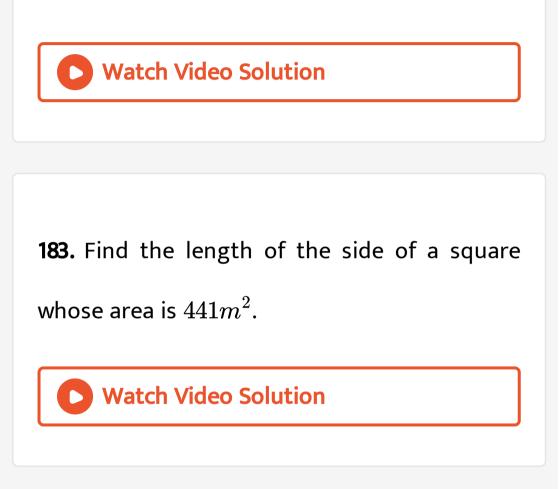
181. Find the least number which must be subtracted from each of the following numbers so as to get a perfect square. Also find the square root of the perfect square so obtained: 825

Watch Video Solution

182. Find the least number which must be subtracted from each of the following numbers so as to get a perfect square. Also

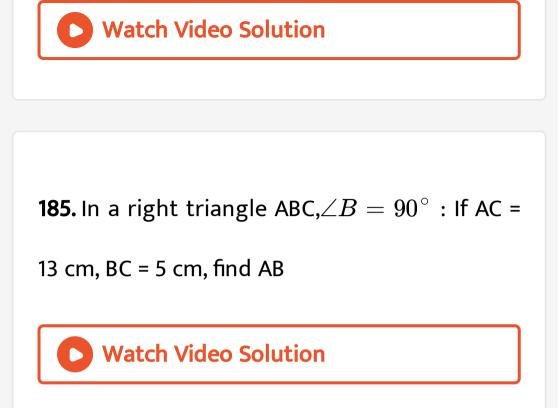
find the square root of the perfect square so

obtained: 4000



184. In a right triangle ABC, $\angle B=90^\circ$: If AB =

6 cm, BC = 8 cm, find AC



186. A gardener has 1000 plants. He wants to plant these in such a way that the number of rows and the number of columns remain

same. Find the minimum number of plants he

needs more for this.



187. There are 500 children in a school. For a P.T. drill they have to stand in such a manner that the number of rows is equal to number of columns. How many children would be left out in this arrangement.



188. Which is the perfec square number in the

following numbers?

A. 47

B. 43

C. 49

D. 45

Answer:

189. Which is not perfect square number in the

following numbers?

A. 81

B. 55

C. 64

D. 68

Answer:

190. Which square number lies between 80
and 90 ?
A. 81
B. 85
C. 88

D. 89

Answer:



191. Which square number lies between 95 and

105.

A. 96

B. 100

C. 102

D. 104

Answer:

192. Which of the following is not a perfect

square.

A. 625

B. 64

C. 150

D. 144

Answer:



193. Which number has an odd square:

A. 16

B. 9

C. 8

D. 12

Answer:

194. How many digits are there in the square

root of number 1234321.

A. 3

B. 5

C. 4

D. 16

Answer:

195. Which number has 121 as its square:

A. 9

B. 5

C. 13

D. 11

Answer:



196. The square root of 0.04 will be :

A. 2.2

B. 0.02

C. 2

D. 0.2.

Answer:

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197. The value of $(0.03)^2$ will be:

A. 0.09

B. 0.006

C. 0.0009

D. 0.009.

Answer:

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198. The tens digits of the square root of 2304

will be :

B. 3

C. 4

D. 5

Answer:

Watch Video Solution

199. The units digit of the square root of 1296 will be:

B.4

C. 6

D. 8

Answer:

Watch Video Solution

200. 2025 plants are to be planted in a garden in such a way that each row contains as many plants as the number of rows. Find the number of rows and the number of plants in

each row.

A. 25

B.45

C. 35

D. 55

Answer:



1. What will be the unit digit of the squares of the following numbers:

49



2. What will be the unit digit of the squares of

the following numbers:

598

the following numbers:

725



4. What will be the unit digit of the squares of

the following numbers:

2651

the following numbers:

1324



6. What will be the unit digit of the squares of

the following numbers:

34393

the following numbers:

25802

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8. What will be the unit digit of the squares of

the following numbers:

52740

the following numbers:

12836



10. What will be the unit digit of the squares

of the following numbers:

36257

perfect squares.Give reason.

512



12. The following numbers are obviously not

perfect squares.Give reason.

6128

perfect squares.Give reason.

31283

Watch Video Solution

14. The following numbers are obviously not perfect squares.Give reason.

21432

perfect squares.Give reason.

87687



16. The following numbers are obviously not

perfect squares.Give reason.

95430

perfect squares.Give reason.

33453



18. The squares of which of the following would be odd numbers?

333

19. The squares of which of the following

would be odd numbers?

2665

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20. The squares of which of the following would be odd numbers?

24877

21. The squares of which of the following would be odd numbers?

21976



22. The squares of which of the following would be odd numbers?

7321

23. Observe the following pattern and find the missing digits: $1^2 = 1$ $11^2 = 121$ $111^2 = 12321$ $1111^2 = 1234321$ $111111^2 = \dots$

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24. Observe the following pattern and find the missing digits:

 $1^2 = 1$

 $11^2 = 121$

 $111^2 = 12321$

 $1111^2 = 1234321$

 $11111111^2 = \dots \dots$

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25. Observe the following pattern and find the missing digits: $1^2 = 1$

 $11^2 = 121$

 $111^2 = 12321$

 $1111^2 = 1234321$

 $11111111^2 = \dots \dots$

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26. By observe pattern find the missing digits:

27. Observe the following pattern and find the

missing digits:

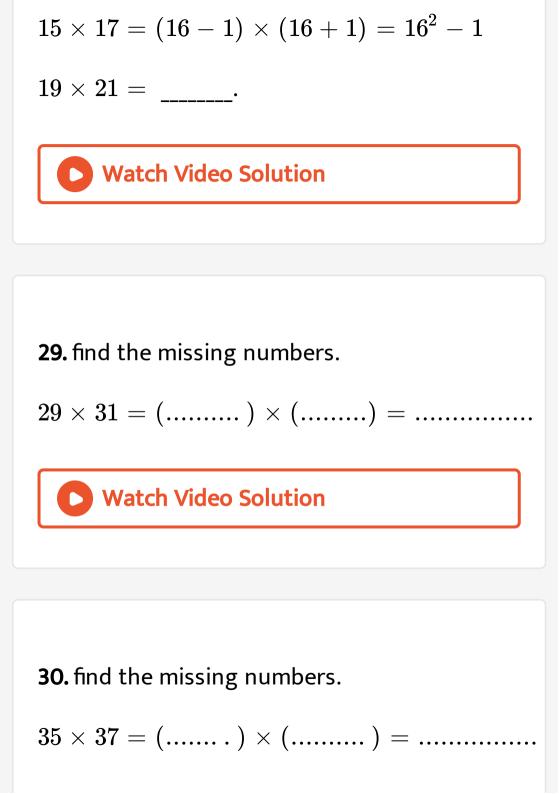
 $11111^2 = 1...3...5...3...1.$

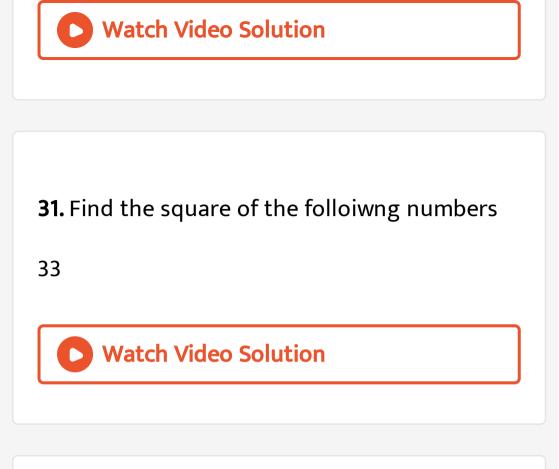
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28. Using the given pattern,find the missing numbers.

 $11 imes 13 = (12-1) imes (12+1) = 12^2 - 1$

 $13 imes 15 = (14-1) imes (14+1) = 14^2 - 1$





32. Find the square of the folloiwng numbers

36

33. Find the square of the folloiwng numbers

85



34. Find the square of the folloiwng numbers



35. Find the square of the following numbers

74



36. Find the square of the following numbers



37. Write a Pythagorean triplet whose smallest

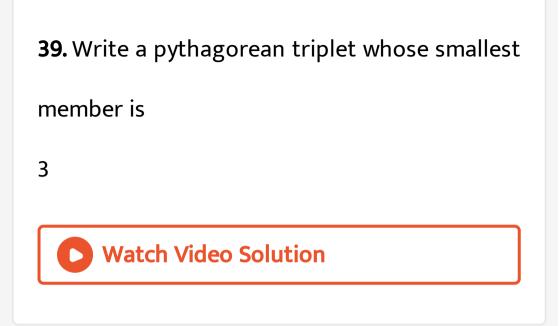
member is 8.

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38. Write a pythagorean triplet whose smallest

member is

12



40. What could be the possible one's digits of the square root of each of the following numbers ?

41. What could be the possible one's digits of the square root of each of the following numbers ?

85849

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42. What could be the possible one's digits of the square root of each of the following numbers ?



43. What could be the possible one's digits of the square root of each of the following numbers ?

1065024

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44. Without doing any calclation,find the numbers which are surely not perfect squares.



45. Without doing any calclation,find the numbers which are surely not perfect squares.

- - -

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46. Without doing any calclation,find the numbers which are surely not perfect squares.



47. Without doing any calclation,find the numbers which are surely not perfect squares.

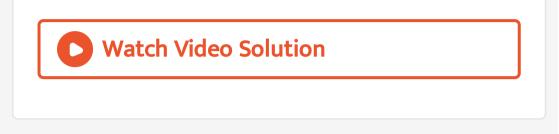
625

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48. Find the square root of each of the following by the method of repeated

subtraction:

81



49. Find the square root of each of the following by the method of repeated subtraction:

121

50. Find the square root of each of the following by the method of repeated subtraction:

144

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51. Find the square root of each of the following by the method of repeated subtraction:



52. Find the square roots of the following numbers by the Prime Factorisation method

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53. Find the square roots of the following numbers by the Prime Factorisation method 576

54. Find the square roots of the following numbers by the Prime Factorisation method

1024

Watch Video Solution

55. Find the square roots of the following numbers by the Prime Factorisation method 7056



56. Find the square roots of the following numbers by the Prime Factorisation method 8281

Vatch Video Solution

57. For each of the following numbers, find the smallest whole number by which it should be multiplied so as to get a perfect square number. Also find the square root of the

square number so obtained.

200



58. For each of the following numbers, find the smallest whole number by which it should be multiplied so as to get a perfect square number. Also find the square root of the square number so obtained.

59. For each of the following numbers,find the smallest whole number by which it should be multiplied so as to get a perfect square number. Also find the square root of the square number so obtained.

5040

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60. For each of the following numbers, find the smallest whole number by which it should be

multiplied so as to get a perfect square number.Also find the square root of the square number so obtained.

2352



61. For each of the number, find the smallest whole number by which it should be divided so as to get a perfect square. Also find the square root of the square root of the square

number so obtained.

242



62. For each of the number,find the smallest whole number by which it should be divided so as to get a perfect square.Also find the square root of the square root of the square number so obtained.

63. For each of the number,find the smallest whole number by which it should be divided so as to get a perfect square.Also find the square root of the square root of the square number so obtained.

4032

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64. For each of the number,find the smallest whole number by which it should be divided

so as to get a perfect square.Also find the square root of the square root of the square root of the square number so obtained.

9408



65. A school collected Rs.2601 as fees from its

students.If each student paid as many paise as

there were students in the school, how many

students were there in the school?



66. 5929 students are sitting in an auditorium in such a manner that there are as many as students in a row as there are rows in the auditorium. How many rows are there in the auditorium?



67. Find the smallest square number which is

divisible by each of the numbers 6, 9 and 15.

68. Find the square root of each of the following numbers by Division method :

8281

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69. Find the square root of each of the following numbers by Division method :

531441

70. Find the square root of each of the following numbers by Division method : 363609

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71. Find the square root of each of the following numbers by Division method :

72. Find the square root of each of the following numbers by Division method :

21224449



73. Find the number of digits in the square root of each of the following numbers (without any calculation) :

74. Find the number of digits in the square root of each of the following numbers (without any calculation) :

256



75. Find the number of digits in the square root of each of the following numbers

(without any calculation) :

4624



76. Find the number of digits in the square root of each of the following numbers (without any calculation) :

15129

77. Find the number of digits in the square root of each of the following numbers (without any calculation) :

262144

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78. Find the least numbers which must be subtracted from each of the following numbers so as to get a perfect square. Also find the square root of the perfect square so

obtained.

2837



79. Find the least numbers which must be subtracted from each of the following numbers so as to get a perfect square. Also find the square root of the perfect square so obtained.

80. Find the least numbers which must be subtracted from each of the following numbers so as to get a perfect square. Also find the square root of the perfect square so obtained.

13934

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81. Find the least numbers which must be subtracted from each of the following

numbers so as to get a perfect square.Also

find the square root of the perfect square so

obtained.

367240



82. Find the least number which must be added to the following number so as to get a perfect square. Also find the square root of the perfect square so obtained.



83. Find the least number which must be added to each of the following numbers. So as to get a perfect square. Also find the square root of the perfect square so obtained.

84. Find the least number which must be added to each of the following numbers.So as

to get a perfect square. Also find the square

root of the perfect square so obtained.

35324

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85. Find the least number which must be added to the following number so as to get a perfect square. Also find the square root of the perfect square so obtained.



86. Find the length of the side of a square

whose area is 2304 m^2 .

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87. In a right triangle ABC , $\angle B = 90^{\circ}$.

If AB = 3 cm, BC = 4 cm, find AC.

88. In a right triangle ABC , $\angle B = 90^{\circ}$.

If AC = 17 cm, BC = 8 cm, find AB.

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89. A gardener has 1300 plants.He wants to plant these in such a way that the number of rows and the number of columns remain same .Find the minimum number of plants he needs more for this.



90. There are 2401 students in a school. P.T. teacher wants them to stand in rows and columns such that the number of rows is equal to the number of columns. Find the number of rows.