6. Squares and Square Roots

Q 1 Find the square root of 729.

Mark (1)

Q 2 Fill in the blank using the given pattern.

$7^2 = 49$

$67^2 = 4489$

$667^2 = 444889$

$6667^2 =$ _____

Mark (1)

Q 3 Without adding find the sum of $1 + 3 + 5 + 7 + 9 + 11 + 13 + 15 + 17$.

Mark (1)

Q 4 Express 19^2 as sum of two consecutive integers

Mark (1)

Q 5 How many numbers lie between squares of 99 and 100?

Mark (1)

Q 6 Find the square of 35 (without actual multiplication).

Mark (1)

Q 7 Fill in the blank:

$$\sqrt{28} = 2 \times \square$$

Mark (1)

Q 8 Find the square root of 1764.

Mark (1)

Q 9 Find the number of digits in the square root of 390625.

Mark (1)

Q 10 Find the square root of 1296.

Marks (2)

Q 11 Find the square root of 3136 by division method.

Marks (2)

Q 12 The area of a square plot is 4489 m². Find the side of the square plot.

Marks (2)

Q 13 Find the square root of 7.29.

Marks (2)

Q 14 Find the greatest 4-digit number which is a perfect square.
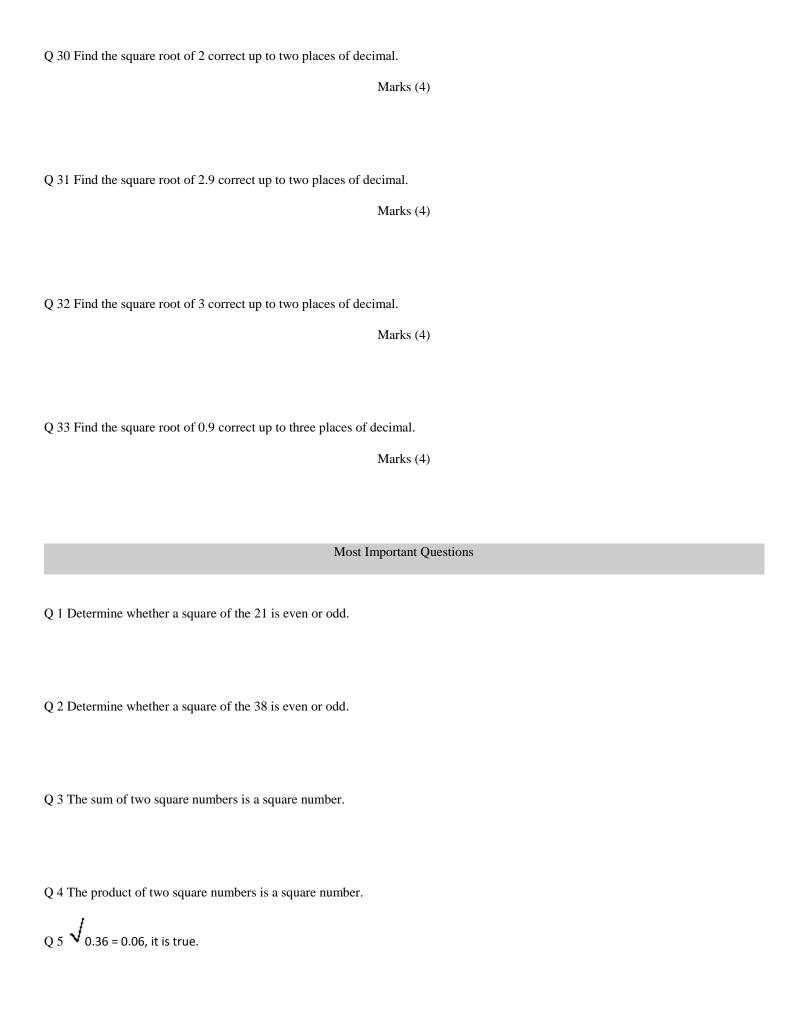
Marks (2)

Q 15 Find the side of a square whose area is 1024 m^2.

Marks (2)

Q 16 Find the value of x that makes the following statement correct.

$$\sqrt{8x} \times \sqrt{2x} = 144$$

Marks (2)

Q 17 Find 37^2 using the identity $(a + b)^2 = a^2 + 2ab + b^2$.

Marks (2)

Q 18 Find the square root of $\dfrac{225}{3136}$

Marks (2)

Q 19 Find the square root of 31.36.

Marks (2)

Q 20 Find the square root of 8100.

Marks (2)

Q 21 Find the square root of 36 by successive subtraction.

Marks (2)

Q 22 Find the smallest square number which is divisible by each of the numbers 4, 9 and 10.

Marks (3)

Q 23 2025 students are made to stand in a field in such a way that each row contains as many students as the number of rows. Find the number of rows and the number of students in each row.

Marks (3)

Q 24 Find the square root of 2 correct to two places of decimal.

Marks (3)

Q 25 Find the square root of 363609.

Marks (3)

Q 26 Find the least number that must be added to 893304 to obtain a perfect square.

Marks (3)

Q 27 A society collected Rs 2401. Each member collected as many rupees as there were members. How many members were there and how much did each contribute?

Marks (4)

Q 28 Find the square root of 11.666667 or 35/3 correct up to two places of decimal.

Marks (4)

Q 29 Find the square root of 2.9 correct up to two places of decimal.

Marks (4)

Q 30 Find the square root of 2 correct up to two places of decimal.

Marks (4)

Q 31 Find the square root of 2.9 correct up to two places of decimal.

Marks (4)

Q 32 Find the square root of 3 correct up to two places of decimal.

Marks (4)

Q 33 Find the square root of 0.9 correct up to three places of decimal.

Marks (4)

<table>
<tr><td>Most Important Questions</td></tr>
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Q 1 Determine whether a square of the 21 is even or odd.

Q 2 Determine whether a square of the 38 is even or odd.

Q 3 The sum of two square numbers is a square number.

Q 4 The product of two square numbers is a square number.

Q 5 $\sqrt{0.36} = 0.06$, it is true.

Q 6 Why the number 1053 is not perfect squares?

Q 7 What will be the unit digit in the square of 23?

Q 8 Determine whether the square of the 213 is even or odd.

Q 9 If $115^2 = 11 \times (11 + 1)$ hundred + 25 = 13225, then the value of 205^2 is
(a)   202025   (b)   40225   (c)   42025   (d)   42205

Q 10 Find the square of 405 using the identity $(a + b)^2 = a^2 + 2ab + b^2$.

Q 11 Find the square of 395 using the identity $(a - b)^2 = a^2 - 2ab + b^2$.

Q 12 The smallest natural number which when added to the difference of squares of 17 and 13 gives a perfect square is
(a)   1   (b)   5   (c)   11   (d)   24

Q 13 If a square number ends in 6, the preceding figure is
(a)   An even number   (b)   an odd number
(c)   A prime   (d)   a composite number

Q 14 Why 7928 is not perfect squares?

Q 15 What will be the unit digit of the squares of the 3853?

Q 16 Find the value of $\sqrt{156.25}$ x $\sqrt{1.5625}$.

Q 17 A decimal fraction is multiplied by itself. If the product is 251953.8025, find the fraction.

Q 18 Find the square root of $\sqrt{2}$ correct to three places of decimals.

Q 19 Find the square root of 121 by the method of repeated subtraction.

Q 20 Using the division method, find the square root of 363609.

Q 21 A General wishing to arrange his men, who were 335250 in number in the form of a square that were 9 men left over. How many were there in each row?

Q 22 Area of square field is 8216.36m². The perimeter of square field is
(a)   362.57 m   (b)   336.28 m   (c)   268.29 m   (d)   242.57 m

Q 23 Find the value of $\dfrac{\sqrt{3249}-\sqrt{2209}}{\sqrt{361}-\sqrt{81}}$.

Q 24 (a) 0.75   (b) 0.45

    (c) 0.95   (d) 0.99

Q 25 If $\sqrt{1+\dfrac{27}{169}}=1+\dfrac{X}{13}$, then x =

(a) 0   (b) 1

(c) Cannot be determined   (d) none of these

Q 26 Find the least number of six digits, which is a perfect square.

Q 27 Find the smallest number by which 1100 must be multiplied so that the product becomes a perfect square. Also, find the square root of the perfect square.

Q 28 Given 2 = 1.414, evaluate $\sqrt{(625/98)}$.

Q 29 Find the value of $\sqrt{(11025 \ X \ 1024)}$.