

Board – CBSE

Class – 8th

Topic – Square and Square Roots (Problems to Practice)

- Q.1** Find the perfect square numbers between
(i) 30 and 40 (ii) 50 and 60
- Q.2** Check whether the following numbers can be perfect squares? Give a reason.
(i) 1057 (ii) 23453
(iii) 7928 (iv) 222222
(v) 1089 (vi) 2061
- Q.3** Write five numbers that you cannot decide just by looking at their unit's digit (or one's place) whether they are square numbers or not.
- Q.4** Among the following: 123^2 , 77^2 , 82^2 , 161^2 , 109^2 which number would end with digit 1?
- Q.5** Which of the following numbers would have digit 6 at the unit place.
(i) 19^2 (ii) 24^2
(iii) 26^2 (iv) 36^2
(v) 34^2
- Q.6** What will be the one's digit in the square of the following numbers?
(i) 1234 (ii) 26387
(iii) 52698 (ix) 99880
(v) 21222 (vi) 9106
- Q.7** The square of which of the following numbers would be an odd number/an even number? Why?
(i) 727 (ii) 158
(iii) 269 (iv) 1280
- Q.8** What will be the number of zeros in the square of the following numbers?
(i) 60 (ii) 400
- Q.9** How many natural numbers lie between

(i) 9^2 and 10^{27}

(ii) 11^2 and 12^2

Q.10 How many non-square numbers lie between the following pairs of numbers

(i) 100^2 and 101^2

(ii) 90^2 and 91^2

(iii) 1000^2 and 1001^2

Q.11 Find whether each of the following numbers is a perfect square or not?

(i) 121

(ii) 55

(iii) 81

(iv) 42

(v) 69

Q.12 Express the following as the sum of two consecutive integers:

(i) 21^2

(ii) 13^2

(iii) 11^2

(iv) 12^2

Q.13 Is it possible that the sum of any two consecutive positive integers is a perfect square

of a number? Give an example to support your answer.

Q.14 Write the square of the number given below (Use any method).

(i) 75

(ii) 95

Q.15 Find the value of $17^2 - 12^2 + 15^2 - 10^2$

Q.16 What could be the possible one's digit of the square root of each of the following numbers?

(i) 9801

(ii) 99856

(iii) 998001

(ix) 657666025

Q.17 Without doing any calculation, find the numbers that are not perfect squares.

(i) 153

(ii) 257

(iii) 408

(iv) 441

Q.18 Find the square roots of 100 and 169 by the method of repeated subtraction.

Q.19 Find the square roots of the following numbers by the prime Factorization Method.

- | | |
|------------|------------|
| (i) 729 | (ii) 400 |
| (iii) 1764 | (ix) 4096 |
| (v) 7744 | (vi) 9604 |
| (vii) 5929 | (vii) 9216 |
| (ix) 529 | (x) 8100 |

Q.20 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.

- | | |
|------------|-----------|
| (i) 252 | (ii) 180 |
| (iii) 1008 | (iv) 2028 |
| (v) 1458 | (vi) 768 |

Q.21 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.

- | | |
|-----------|-----------|
| (i) 252 | (ii) 2925 |
| (iii) 396 | (iv) 2645 |
| (v) 2800 | (vi) 1620 |

Q.22 The students of Class VIII of a school donated Rs 2401 for the 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.

Q.23 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.

Q.24 Find the smallest square number that is divisible by each of the numbers 4, 2 and 10.

Q.25 Find the smallest square number that is divisible by each of the numbers 8, 15 and 20.

Q.26 Find the least number that must be subtracted from 5607 so as to get a perfect square.

Also, find the square root of the perfect square.

Q.27 Find the greatest 5-digit number which is a perfect square.

Q.28 Find the least number that must be added to 1300 so as to get a perfect square. Also, find the square root of the perfect square

Q.29 Find the square root of each of the following numbers by the Division method.

(i) 2304

(ii) 4489

(iii) 3481

(iv) 529

(v) 3249

(vi) 1369

(vii) 5776

(viii) 7921

(ix) 576

(x) 1024

(xi) 3136

(xii) 900

Q.30 Find the number of digits in the square root of each of the following numbers (without

any calculation).

(i) 64

(ii) 144

(iii) 4489

(iv) 27225

(v) 390625