

8th Square and Square Root CBSE Test Paper-1

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

- (i) 81 (ii) 272 (iii) 799 (iv) 3853 (v) 1234
(vi) 26387 (vii) 52698 (viii) 99880 (ix) 12796 (x) 55555

2. Find the square root of 1764 by finding prime factors.

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

- (i) 431 (ii) 2826 (iii) 7779 (iv) 82004

4. (i) Express 49 as the sum of 7 odd numbers.

(ii) Express 121 as the sum of 11 odd numbers.

5. Without adding, find the sum.

(i) $1 + 3 + 5 + 7 + 9$

(ii) $1 + 3 + 5 + 7 + 9 + 11 + 13 + 15 + 17 + 19$

(iii) $1 + 3 + 5 + 7 + 9 + 11 + 13 + 15 + 17 + 19 + 21 + 23$

6. How many numbers lie between squares of the following numbers?

- (i) 12 and 13 (ii) 25 and 26 (iii) 99 and 100

{We know that between n^2 and $(n + 1)^2$ there are $2n$ non perfect square number (iii) $2 \times 99 = 198$ }

7. Write a Pythagorean triplet whose one member is.

- (i) 14 (ii) 16 (iii) 18 (iv) 5 (v) 15

[As we know $2m$, $m^2 + 1$ and $m^2 - 1$ form a Pythagorean triplet for any number, $m > 1$.]

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

- (i) 9801 (ii) 657666025 (iii) 998001 (iv) 99856

[$4^2 = 16$ and $6^2 = 36$, hence, 4 and 6 are possible]

8. without doing any calculation, find the numbers which are surely not perfect squares.

- (i) 153 (ii) 257 (iii) 408 (iv) 441

[Option 1 can be a perfect square; others can't be perfect squares because the unit digit of a perfect square can be only from 0, 1, 4, 5, 6, 9]

9. 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

10. 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