CLASS VIII
MATHEMATICS
WORKSHEET-I
CHAPTER- SQUARE & SQUARE ROOT

Note-: Parents are expected to ensure that the child reads the description of square and square roots from the previous class book (Class VII) and see the examples carefully in order to have a clear and a better understanding.

Example-1

Is 144 a perfect square?

Solution:
$$144 = \overline{2 \times 2} \times \overline{2 \times 2} \times \overline{3 \times 3}$$

Answer: **The prime factor of 144 can be grouped in pairs, 144 is a perfect square.**

Question no. 1: Solve the following:

Are these **a,b,c,d** a perfect square.?   a) 196   b) 180   c) 784   d) 625

****

Example-2

Find the square root of 225

Solution:
Square root of $225 = \sqrt{225}$

$$= \sqrt{(5 \times 5) \times (3 \times 3)}$$
$$= 5 \times 3 = 15 \text{ (Answer)}$$

Question no. 2:
Find the square root of-   a) 484   b)784   c) 324

****

Example-3 Find the smallest number by which 980 be multiplied so that the product comes out to be a perfect square.

Solution:
$$980 = \overline{2 \times 2} \times 5 \times \overline{7 \times 7}$$
Since, the prime factor 5 is not in pair. Therefore, the given number should be multiplied by 5.

$980 \times 5 = \overline{2 \times 2} \times \overline{5 \times 5} \times \overline{7 \times 7}$, therefore $\sqrt{980 \times 5} = 2 \times 5 \times 7 = 70$ **(ANSWER)**

Question no. 3:
   A) Find the smallest number by which 1250 be multiplied so that the product comes out to be a perfect square.
   B) Find the smallest number by which 2592 be multiplied so that the product is a perfect square.
   C) Find the smallest number by which 12748 be multiplied so that the product is a perfect square.

**************END*************