

PRACTICE WORKSHEET

Subject: Mathematics

Class: CBSE 10th

Chapter: Real Numbers

Worksheet: M-1

- 1. The product of two numbers is 120. If their H.C.F. is 6 what is their L.C.M.
- 2. Find the least length of a rope which can be cut into whole number of pieces of lengths 45 cm, 75 cm and 81 cm.
- 3. Find the highest common factor and least common multiple of the following pairs of numbers:
 - (i) 576 and 1440
 - (ii) 625 and 325
 - (iii) 496 and 1116
- 4. Show that the square of an odd positive integer is of the form 8m + 1, for some whole number m.
- 5. Show that the square of an odd positive integer can be of the form 6q + 1 or 6q + 3 for some integer q.
- 6. Show that the square of any positive integer cannot be of the form 5q + 2 or 5q + 3 for any integer q.
- 7. Show that the square of any positive integer is either of the form 4q or 4q + 1 for some integer q.
- 8. Prove that $\sqrt{3}$ is irrational.
- 9. Prove that $\sqrt{3}$ + 5 is irrational.
- 10. On a morning walk, three persons step off together and their steps measure 40 cm, 42 cm and 45 cm, respectively. What is the minimum distance each should walk so that each can cover the same distance in complete steps?
- 11. Using Euclid's division algorithm, find which of the following pairs of numbers are co-prime:
 - (i) 231, 396
 - (ii) 847, 2160