## Worksheet

1. Choose the correct option.
   a. The value of the least perfect square is
      i. 1    ii. 4    iii. 9    iv. 6
   b. Which among the following is a perfect square number?
      i. 2880    ii. 5600    iii. 2500    iv. 25000
   c. Which of the following is a square of an even number?
      i. 9216    ii. 3969    iii. 2601    iv. 5041
   d. The value of $x$ in the equation $\dfrac{x}{\sqrt{4}} = \dfrac{\sqrt{36}}{x}$ is
      i. 12    ii. 144    iii. 72    iv. 288
   e. Find the value of $\sqrt{x^2 y}$, when $x = 5$ and $y = 4$.
      i. 100    ii. 10    iii. 80    iv. 20

2. Fill in the blanks.
   a. The square of an odd number is an _____ number.
   b. A square number never ends with 2, 3, 7 or _____.
   c. $\dfrac{3}{\sqrt{0.09}}$ is equal to _____.
   d. If $\sqrt{169} = 13$, then the value of $\sqrt{0.0169}$ is _____.

3. Find the value of the following correct to 3 decimal places.
   a. $\sqrt{2}$      b. $\sqrt{56852}$      c. $\sqrt{25689}$

4. Evaluate:
   a. $\sqrt{13^2 - 5^2}$   b. $\sqrt{26^2 - 24^2}$   c. $\left( \sqrt{\dfrac{361}{64}} + \sqrt{7921} \right) - \sqrt{81}$

5. Using long division method, find the square root of the following.
   a. 2079364    b. 724201    c. 17161    d. 181476

6. Find the square root of the following decimals.
   a. 11.2896    b. 298.9441    c. 702.7801    d. 0.00003136

7. If $\sqrt{18225} = 135$, then evaluate $\sqrt{182.25} + \sqrt{1.8225} + \sqrt{0.018225}$.

8. Find the least 4-digit number which is a perfect square and is divisible by 8, 12, 15 and 20.

9. Find the greatest 7-digit number which is a perfect square.

10. Find the smallest number which should be added to 88600 to make it a perfect square.

11. A yoga instructor wants to arrange maximum number of students from 10062 students on a ground, so that the number of rows is equal to the number of columns. How many rows are there if 261 students are left out in this arrangement?

12. The area of square field is $129\dfrac{31}{625}$ m². Find the dimension of the field.

13. Find the smallest number by which 36504 should be multiplied to make it a perfect square. Also, find the square root of the resultant number.

14. Find the square root of 16, 4 and 0.04.

15. Find the smallest perfect square number which is exactly divisible by 10, 15 and 25.

16. Classify the following as True (T) or False (F) statements.

  a. The square root of a number is always less than the number.

  b. The square root of an even perfect square is even.

  c. If the number has odd number of zeros at the end, then the square will also have odd number of zeros at the end.

  d. The square root of 0.09 is 0.03.

  e. The square root of 0.04 is 0.2.

  f. The square root of –16 is –4.

  g. The square of –6 is 36.

  h. In square numbers, the digit at unit's place may be 7 or 8.

17. a. The smallest 5-digit number which is a perfect square is _____ .

  b. The greatest 5-digit number which is a perfect square is _____ .

18. Evaluate:

  a. $2 \div \sqrt{0.04}$

  b. $\sqrt{0.0025} \times \sqrt{2.25}$

## Answers to Worksheet

| 1. | a. i | b. iii | c. i | d. i | e. ii |
|---|---|---|---|---|---|
| 2. | a. odd | b. 8 | c. 10 | d. 0.13 | |
| 3. | a. 1.414 | b. 238.437 | c. 160.278 | | |
| 4. | a. 12 | b. 10 | c. $82\dfrac{3}{8}$ | | |
| 5. | a. 1442 | b. 851 | c. 131 | d. 426 | |
| 6. | a. 3.36 | b. 17.29 | c. 26.51 | d. 0.0056 | |
| 7. | 14.985 | 8. 3600 | 9. 9998244 | 10. 204 | |

11. 99    12. $11\dfrac{9}{25}$ m    13. 6, 468    14. 4, 2 and 0.2

15. 900    16. True: b, e, g; False a, c, d, f, h

17. a. 10000    b. 99856    18. a. 10    b. 0.075