TYPE/TOPIC OF QUESTIONS: PROPERTIES OF SQUARES

1. Which of the following are the squares of even numbers?
   (i) 196   (ii) 441   (iii) 400   (iv) 324
2. Which of the following are the squares of odd numbers?
   (i) 121   (ii) 225   (iii) 196   (iv) 484
3. Evaluate:
   (i) $(38)^2$ - $(37)^2$ (ii) $(75)^2$ - $(74)^2$ (iii) $(92)^2$ - $(911)^2$
4. Without adding, find the sum:
   (i) $(1 + 3 + 5 + 7 + 9 + 11)$ (ii) $(1 + 3 + 5 + 7 + 9 + 11 + 13 + 15 + 17 + 19)$
5. (i) Express 64 as the sum of eight odd numbers.
   (ii) Express 121 as the sum of eleven odd numbers.
6. Write a Pythagorean triplet whose smallest member is   (i) 6   (ii) 14   (iii) 16   (iv) 20

TYPE/TOPIC OF QUESTIONS: SQUARE ROOTS USING PRIME FACTORISATION

7. Find the square root of each of the following numbers by prime factorization method:
   (i) 225   (ii) 441   (iii) 1296   (iv) 2025   (v) 4096   (vi) 7056
8. Find the square root of the following fractions:
   $(i)\ 3\frac{13}{36}$ (ii) $\frac{625}{729}$ $(iii)\ 4\frac{73}{324}$
9. 1225 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.
10. The students of a class arranged a picnic. Each student contributed as many rupees as the no. of students in the class. If the total contribution is Rs 1156, find the strength of the class.

TYPE/TOPIC OF QUESTIONS: FINDING THE LEAST NUMBER TO BE MULTIPLIED/DIVIDED TO GET A PERFECT SQUARE USING PRIME FACTORISATION METHOD

11. Find the smallest number by which 1008 must be multiplied to get a perfect square. Also, find the square root of the perfect square so obtained.
12. Find the smallest number by which 768 must be multiplied to get the perfect square number.

TYPE/TOPIC OF QUESTIONS: SQUARE ROOTS USING LONG DIVISION

13. Evaluate using long division method:
    (i)$\sqrt{10404}$ (ii) $\sqrt{7956}$ (iii) $\sqrt{19600}$ (iv)$\sqrt{92416}$

TYPE/TOPIC OF QUESTIONS: FINDING THE LEAST NUMBER TO BE ADDED/SUBTRACTED TO GET A PERFECT SQUARE USING LONG DIVISION METHOD

14. Find the least number which must be added to 306455 to obtain a perfect square.
15. Find the least number which must be added to 8400 to obtain a perfect square. Find this perfect square and its square root.
16. Find the least number of four digits which is a perfect square. Also find its square.
17. Find the greatest number of five digits which is a perfect square. Also find its square root.

TYPE/TOPIC OF QUESTIONS: SQUARE ROOTS OF DECIMALS USING LONG DIVISION

18. Find the square roots of the following decimal numbers:
    (i) $\sqrt{156.25}$ (ii) $\sqrt{75.69}$ (iii) $\sqrt{9.8596}$ (iv) $\sqrt{10.0486}$