



RAMAGYA SCHOOL, NOIDA
VIII/MATHEMATICS/2017-18
OLYMPIAD PRACTICE WORKSHEET

(CONCEPT BASED)

1. The number having digit 6 at unit's place is
a. 19^2 b. 15^2 c. 14^2 d. 13^2
2. All the square numbers must end with 0,1,4.....,6 or 9 at unit's place
a. 3 b. 2 c. 5 d. 8
3. The number which is a perfect square is
a. 1057 b. 1089 c. 2222 d. 23453
4. Number that would end with digit 1 is
a. $(109)^2$ b. $(123)^2$ c. $(77)^2$ d. $(82)^2$
5. The one's digit in the square of 265698 is
a. 2 b. 3 c. 4 d. 5
6. A square number can only have _____ number(s) of zeroes in the end
a. Odd b. Even c. Positive d. Negative
7. If a number contains zeros at the end, then number of zeros its square will have, is
a. 5 b. 15 c. 10 d. 20

(APPLICATION BASED)

8. $(40 + 3)^2$ is equal to
a. $(40)^2 + (3)^2 - 2(40)(3)$
b. $(40)^2 - (3)^2 + 80 \times 3$
c. $1609 - 240$
d. $40^2 + 3^2 + 2 \times 40 \times 3$
9. The third member of the Pythagorean triplet whose two members are 14 and 50 is
a. 47 b. 16 c. 65 d. 48
10. The estimated value of $\sqrt{350}$ to the nearest whole number is
a. 18 b. 17 c. 16 d. 19
11. The smallest square number divisible by each one of the number 8, 9 and 10 is
a. 360 b. 1800 c. 3600 d. 18000
12. The perimeter of the square is 48 units, its length is
a. 21 b. 24 c. 12 d. 4

13. When a number is divided by 125, the remainder is 82, when the same number is divided by 25, the remainder will be ____.
- (A) 8 (B) 9 (C) 6 (D) 7
14. On dividing 1 by $\frac{1}{2}$ we get
- a. $\frac{1}{4}$ b. 1 c. 2 d. $\frac{3}{2}$
15. The Pythagorean triplet, whose smallest member is 6 are given by
- a. 5,12,13
b. 8,15,17
c. 6,8,10
d. 6,8,11
16. Abha is building birdhouses. It takes her 3.2 hours to build 4 birdhouses. Which of the following is an equivalent rate ?
- (A) 14 hours to build 18 birdhouses (B) 28 hours to build 35 birdhouses
(C) 11 hours to build 8 birdhouses (D) 22 hours to build 28 birdhouses
17. Father's age is equal to the sum of the ages of his five children. After 15 years, his age will be only half of the sum of the children's ages. How old is the father ?
- (A) 42 yrs (B) 43 yrs (C) 44 yrs (D) 45 yrs

(HOTS BASED)

18. The least number to be added to 141 to make it a perfect square is
- a. 3 b. 4 c. 8 d. 9
19. The value of $\sqrt{2.4} \times \sqrt{0.6}$ is
- a. 0.012 b. 0.12 c. 1.02 d. 1.2
20. The value of $\frac{\sqrt{392}}{\sqrt{288}}$ is
- a. $1\frac{1}{6}$ b. $4\frac{2}{3}$ c. $2\frac{1}{3}$ d. $2\frac{1}{6}$