



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

(CONCEPT BASED)

- The number of sides of a regular polygon, whose each exterior angle has the measure of 40° is
a. 8 b.9 c.10 d. 5
- The sum of all the external angles of a regular octagon is
a. 180° b. 360° c. 270° d. 90°
- The consecutive angles of a quadrilateral is
a. complimentary b. supplementary c. equal d. None of these
- Number of sides a regular polygon have, if each of its interior angle is 160°
a. 18 b. 20 c. 24 d. 28
- The measures of two adjacent angles of a parallelogram are in the ratio 7:2, then the measure of all the angles of a parallelogram are
a. $40^\circ, 100^\circ, 80^\circ, 140^\circ$ b. $140^\circ, 40^\circ, 140^\circ, 40^\circ$
b. c. $35^\circ, 35^\circ, 45^\circ, 45^\circ$ d. $120^\circ, 60^\circ, 60^\circ, 120^\circ$
- In a parallelogram if one angle is 30° , then the other three angles are
a. $150^\circ, 30^\circ, 150^\circ$ b. $60^\circ, 30^\circ, 60^\circ$ c. $45^\circ, 45^\circ, 45^\circ$ d. None of these
- A die is thrown, the probability of getting an odd number is
a. $1/2$ b. $1/3$ c. $1/6$ d. $4/6$

(APPLICATION BASED)

- The probability of getting a number greater than 7, when a die is rolled is
a. 1 b. $\frac{1}{2}$ c. $\frac{1}{3}$ d. 0
- Two coins are tossed simultaneously. The probability of getting no tail is
a. 47 b. 16 c. 65 d.48

10. There are 16 chocolates 4 each flavour of grape, banana, cherry and coffee. There are 5 children, if each allowed to choose their own flavour, what is the probability that all of them gets flavour of your choice.

$\frac{255}{256}$ b. $\frac{255}{255}$ c. $\frac{161}{256}$ d. $\frac{254}{256}$

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. A letter is drawn at random from the set of alpha bets. The probability that it is vowel is

- a. $\frac{1}{5}$ b. $\frac{5}{26}$ c. $\frac{21}{26}$ d. $\frac{26}{5}$

15. A letter is selected from the word HAPPINESS, the probability that it is a consonant is,

- a. $\frac{3}{9}$
b. $\frac{6}{9}$
c. $\frac{4}{9}$
d. $\frac{5}{9}$

16. Look at the set of 10 numbers how would it change if 88 were added to the set?
84,91,87,84,92,93,89,84,83,93.

- (A) Increase (B) Decrease (C) No change

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)

18. Sum of all interior angles of a polygon with (n) sides is given by

- (a) $(n - 2) \times 180$ (b) $n - 2 \times 180$ (c) $(n + 2) \times 180$ (d) $n + 2 \times 180$

19. Each exterior angle of a regular hexagon is of measure

- (a) 120 (b) 80 (c) 100 (d) 60

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. $2\frac{1}{6}$