



RAMAGYA SCHOOL, NOIDA
VI/ MATHS /2017-2018
OLYMPIAD PRACTICE WORKSHEET

(Concept)

- If measure of a side of a regular octagon is 6cm, then its perimeter is:
a. 48 cm b. 36 cm c. 54 cm d. 56 cm
- If two plane figures A and B coincide with each other, then they have:
a. Equal areas b. equal perimeters c. equal area and perimeter d. none of these
- The equivalent of $\frac{5}{100}$ is decimals is:
a. 0.5 b. 0.005 c. 0.05 d. 1.05
- 100 metres is equal to:
a. 1 km b. 0.1km c.0.001km d. 0.01km

(Application)

- If the length of a rectangle is doubled and its breadth is halved then its area:
a. Remain same b. becomes half c. doubles d. becomes one-fourth
- The sum of 3.0011 and 0.3322 is:
a. 3.0302 b. 3.1122 c. 3.2211 d. 3.3333
- The cost of ploughing a field at the rate of Rs 4 per m sq is Rs 1,024. If the breadth of the field is 8m, then its length is:
a. 12m b. 16m c. 32m d. 64m
- The cost of flooring at Rs 20 per square metre is Rs 4200. If the length of the room is 21m, then its breadth is:
a. 5m b. 10m c. 15m d. 20 m
- While estimating the area of a closed figure, the contribution of 5 squares (1cmX1cm) which are more than half filled is:
a. 0 cm^2 b. 4 cm^2 c. 8 cm^2 d. 16 cm^2
- If q is the mean proportion of p and r then the value of q is:
a. Pr b. $(pr)^2$ c. \sqrt{pr} d. $\frac{pr}{2}$
- The third proportional to 2 and 8 is:
a. 1 b. 4 c. 16 d. 32
- Krish travels 8 km in an hour. Arushi travels 12 km in half an hour. The ratio of the speed of Krish to the speed of Arushi is:
a. 2:3 b. 3:2 c. 1:2 d. 1:3
- The ratio of five dozen balls to 16 balls is:
a. 15:4 b. 5:16 c. 16:5 d. 1:3

14. If 1,2,3 and x are in proportion, then the value of x is:
a. 3 b. 4 c. 5 d. 6
15. Gaurav earns Rs 1200 in 10 days. In 18 days he will earn:
a. Rs 2,160 b. Rs 2,000 c. Rs 1,960 d. Rs 2,250

(HOTS)

16. Which of the following lie outside or on the triangle?
a. circumcentre b.centroid c.orthocenter d. incentre
17. If $3^x = 500$ then the value of 3^{x-2} is
a. $\frac{100}{9}$ b. $\frac{1000}{9}$ c. $\frac{500}{3}$ d. $\frac{500}{9}$
18. If $\frac{p}{q} = \left(\frac{2}{3}\right)^3 \div \left(\frac{3}{2}\right)^{-3}$ then the value of $\left(\frac{p}{q}\right)^{-10} =$
a. 1 b. 0 c. cannot be determined d. none
19. If $\sqrt{2} = 1.414$ then the value of $\frac{5+\sqrt{2}}{5-\sqrt{2}}$ is
a. 1.787 b. 1.525 c. 1.828 d. 1.326
20. In a triangle ABC, E is the mid point of AC and G is the centroid of the triangle then BE:GE
a. 1:2 b. 2:1 c.3:1 d. 1:3