

KNOWLEDGE HORIZON CLASSES

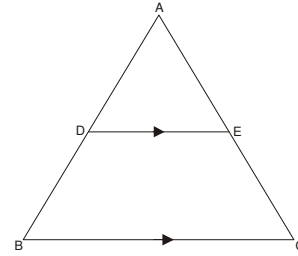
Test Series

- Q1.** 2.13113111311113..... is
(a) Rational (b) An integer
(c) Irrational (d) None of these
- Q2.** If α and β are the zeros of $2x^2 + 5x - 10$, then the value of $\alpha\beta$ is
(a) $-\frac{5}{2}$ (b) 5
(c) -5 (d) $\frac{2}{5}$
- Q3.** A and B are friends and their ages differ by 2 years. A's father D is twice as old as A and B is twice as old as his sister C. The age of D and C differ by 40 years. Find the ages of B and A.
(i) 20, 22 (ii) 18, 20
(iii) 24, 26 (iv) 30, 32
- Q4.** If α and β are the roots of $3x^2 + 8x + 2 = 0$, then the value of $(\alpha^2 + \beta^2)$ is
(i) 48 (ii) 13
(iii) $\frac{9}{52}$ (iv) $\frac{52}{9}$
- Q5.** The area of the right angled triangle is 600 sq cm. If the base of the triangle exceeds the altitude by 10cm, find the dimensions of the triangle.
(i) 40, 50 (ii) 20, 30
(iii) 40, 30 (iv) 50, 60
- Q6.** How many terms are there in the AP 7, 10, 13,151?
(i) 50
(ii) 55
(iii) 45
(iv) 49

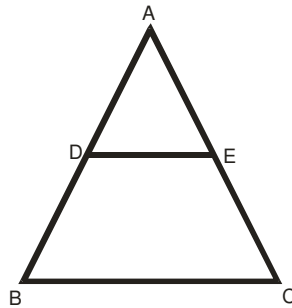
- Q7.** In the given figure, In $\triangle ABC$, $DE \parallel BC$, so that $AD = 2.4$ cm, $AE = 3.2$ cm and $EC = 4.8$ cm

Then, $AB = ?$

- (i) 3.6 cm (ii) 6 cm
(iii) 6.4 cm (iv) 1.6 cm



- Q8.** In the given figure, DE is parallel to BC and $AD : DB = 2 : 3$. Determine $\text{Area}(\triangle ADE) : \text{Area}(\triangle ABC)$.



- (i) 4 : 9 (ii) 25 : 81 (iii) 36 : 100 (iv) 4 : 25

- Q9.** $\triangle ABC$ is an isosceles triangle with $AB = AC = 13$ cm. The length of altitude from A on BC is 5 cm, Find BC .

- (i) 18 cm (ii) 12 cm
(iii) 16 cm (iv) 24 cm

- Q10.** A is a point on y -axis at a distance of 4 units from x -axis lying below x -axis. The coordinates of A are

- (i) (4, 0) (ii) (0, 4)
(iii) (-4, 0) (iv) (0, -4)

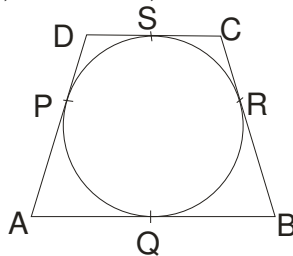
- Q11.** If $5 \cot \theta = 3$ then, $\frac{(5 \sin \theta - 3 \cos \theta)}{(4 \sin \theta + 3 \cos \theta)} = ?$

- (i) $\frac{11}{18}$ (ii) $\frac{16}{29}$ (iii) $\frac{14}{27}$ (iv) None of these

- Q12.** If the angles of elevation of the top of a tower from two points distant a and b form the base and in the same straight line with it are complementary, then the height of the tower is

- (i) ab (ii) \sqrt{ab}
(iii) $\frac{a}{b}$ (iv) $\sqrt{\frac{a}{b}}$

- Q13.** In the given figure, quad. ABCD is circumscribed, touching the circle at P, Q, R and S. If $AP = 5$ cm, $BC = 7$ cm, and $CS = 3$ cm, then length $AB = ?$



- (i) 9 cm (ii) 10 cm
(iii) 12 cm (iv) 8 cm
- Q14.** A wire can be bent in the form of a circle of radius 56 cm. If it is bent in the form of a square, then its area will be
(i) 3520 cm^2 (ii) 6400 cm^2
(iii) 7744 cm^2 (iv) 8800 cm^2
- Q15.** Find the surface area of a cricket ball of radius 2 inches.
(i) 50.28 square inches
(ii) 53.99 square inches
(iii) 55.00 square inches
(iv) 58.55 square inches
- Q16.** The radii of two cylinders are in the ratio 2:3. If their heights are in the ratio 5:3, find the ratio of their volumes.
(i) 20:27 (ii) 20:37
(iii) 37:47 (iv) 27:37
- Q17.** A circus tent is cylindrical to a height of 4 m and conical above it. If its diameter is 105 m and its slant height is 40 m, the total area of canvas required is
(i) 1760 m^2 (ii) 2640 m^2
(iii) 3960 m^2 (iv) 7920 m^2
- Q18.** In the following ungrouped frequency distribution, median =
- | | | | | | | |
|-----------------|---|----|----|----|----|----|
| Marks | 5 | 10 | 15 | 20 | 25 | 30 |
| No. of students | 3 | 4 | 11 | 15 | 10 | 7 |
- (i) 15 (ii) 17.5
(iii) 20 (iv) 22.5
- Q19.** The probability of winning a game is 0.3. What is the probability of loosing it?
(i) 1 (ii) 0.5
(iii) 0.7 (iv) none of these
- Q20.** Find the probability of getting a number less than 5 in a single throw of a dice.
(i) $2/3$ (ii) $1/3$
(iii) 1 (iv) $2/5$