STANDARD 7TH: CHAPTER 12

Perimeter & Area

Q.1. Choose the correct alternative.

1. What is the area of an equilateral triangle with each side measuring 10 units?
    a. $100\sqrt{3}\ Sq\ Units$
    b. $75\sqrt{3}\ Sq\ Units$
    c. $50\sqrt{3}\ Sq\ Units$
    d. $25\sqrt{3}\ Sq\ Units$

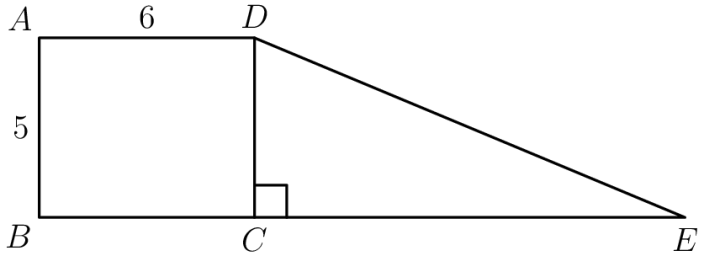
2. A rectangular carpet has an area of 60 sq. m. If its diagonal and longer side together equals 5 times the shorter side. The length of rectangle is _____m
    a. 6m
    b. 10m
    c. 12m
    d. 5m

3. The sides of triangle are consecutive integers. The perimeter of the triangle is 120cm. Find the greatest side of the triangle.
    a. 39 cm
    b. 41 cm
    c. 40 cm
    d. 42 cm
4. The dimensions of shoebox are 30cm, 20cm and 10 cm. find the surface area of shoebox
    a. 2200 sq. cm
    b. 2400 sq. cm
    c. 1400 sq.cm
    d. 1800 sq.cm

5. The area of the triangle is equal to area of square who's each side is 60m. The height of the triangle is 90m then the base of the triangle is_____.
    a. 70m
    b. 75m
    c. 80m
    d. 60m

6. One-inch squares are cut from the corners of this 5-inch square. What is the area in square inches of the largest square that can be fitted into the remaining space?
    a. 17 sq. inch
    b. 16 sq. inch
    c. 23 sq. inch
    d. 15 sq. inch

7. Rectangle $ABCD$ and right triangle DCE have the same area. They are joined to form a trapezoid, as shown. What is DE?



    a. 13 unit
    b. 14 unit
    c. 15 unit
    d. 16 unit

8. The length of rectangular field is thrice the breadth. If the cost of the cultivating sunflower in the field is Rs. 308448 Rs. @ Rs 3672 per sq. m Then what is the perimeter of the field?
    a. $2\sqrt{28}$ m
    b. $8\sqrt{24}$ m
    c. $4\sqrt{28}$ m
    d. $8\sqrt{28}$ m

9. If the length of some rectangle is decreased by 4 m and breadth is increased by 2m it would result in a square of same area.
   What is the perimeter of original rectangle?
    a. 15m
    b. 20m
    c. 30m
    d. 14m

10. A ball with diameter 4 inches starts at point A to roll along the track shown. The track is comprised of 3 semicircular arcs whose radii are $R_1 = 100$ inches, $R_2 = 60$ inches, and $R_3 = 80$ inches, respectively. The ball always remains in contact with the track and does not slip. What is the distance the centre of the ball travels over the course from A to B?
    a. 250π
    b. 236π
    c. 244π
    d. 238π

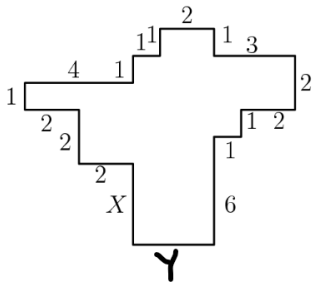
Q.2 Solve the following questions

1. The length and breadth of rectangle are increased by 5% and 8% respectively what is the change in area of rectangle in percentage?

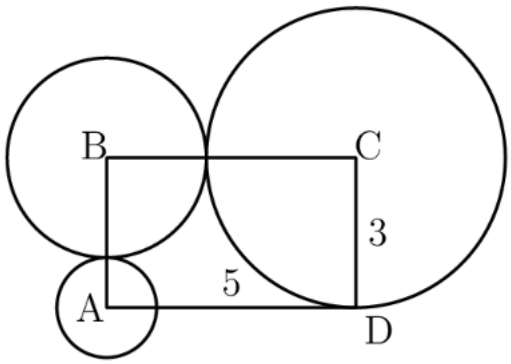
2. The parallel sides of trapezium are 25 cm and 11 cm and its non-parallel sides are 15cm and 13 cm. What is the area of trapezium?

3. If the length of each side of the cube is doubled the how many times does its surface area becomes?

4. Find X, Y and perimeter of the following figure:



5. Rectangle $ABCD$ has sides $CD = 3$ and $DA = 5$. A circle of radius 1 is cantered at A, a circle of radius 2 is cantered at B, and a circle of radius 3 is cantered at C. Which of the following is closest to the area of the region inside the rectangle but outside all three circles?

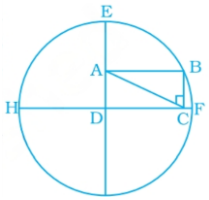


6. The diagonals of a rhombus measure 8 cm and 6 cm. Find the area and the perimeter of the rhombus.

7. A rectangular shaped swimming pool with dimensions 30 m × 20 m has 5 m wide cemented path along its length and 8 m wide path along its width Find the cost of cementing the path at the rate of Rs 200 per sq. m
Draw diagram and solve

8. State and prove the formula for area of rhombus.

9. Rectangle ABCD is formed in a circle as shown in figure If AE = 8 cm and AD = 5 cm, find the perimeter of the rectangle



10. State and prove the formula for area of trapezium.