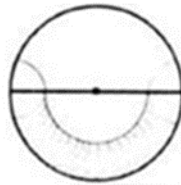


JSTSE : PREVIOUS YEARS
(Mathematics : AREA)

1. In figure 2r is radius of Circle, then area of Shaded region is (2011)

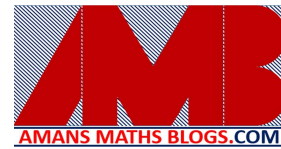


(a) $\frac{1}{2} \pi r^2$

(b) $\frac{2}{3} \pi r^2$

(c) πr^2

(d) $\frac{3}{2} \pi r^2$



Ans. (c)

2. If D, E, F are mid points of sides BC, CA and AB respectively of a ΔABC , then ratio of ar(ABCD) and ar(ΔABC) is (2011)

(a) 4 : 3

(b) 12 : 11

(c) 16 : 9

(d) 32 : 27

Ans. (c)

3. The perimeter of an equilateral triangle is 60m. Its area will be (2013)

(a) $5\sqrt{3} \text{ m}^2$

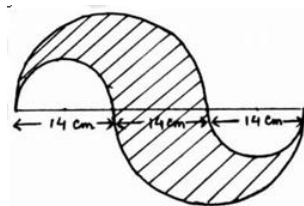
(b) $25\sqrt{3} \text{ m}^3$

(c) $100\sqrt{3} \text{ m}^2$

(d) $200\sqrt{3} \text{ m}^2$

Ans. (c)

4. Area of the shaded region is



(a) 154 cm^2

(b) 231 cm^2

(c) 462 cm^2

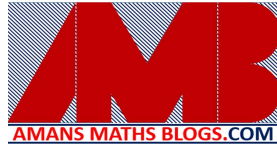
(d) 616 cm^2

Ans. (b)



5. PQRS is square. T and U are respectively the mid points of PS and OR. If O is the point of intersection of TU and OS and PQ = 8 cm, then area of ΔOTS is (2013)

(a) 4 cm^2



(b) 8 cm^2

(c) 12 cm^2

(d) 16 cm^2

Ans. (b)

6. The edges of a triangular board are 50 cm, 120 cm and 130 cm. The cost of painting it at the rate of Rs. 900 per m^2 is (2013)

(1) Rs. 27

(2) Rs. 270

(3) Rs. 540

(4) Rs. 27000

Ans. (3)

7. The cost of travelling a rectangular field at the rate of 85 paise per sq. metre is Rs. 624.75. Find the perimeter if its sides are in the ratio 5 : 3. (2014)

(1) 56 cm

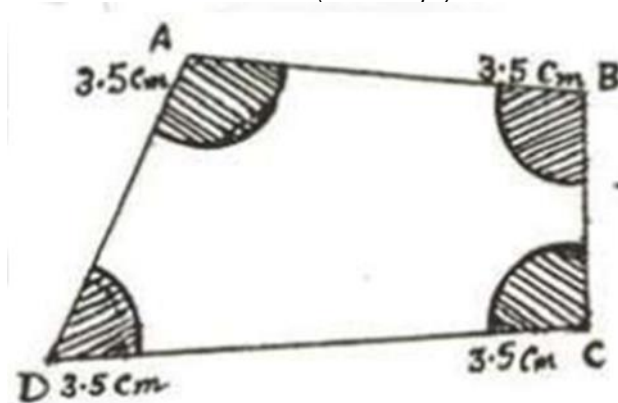
(2) 32 cm

(3) 24 cm

(4) 112 cm

Ans. (4)

8. In figure, area of the shaded region is $\left(\pi = \frac{22}{7} \right)$ (2014)



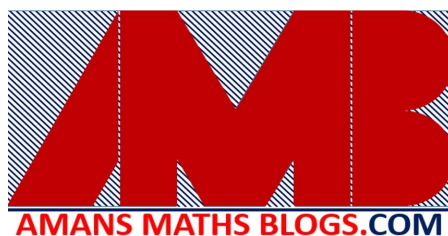
(a) 77 cm^2

(b) 154 cm^2

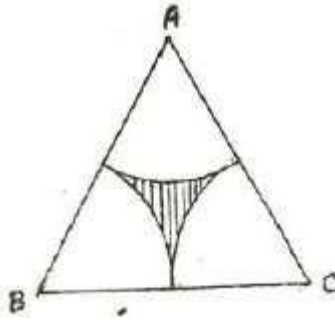
(c) 38.5 cm^2

(d) 90 cm^2

Ans. (c)



9. In figure ABC is an equilateral triangle of side 8 cm. Area of shaded region is (2014)



- (a) $32 - \frac{8\pi}{3} \text{ cm}^2$ (b) $32 - \frac{16\pi}{3} \text{ cm}^2$
 (c) $16\sqrt{3} - 8\pi \text{ cm}^2$ (d) $32\sqrt{3} - 16\pi \text{ cm}^2$

Ans. (c)

10. The difference between the sides a right angle in a right angled triangle is 14 cm. The area of the triangle is 120 cm^2 . Perimeter of triangle is (2014)
 (a) 50 cm (b) 36 cm
 (c) 60 cm (d) 34 cm

Ans. (c)

11. The area of a semi-circle is 308 m^2 . The perimeter of the semi-circle is (2015)
 (a) 44 m (b) 72 m
 (c) 58 m (d) 88 m

Ans. (c)

12. The area of a square, if the sum of its diagonals is 100 cm, is (2015)
 (a) 5000 cm^2 (b) 125 cm^2
 (c) $100\sqrt{2} \text{ cm}^2$ (d) 1250 cm^2

Ans. (d)

