

Bank Written Math Preparation

Lec. 11

Geometry

Excellence in Education

FOR ADMISSION:
01713289149

CLASS PRACTICE

1. The length of each of the two equal sides of an isosceles triangle is 10 cm and the included angle between those two sides is 45 degree. Find the area of the triangle? (BKB - (Cash)-2018 -(Written)]

Ans:- $25\sqrt{2}$

2. A rectangle PQRS is inscribed in the circle and PQ (Breadth) = 6. If the area of the rectangular region is 48, what is the area of the circular region? (Pubali Bank-(SO)-2013)

Ans:- 25π

3. In the square ABCD, the four un-shaded parts are quarter circles each having the same radius. If the side of the square is 16. What is the area of the shaped part? Express the answer in terms of π ? [Basic Bank (AO) -2009 (Written)]

Ans:- $256 - 64\pi$

4. The area of a rectangle is 1200 square meter. If the length of the rectangle is reduced by 10 meters, it becomes a square. Calculate the length of the diagonal of the rectangle. [BKB-officer)-2017 (Written)]

Ans:- 50

5. A rhombus has an area of 120 square meters and the length of its one diagonal is 10 meters. Calculate the perimeter of the rhombus. (BKB- (officer)-2017 (Written)]

Ans:- 52

6. The length of a tangent drawn from a point A is 12 cm which is 13 cm away from the centre of the circle. Find the diameter of the circle? (Sonal Bank (SO) - 2018- (Written)]

Ans:- 10

7. A Circular garden is surrounded by a road. If the outer circumference of the road is greater than the inner circumference by 88 meters. What is the width of the road? (Rupali Bank (SO-Written)-2019

Ans:- 14

8. A square is inscribed inside a circle. What is the area of the square if the radius of the circle is 10 cm.? [BB-(AD-General)-2018-(Written)]

Ans:- 200

9. Maximum size rectangular playground is made within a circular space of radius $2\sqrt{41}$. Calculate the area of the playground if its length and width are distributed in the proportion of 4:5. [Rupali Bank (Off)-2019-(Written)]

Ans:- 320

10. The area of an equilateral triangle is $3\sqrt{3}$ square meter. Determine the area of a circle inscribed within the triangle. [BKB- (officer)-2017-(Written)]

Ans:- $2\sqrt{3}$

11. If a tank pours 12 cubic feet in an hour. Then how many hours need to fill a tank with 14 feet long, 10 feet wide and 9 feet depth? [Brainly.in] + [IFIC Bank (TSO)-2021 (Written)]

Ans:- 105 hrs.

12. A hemisphere and a right circular cone on equal bases are of equal height. Find the ratio of their volumes. [Agrani Bank Officer (Cash)-2018-(Written)]

Ans:- 2:1

13. The base of a rectangle is three times as long as the height. If the perimeter is 64. What is the area of the rectangle? (BSEC (PA)-2021 (Written)]

Ans:- 192

14. If the length of a rectangular field is 30 feet more than its width and the perimeter is 380 feet. What is the area of the field in square feet? [Standard Bank Ltd.(TAO)-2016 (Written) & Shajalal Islami Bank (TSO) - 2016(Written)]

Ans:- 8,800

15. The area of a land is 432 square meters. If the ratios of lengths and breadths of that land and that of another land be 3 : 4 and 2 : 5 respectively, that what is the area of another land?

Ans:- 360

16. The ratio between the length and breadth of a rectangular park is 3:2. If a man cycling along the boundary of the park at the speed of 12 km per hour completes one side in 8 minutes then what is the area of the park? [Al- Arafah Islami Bank (MTO)-2013, City Bank (MTO)-2017-(Written)]

Ans:- 153600

17. একটি 60 মিটার x 40 মিটার বাগানের মাঝ বরাবর 5 মিটার চওড়া দুটি রাস্তা যথাক্রমে দৈর্ঘ্য এবং প্রস্থ বরাবর আছে। রাস্তা দুটি সিমেন্ট দিয়ে বাঁধতে প্রতি বর্গমিটারে 240 টাকা করে খরচ হলে মোট কত খরচ পড়বে? [IBBL - (ATO)-20-(Written)]

Ans:- 114000

18. The perimeter of a square field is equal to the perimeter of a rectangular field. Length of the rectangular is 3 times of its width and the area is 768 square meter. How many square sized tiles of 80 centimeter width will be required to cover the square field? [AL – Arafah Islami Bank- (MTO)-2017]+ [Social Islami Bank - (PO)-2017 (Written)] +[National Bank - (PO)- 2017 (Written)] & [Modhumoti Bank - (PO)-2018-(Written)]

Ans:-1600

SELF PRACTICE

19. ΔABC is triangle in which $AB = 3$ cm, $BC = 5$ cm and $AC = 4$ cm. AD is a perpendicular from A to BC . Find the length of AD . [Modhomoti Bank (PO) - 2016]

Ans:- 2.4

20. ABCD is a square. If the length of the square is 10ft, (AD and BC intersect O) and then what will be the area of the triangle OCD ? [RKUB Ltd. (Officer) – 2014 (Written)]

Ans:- 25

21. The length of a rectangle is twice its width. If the length is increased by 4 inches and width is decreased by 3 inches, a new rectangle is formed whose perimeter is 62 inches. What is the length of the original rectangle? [BB (AD) - 2011 - (Written)]

Ans:- 20

22. Twice the width of a rectangle is 10 meters more than its length. If the area of the region enclosed by the rectangle is 600 square meters then find its perimeter. [BD House Building FC (SO)-2017 (Written)]

Ans:- 10

23. The length of a tangent from a point A at distance 5 cm from the center of the circle is 4 cm. Find the radius of the circle (Agrani Bank (SO-Auditor)- 2018-(Written)]

Ans:- 3

24. A circular pond has area equal to 616 m². A circular stage is made at the center of the pond whose radii is equal to half the radius of the pond. What is the area where water is present?

Ans:- 462

25. A circle is inscribed inside a right angled triangle with equal sides. What is the area of the circle if the length of one side of the right angled triangles is 4 cm? Sonali Bank (SO) -- 2018-(Written)

Ans:- $8\pi(3-2\sqrt{2})$

26. Water has been poured into an empty rectangular tank at the rate of 5 cubic feet per minute for 6 minutes. The length of the tank is 4 feet and the width is one half of the length. How deep is the water in the tank? (Standard Bank (AO Cash)-20 11(written)

Ans:- 3.75

27. A semi circular sheet of metal of diameter 28 cm is bent into an open conical cup. Find the depth and capacity of cup? [Bangladesh Bank (Officer) - 2018- (Written)] + [38th BCS Written]

Ans:- $7\sqrt{3}$ and 622.37

28. The length of a rectangle is twice its width. If the length is increased by 4 inches and the width is decreased by 3 inches, a new rectangle is formed whose perimeter is 62 inches. What is the length of the original rectangle? [BB (AD)-2011-(written)]

Ans:- 20

29. The area of a rectangular plot is 323 square meters. Its perimeter is 72 meters. Find the length and breadth of the plot. [BB (Cash)-2011(written)]

Ans:- 19 & 17

30. A garden is 60 meter long and 20 meter wide. Inside the garden there is a 5 meter wide road around it. What is the area of the road in square meter? [Standard Bank Limited- (TAO)-2016- (Written)]

Ans:- 700

31. A rectangular park 60 m long and 40 m wide has two concrete crossroads running in the middle of the park and rest of the park has been used as a lawn. If the area of the lawn is 2109 sq. m, then what is the width of the road?

Ans:- 3

32. If each side of a rhombus is 20 meters and its shorter diagonal is three-fourths of its longer diagonal, then the area of this rhombus must be

Ans:- 384

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