

Chapter 11

Indicate the best answer by writing the appropriate letter.

- One side of a rectangle is 14 and the perimeter is 44. What is the area?
a. 112 b. 210 c. 224 d. 420
- What is the area of a square inscribed in a circle with radius 8?
a. 32 b. 64 c. $64\sqrt{2}$ d. 128
- The area of a circle is 25π . What is its circumference?
a. 5π b. 10π c. 12.5π d. 50π
- What is the area of a trapezoid with bases 7 and 8 and height 6?
a. 90 b. 336 c. 45 d. 168
- A parallelogram and a triangle have equal areas. The base and height of the parallelogram are 12 and 9. If the base of the triangle is 36, find its height.
a. 3 b. 6 c. 9 d. 12

6. What is the area of trapezoid $ABCD$?

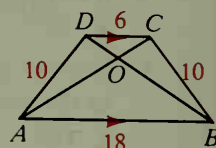
a. 96 b. 120 c. 144 d. 192

7. What is the ratio of the areas of $\triangle AOB$ and $\triangle COD$?

a. $\sqrt{3}:1$ b. $\sqrt{3}:3$ c. $3:1$ d. $9:1$

8. What is the ratio of the areas of $\triangle AOB$ and $\triangle AOD$?

a. $\sqrt{3}:1$ b. $3:1$ c. $9:1$ d. cannot be determined



Exs. 6-8

9. What is the area of a regular hexagon inscribed in a circle with radius 8?

a. $16\sqrt{3}$ b. $96\sqrt{3}$ c. $128\sqrt{3}$ d. $192\sqrt{3}$

10. In the diagram, what is the length of \widehat{AB} ?

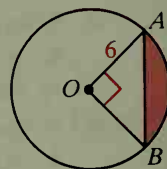
a. $6\sqrt{2}$ b. 6π c. 3π d. 36π

11. In the diagram, what is the area of the shaded region?

a. $9\pi - 36$ b. $12\pi - 36$ c. $9\pi - 18$ d. $12\pi - 18$

12. If a point is chosen at random in the interior of $\odot O$, what is the probability that the point is inside $\triangle AOB$?

a. $\frac{2}{\pi}$ b. $\frac{1}{4}$ c. $\frac{3}{2\pi}$ d. $\frac{1}{2\pi}$



Exs. 10-12

13. A rhombus has diagonals 6 and 8. What is its area?

a. 12 b. 24 c. 36 d. 48

14. What is the area of a circle with diameter 12?

a. $24\pi^2$ b. 12π c. 144π d. 36π

15. What is the area of an equilateral triangle with perimeter 24?

a. $64\sqrt{3}$ b. $32\sqrt{3}$ c. $\frac{32\sqrt{3}}{3}$ d. $16\sqrt{3}$

16. What is the area of a triangle with sides 15, 15, and 24?

a. 54 b. 108 c. 180 d. 216