

Area of Circles and Sectors

Unit 7: Circles

Find the exact area of the circle with the given radius or diameter.

1. Radius = 10 inches

2. Diameter = 42 feet

Find the indicated measure.

3. The area of a circle is 58 in^2 . Find the radius.

4. The area of a circle is 37 m^2 . Find the radius.

5. The area of a circle is 106 cm^2 . Find the diameter.

6. The area of a circle is 249 ft^2 . Find the diameter.

Find the area of the sectors formed by the given information.

7. Radius = 6 cm

Central Angle is a right angle.

8. Diameter = 20 in

Central Angle = 60°

9. Radius = 24 ft

Central Angle = 120°

10. Diameter = 8 m

Central Angle = 65°

Find the area of the circle given the central angle and the area of a sector of the triangle.

11. Area of the sector = 17.46 m^2
Central Angle = 100°

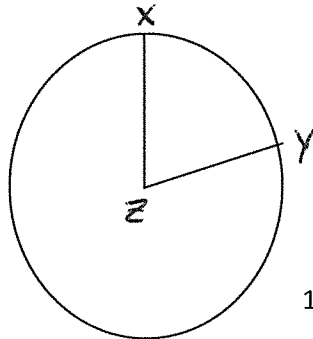
12. Area of the sector = 39.52 in^2
Central Angle = 175°

13. Area of the sector = 20.89 ft^2
Central Angle = 282°

14. Area of the sector = 23.79 cm^2
Central Angle = 80°

Mixed Review:

Given circle Z has an area of 124.44 cm^2 . The area of sector XZY is 28 cm^2 . Find the indicated measure.



15. Radius of circle Z.

16. Circumference of circle Z.

17. $m \widehat{XY}$

18. Length of \widehat{XY}