



Math worksheet on 'Geometry of Circles - Sector Area - Equation to Radius and Angle (Level 2)'. Part of a broader unit on 'Geometry - Intermediate - Practice'

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1 If the area of a sector of a circle is given by this equation, what is the radius of the circle and the sector angle?

$$\frac{\pi \cdot 1}{6}$$

- a** $r=2$, angle= 90°
- b** $r=2$, angle= 45°
- c** $r=1$, angle= 15°
- d** $r=1$, angle= 90°
- e** $r=3$, angle= 75°
- f** $r=1$, angle= 60°

2 If the area of a sector of a circle is given by this equation, what is the radius of the circle and the sector angle?

$$\frac{\pi \cdot 25}{4}$$

- a** $r=3$, angle= 30°
- b** $r=1$, angle= 75°
- c** $r=5$, angle= 90°
- d** $r=8$, angle= 135°
- e** $r=3$, angle= 135°
- f** $r=4$, angle= 45°

3 If the area of a sector of a circle is given by this equation, what is the radius of the circle and the sector angle?

$$\frac{\pi \cdot 9}{3}$$

- a** $r=4$, angle= 150°
- b** $r=1$, angle= 165°
- c** $r=5$, angle= 75°
- d** $r=2$, angle= 105°
- e** $r=3$, angle= 120°
- f** $r=7$, angle= 60°

4 If the area of a sector of a circle is given by this equation, what is the radius of the circle and the sector angle?

$$\frac{\pi \cdot 1}{3}$$

- a** $r=4$, angle= 150°
- b** $r=4$, angle= 105°
- c** $r=1$, angle= 45°
- d** $r=0$, angle= 135°
- e** $r=1$, angle= 120°
- f** $r=4$, angle= 60°

5 If the area of a sector of a circle is given by this equation, what is the radius of the circle and the sector angle?

$$\frac{\pi \cdot 25}{6}$$

- a** $r=5$, angle= 15°
- b** $r=4$, angle= 15°
- c** $r=2$, angle= 15°
- d** $r=4$, angle= 45°
- e** $r=1$, angle= 30°
- f** $r=5$, angle= 60°

6 If the area of a sector of a circle is given by this equation, what is the radius of the circle and the sector angle?

$$\frac{\pi \cdot 25}{2}$$

- a** $r=0$, angle= 165°
- b** $r=8$, angle= 195°
- c** $r=4$, angle= 195°
- d** $r=2$, angle= 180°
- e** $r=0$, angle= 195°
- f** $r=5$, angle= 180°

7 If the area of a sector of a circle is given by this equation, what is the radius of the circle and the sector angle?

$$\frac{\pi \cdot 16}{12}$$

- a** $r=3$, angle= 30°
- b** $r=1$, angle= 45°
- c** $r=4$, angle= 30°
- d** $r=8$, angle= 60°
- e** $r=8$, angle= 15°
- f** $r=6$, angle= 60°