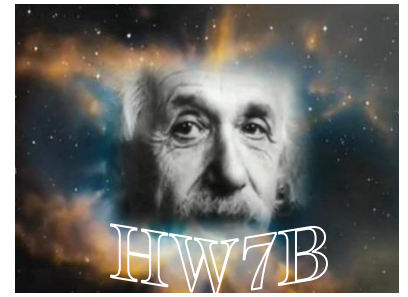


Use the arc length and area formulas (for sectors) to find the missing measures.  
Round all answers to nearest hundredth.



If  $\theta$  is in degrees:  $s = \frac{\theta}{360} \cdot 2\pi r$        $K = \frac{\theta}{360} \cdot \pi r^2$

If  $\theta$  is in radians:  $s = r \theta$        $K = \frac{1}{2} \cdot r^2 \theta$

- 1) A sector of a circle has radius 6 cm and central angle 0.5 radians. Find its arc length and area.
- 2) A sector of a circle has radius 5 cm and central angle 3 radians. Find its arc length and area.
- 3) A sector of a circle has arc length 11 cm and central angle 2.2 radians. Find its radius and area.
- 4) A sector of a circle has arc length 2 cm and central angle 0.4 radians. Find its radius and area.
- 5) A sector of a circle has area  $25 \text{ cm}^2$  and central angle 0.5 radians. Find its radius and arc length.
- 6) A sector of a circle has area  $90 \text{ cm}^2$  and 0.2 radians. Find its radius and arc length.
- 7) A sector of a circle has central angle  $175^\circ$  and radius 8 inches. Find its arc length.
- 8) A sector of a circle has central angle  $10^\circ$  and arc length 6.5 mm. Find its radius.
- 9) A sector of a circle has central angle  $30^\circ$  and arc length 3.5 cm. Find its area.
- 10) A sector of a circle has central angle  $24^\circ$  and arc length 8.4 cm. Find its area.

- |                                |                               |                  |   |
|--------------------------------|-------------------------------|------------------|---|
| 1) 3 cm<br>9 $\text{cm}^2$     | 3) 5 cm<br>27.5 $\text{cm}^2$ | 5) 10 cm<br>5 cm | 7) 24.43 in<br>8) 37.24 mm                        |
| 2) 15 cm<br>37.5 $\text{cm}^2$ | 4) 5 cm<br>5 $\text{cm}^2$    | 6) 30 cm<br>6 cm | 9) 11.70 $\text{cm}^2$<br>10) 84.22 $\text{cm}^2$ |