

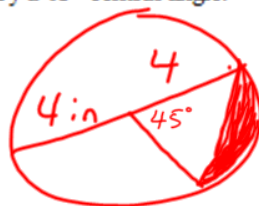
## 9.5 PRACTICE

Draw the picture.

1. Circle  $P$  with radius of 5 m and sector bounded by a  $60^\circ$  minor arc.



2. Circle  $K$  with diameter of 8 inches and segment formed by a  $45^\circ$  central angle.



Find the area of the sector of each circle. Label your answer! Round to the nearest tenth.

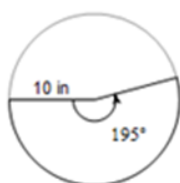
3.



$$\frac{135}{360} \cdot \pi (15)^2$$

$$264.9 \text{ mi}^2$$

4.



$$\frac{195}{360} \cdot \pi (10)^2$$

$$170.1 \text{ in}^2$$

5.

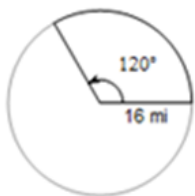
$$r = 12 \text{ in}, \theta = 90^\circ$$



$$\frac{90}{360} \cdot \pi (12)^2 = 113 \text{ in}^2$$

Find the area of the sector of each circle. Label your answer! Express your answer in terms of pi.

6.

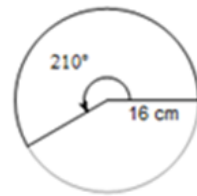


$$\frac{120}{360} \cdot \pi (16)^2$$

$$\frac{1}{3} \cdot 256\pi$$

$$\frac{256}{3} \pi \text{ mi}^2$$

7.



$$\frac{210}{360} \cdot \pi (16)^2$$

$$\frac{7}{12} \cdot 256\pi$$

$$\frac{448}{3} \pi \text{ cm}^2$$

8.

$$r = 10 \text{ m}, \theta = 30^\circ$$



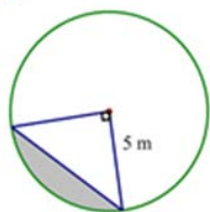
$$\frac{30}{360} \cdot \pi (10)^2$$

$$\frac{1}{12} \cdot 100\pi$$

$$\frac{25}{3} \pi \text{ m}^2$$

Find the area of the segment of each circle. Label your answer! Round to the nearest tenth.

9.



Area Sector

$$\frac{90}{360} \cdot \pi (5)^2$$

$$\boxed{19.63}$$

Area of Triangle

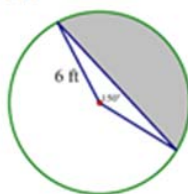


$$\frac{1}{2} (5)(5)$$

$$\boxed{12.5}$$

$$19.63 - 12.5 = \boxed{7.1 \text{ m}^2}$$

10.

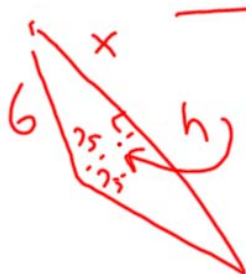


Area of Sector

$$\frac{75}{360} \cdot \pi (6)^2$$

$$\boxed{47.1}$$

Area of Triangle



$$\cos 75 = \frac{h}{6}$$

$$h = 1.55$$

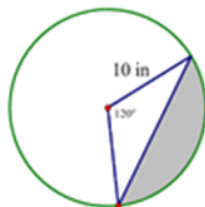
$$\sin 75 = \frac{x}{6}$$

$$x = 5.79$$

$$\frac{1}{2} (11.59)(1.55) = \boxed{8.98}$$

$$47.1 - 8.98 = \boxed{38.1 \text{ ft}^2}$$

11.



Area of sector

$$\frac{120}{360} \cdot \pi (10)^2$$

$$\boxed{104.6}$$

Area of Triangle



$$\cos 60 = \frac{h}{10}$$

$$h = 5$$

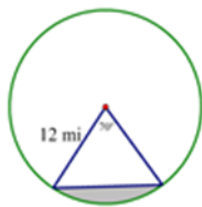
$$\sin 60 = \frac{x}{10}$$

$$x = 8.66$$

$$A = \frac{1}{2} (17.3)(5) = \boxed{43.25}$$

$$104.6 - 43.25 = \boxed{61.35}$$

12.



Area of Sector

$$\frac{70}{360} \cdot \pi (12)^2$$

$$\boxed{87.92}$$

Area of Triangle



$$\cos 35 = \frac{h}{12}$$

$$h = 9.83$$

$$\sin 35 = \frac{x}{12}$$

$$x = 6.88$$

$$A = \frac{1}{2} (13.76)(9.83) = \boxed{67.63}$$

$$87.92 - 67.63 = \boxed{20.3 \text{ mi}^2}$$