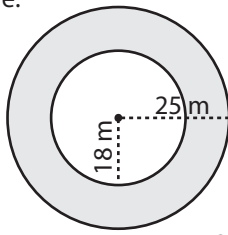


**Concentric Circle - Area**

Example:

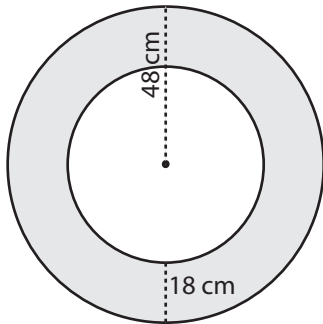


Area = ?

$$\begin{aligned}
 \text{Area of shaded region} &= (\text{Area of outer circle}) - (\text{Area of inner circle}) \\
 &= \pi R^2 - \pi r^2 \\
 &= \pi (R^2 - r^2) \\
 &= 3.14 \times (25^2 - 18^2) \\
 &= 3.14 \times (625 - 324) \\
 &= \mathbf{945.1 \text{ m}^2}
 \end{aligned}$$

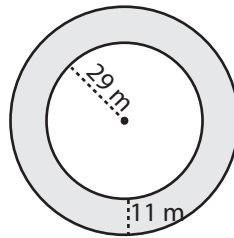
Find the area of each shaded region. Round the answer to tenth decimal place. ( use  $\pi=3.14$  )

1)



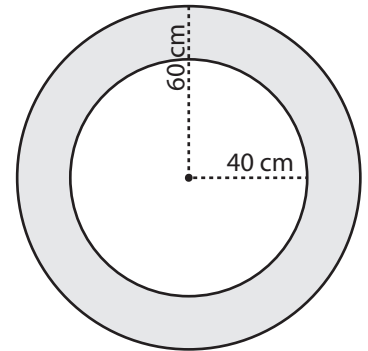
Area =

2)



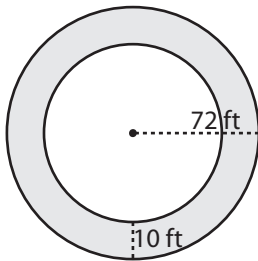
Area =

3)



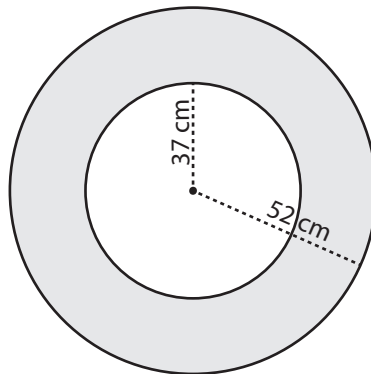
Area =

4)



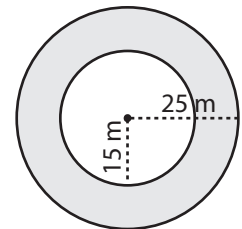
Area =

5)



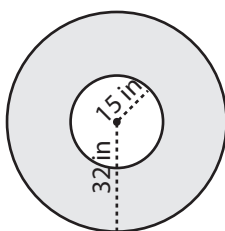
Area =

6)



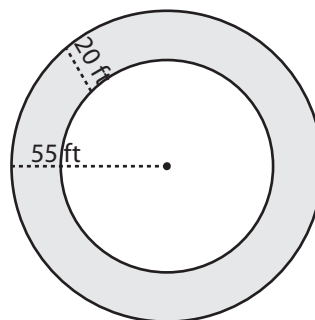
Area =

7)



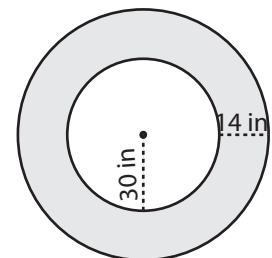
Area =

8)



Area =

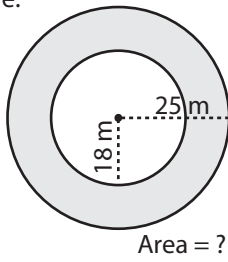
9)



Area =

**Answer Key**

Example:



Area of shaded region = ( Area of outer circle ) - ( Area of inner circle )

$$= \pi R^2 - \pi r^2$$

$$= \pi ( R^2 - r^2 )$$

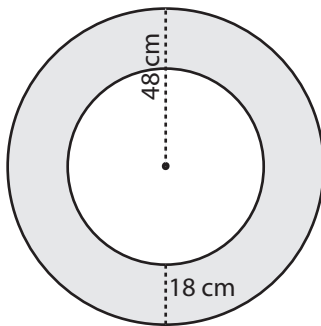
$$= 3.14 \times ( 25^2 - 18^2 )$$

$$= 3.14 \times ( 625 - 324 )$$

$$= \mathbf{945.1 \text{ m}^2}$$

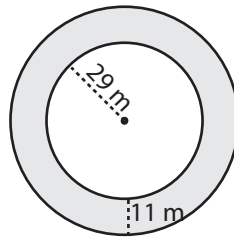
Find the area of each shaded region. Round the answer to tenth decimal place. ( use  $\pi=3.14$  )

1)



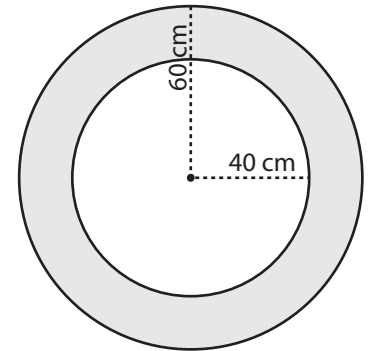
Area = **4408.6 cm<sup>2</sup>**

2)



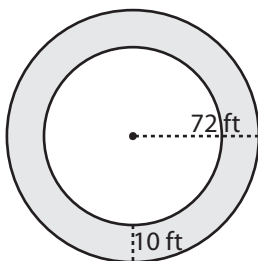
Area = **2383.3 m<sup>2</sup>**

3)



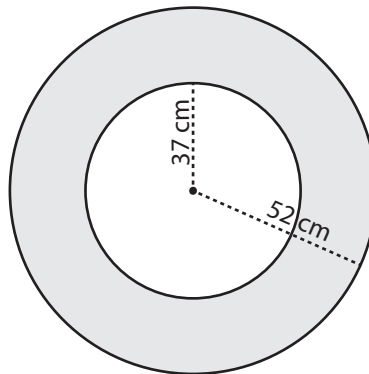
Area = **6280 cm<sup>2</sup>**

4)



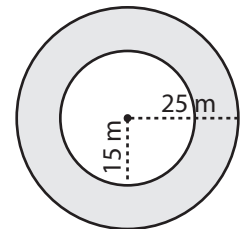
Area = **4207.6 ft<sup>2</sup>**

5)



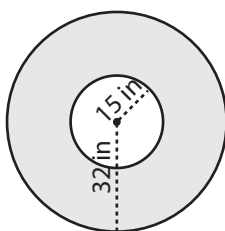
Area = **4191.9 cm<sup>2</sup>**

6)



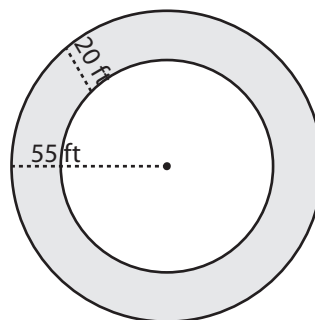
Area = **1256 m<sup>2</sup>**

7)



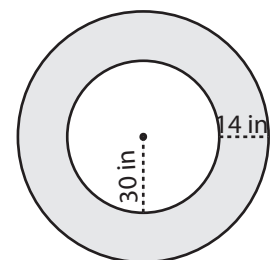
Area = **2508.9 in<sup>2</sup>**

8)



Area = **5652 ft<sup>2</sup>**

9)



Area = **3253 in<sup>2</sup>**