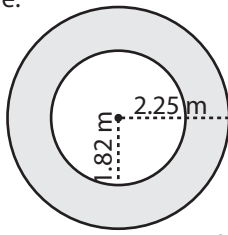


Concentric Circle - Area

Difficult: S1

Example:

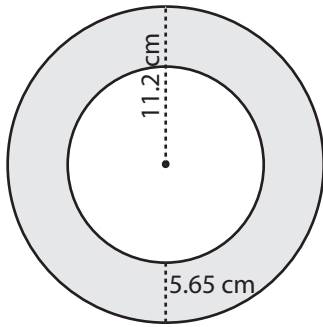


Area = ?

$$\begin{aligned}
 \text{Area of shaded region} &= (\text{Area of outer circle}) - (\text{Area of inner circle}) \\
 &= \pi R^2 - \pi r^2 \\
 &= \pi (R^2 - r^2) \\
 &= 3.14 \times (2.25^2 - 1.82^2) \\
 &= 3.14 \times (5.0625 - 3.3124) \\
 &= \mathbf{5.50 \text{ m}^2}
 \end{aligned}$$

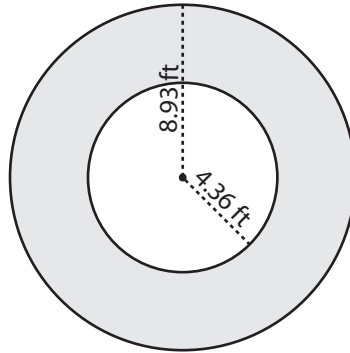
Find the area of each shaded region. Round the answer to two decimal places. (use $\pi=3.14$)

1)



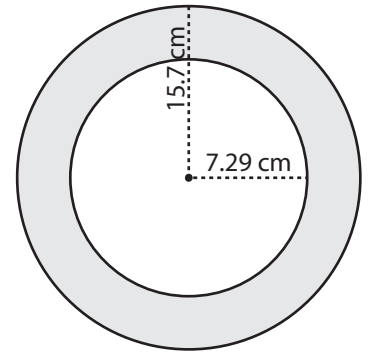
Area =

2)



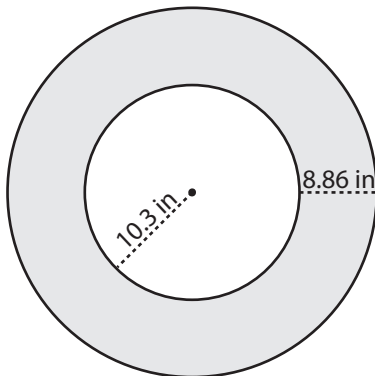
Area =

3)



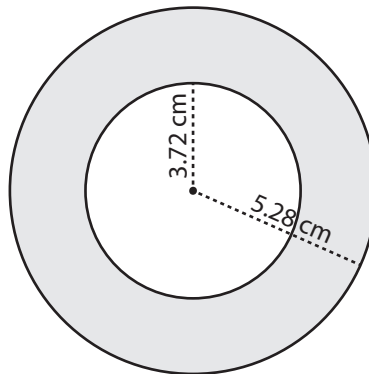
Area =

4)



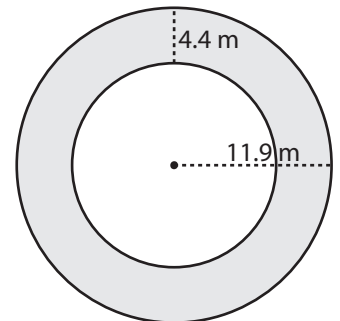
Area =

5)



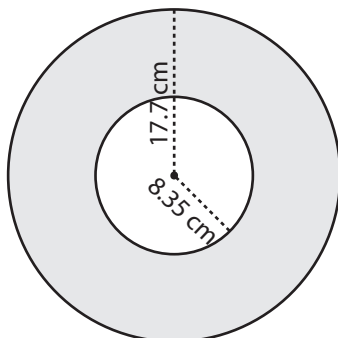
Area =

6)



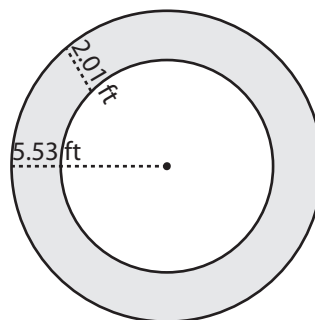
Area =

7)



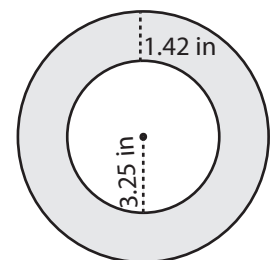
Area =

8)



Area =

9)

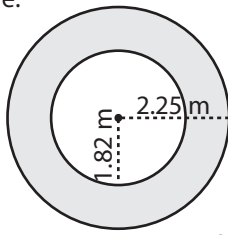


Area =

Concentric Circle - Area

Difficult: S2

Example:

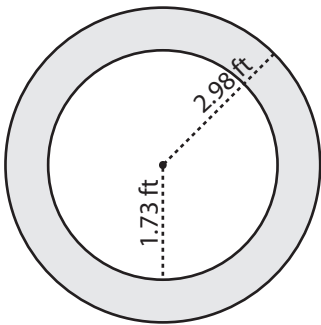


Area = ?

$$\begin{aligned} \text{Area of shaded region} &= (\text{Area of outer circle}) - (\text{Area of inner circle}) \\ &= \pi R^2 - \pi r^2 \\ &= \pi (R^2 - r^2) \\ &= 3.14 \times (2.25^2 - 1.82^2) \\ &= 3.14 \times (5.0625 - 3.3124) \\ &= \mathbf{5.50 \text{ m}^2} \end{aligned}$$

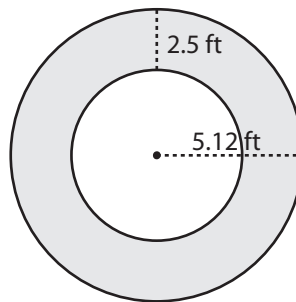
Find the area of each shaded region. Round the answer to two decimal places. (use $\pi=3.14$)

1)



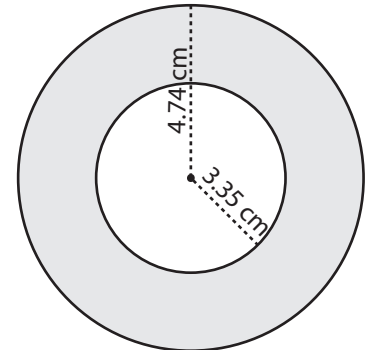
Area =

2)



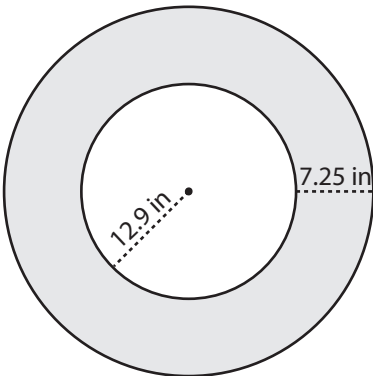
Area =

3)



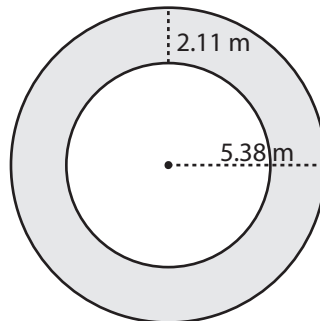
Area =

4)



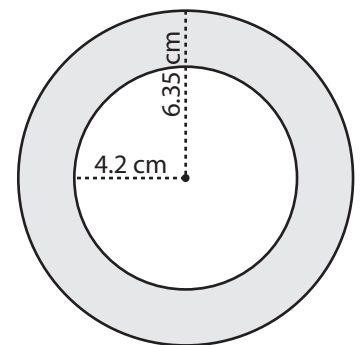
Area =

5)



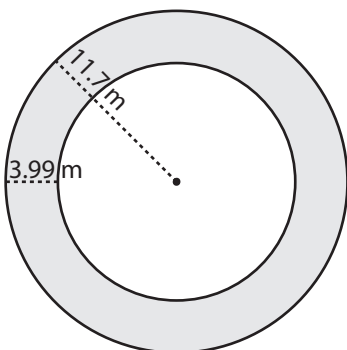
Area =

6)



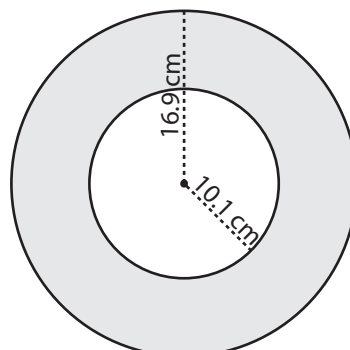
Area =

7)



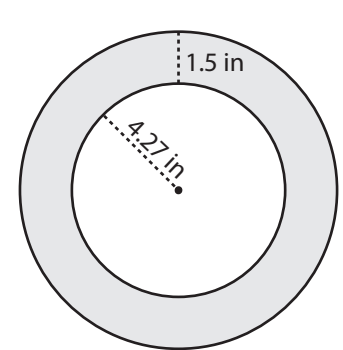
Area =

8)



Area =

9)

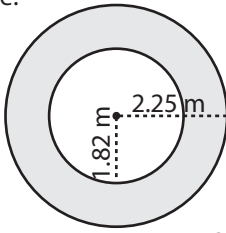


Area =

Concentric Circle - Area

Difficult: S3

Example:



Area = ?

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

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

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

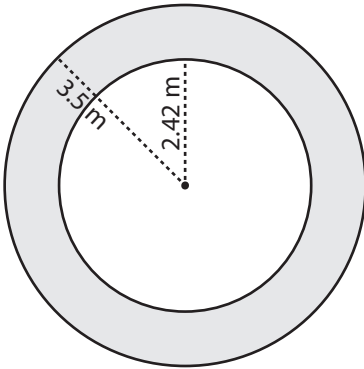
$$= 3.14 \times (2.25^2 - 1.82^2)$$

$$= 3.14 \times (5.0625 - 3.3124)$$

$$= \mathbf{5.50 \text{ m}^2}$$

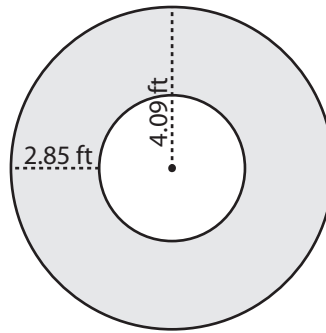
Find the area of each shaded region. Round the answer to two decimal places. (use $\pi=3.14$)

1)



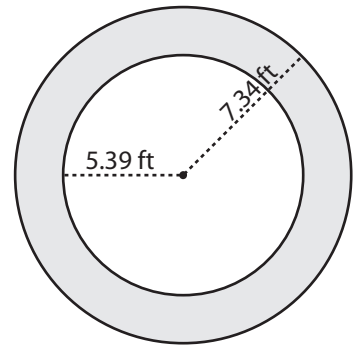
Area =

2)



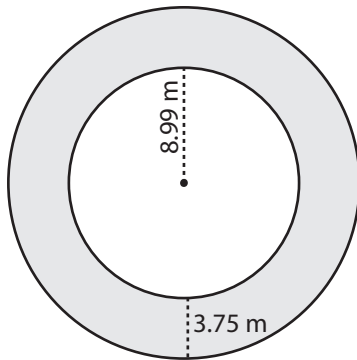
Area =

3)



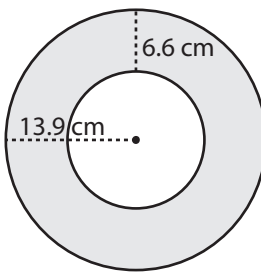
Area =

4)



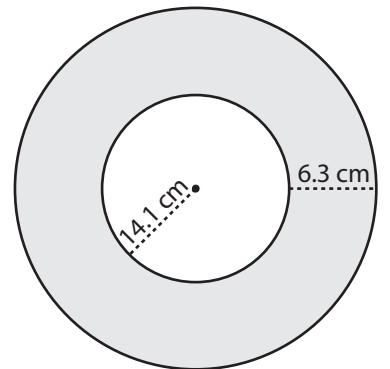
Area =

5)



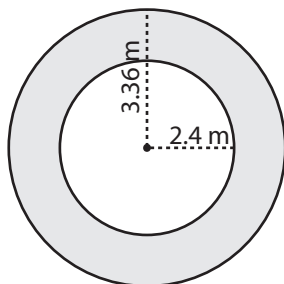
Area =

6)



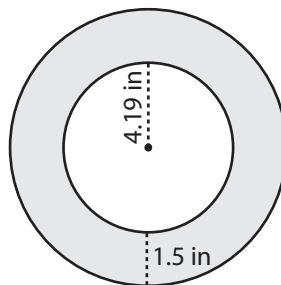
Area =

7)



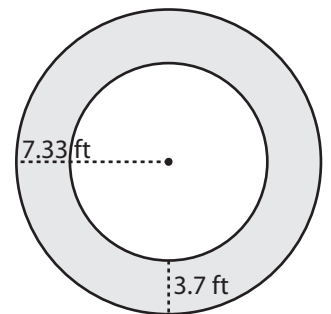
Area =

8)



Area =

9)

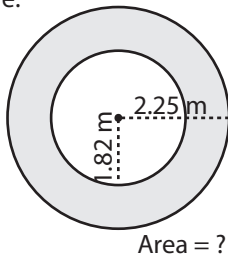


Area =

Concentric Circle - Area

Difficult: S1

Example:



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

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

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

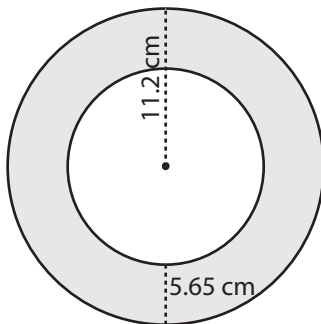
$$= 3.14 \times (2.25^2 - 1.82^2)$$

$$= 3.14 \times (5.0625 - 3.3124)$$

$$= \mathbf{5.50 \text{ m}^2}$$

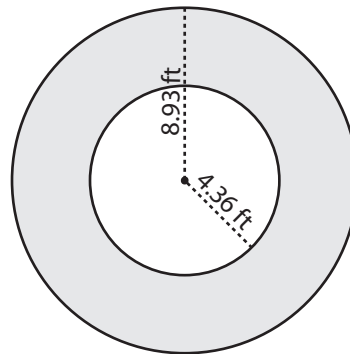
Find the area of each shaded region. Round the answer to two decimal places. (use $\pi=3.14$)

1)



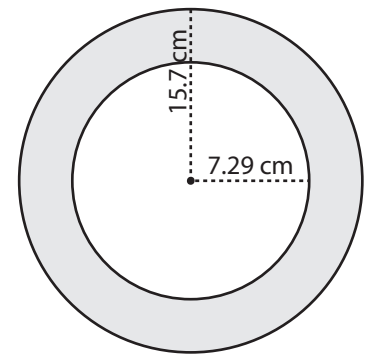
Area = $\mathbf{297.16 \text{ cm}^2}$

2)



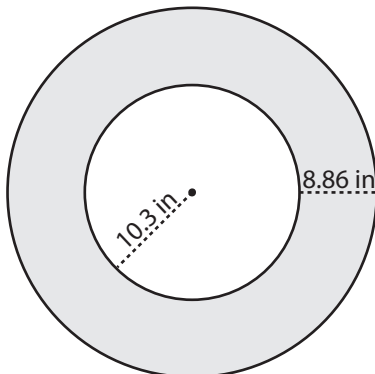
Area = $\mathbf{190.71 \text{ ft}^2}$

3)



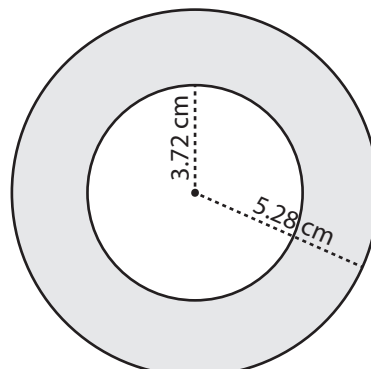
Area = $\mathbf{607.11 \text{ cm}^2}$

4)



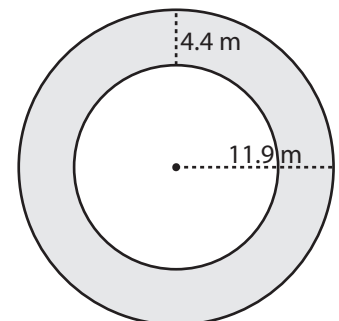
Area = $\mathbf{819.59 \text{ in}^2}$

5)



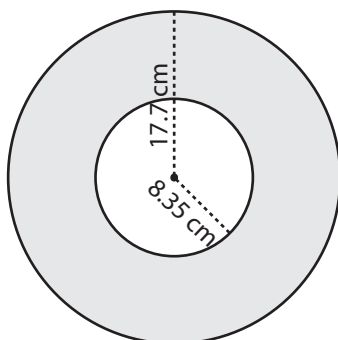
Area = $\mathbf{44.09 \text{ cm}^2}$

6)



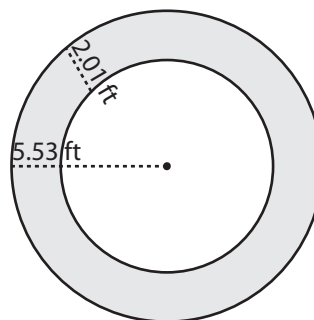
Area = $\mathbf{268.03 \text{ m}^2}$

7)



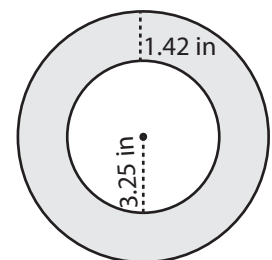
Area = $\mathbf{764.80 \text{ cm}^2}$

8)



Area = $\mathbf{57.12 \text{ ft}^2}$

9)

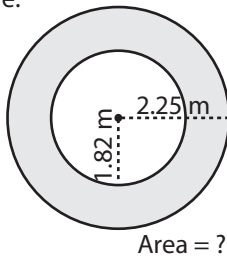


Area = $\mathbf{35.31 \text{ in}^2}$

Concentric Circle - Area

Difficult: S2

Example:



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

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

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

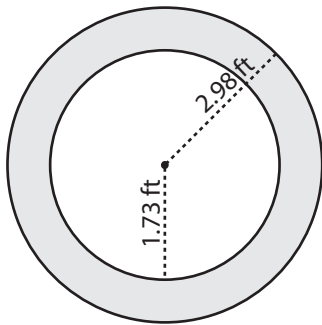
$$= 3.14 \times (2.25^2 - 1.82^2)$$

$$= 3.14 \times (5.0625 - 3.3124)$$

$$= \mathbf{5.50 \text{ m}^2}$$

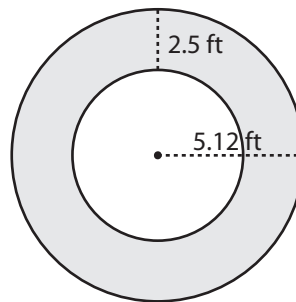
Find the area of each shaded region. Round the answer to two decimal places. (use $\pi=3.14$)

1)



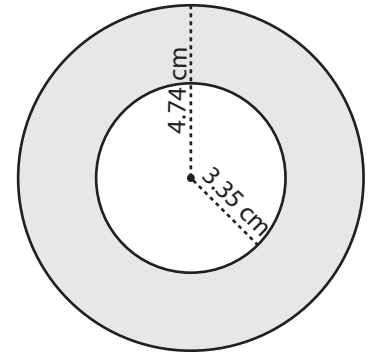
Area = **18.49 ft²**

2)



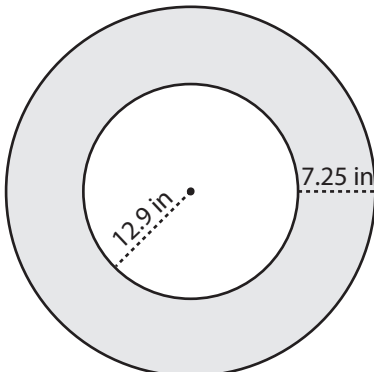
Area = **60.76 ft²**

3)



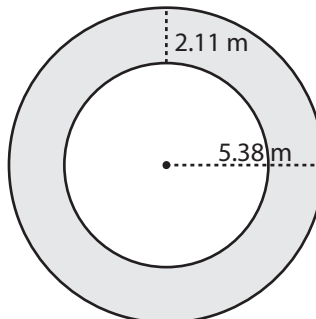
Area = **35.31 cm²**

4)



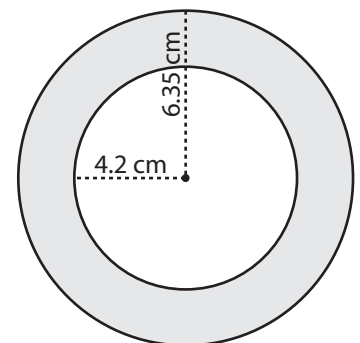
Area = **752.38 in²**

5)



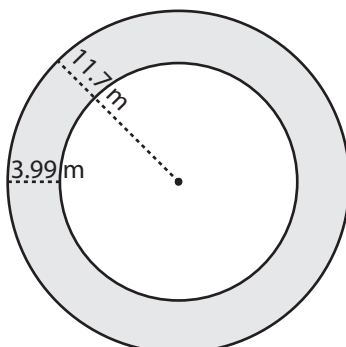
Area = **57.31 m²**

6)



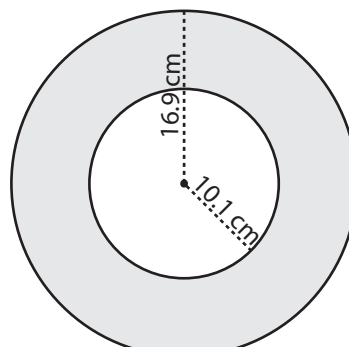
Area = **71.22 cm²**

7)



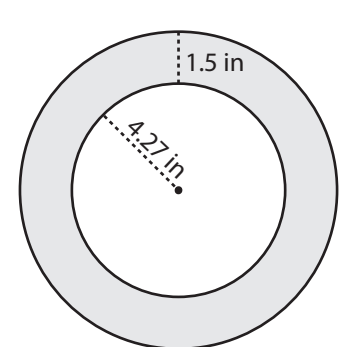
Area = **243.18 m²**

8)



Area = **576.50 cm²**

9)

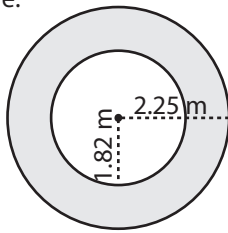


Area = **47.29 in²**

Concentric Circle - Area

Difficult: S3

Example:



Area = ?

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

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

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

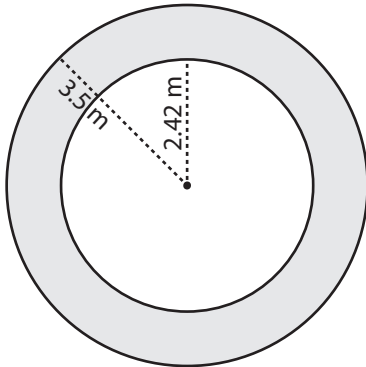
$$= 3.14 \times (2.25^2 - 1.82^2)$$

$$= 3.14 \times (5.0625 - 3.3124)$$

$$= \mathbf{5.50 \text{ m}^2}$$

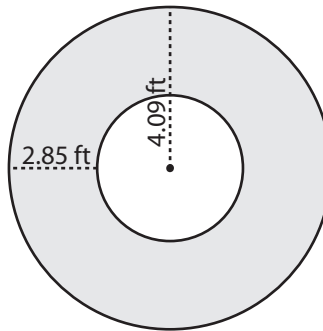
Find the area of each shaded region. Round the answer to two decimal places. (use $\pi=3.14$)

1)



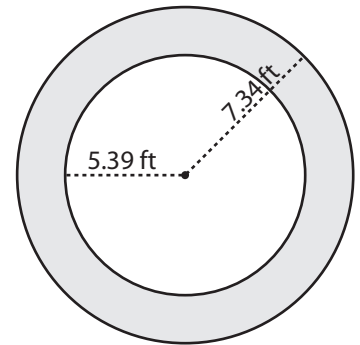
Area = **20.08 m²**

2)



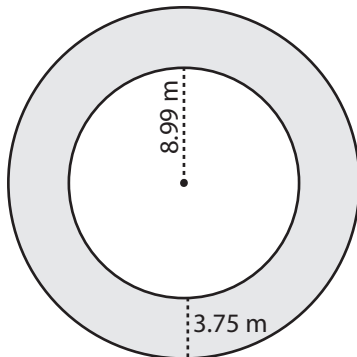
Area = **47.7 ft²**

3)



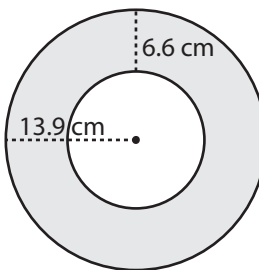
Area = **77.95 ft²**

4)



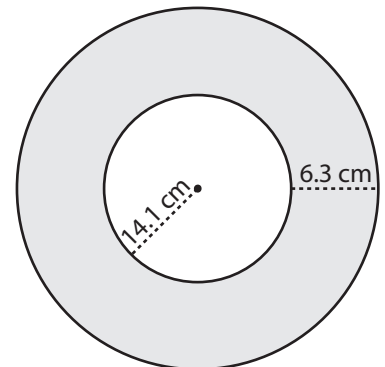
Area = **255.87 m²**

5)



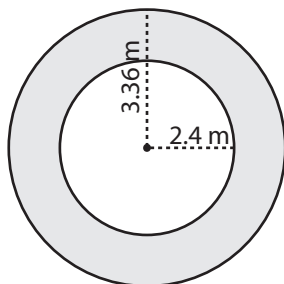
Area = **439.35 cm²**

6)



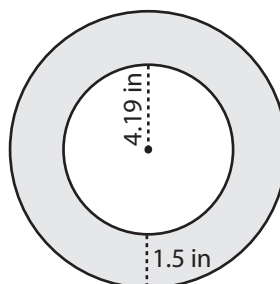
Area = **682.48 cm²**

7)



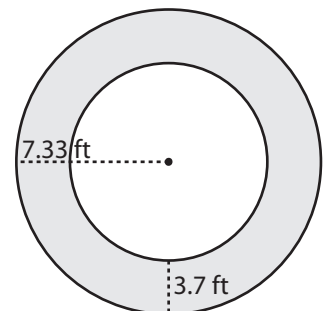
Area = **17.36 m²**

8)



Area = **46.53 in²**

9)



Area = **127.33 ft²**