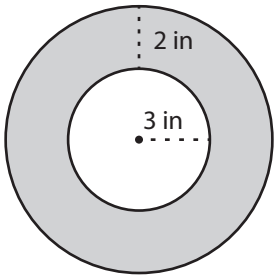
Area of Concentric Circles

Name _____

Score _____

AC:34

Example : Find the area of the shaded region. (Use $\pi = \frac{22}{7}$ or 3.14)



Area of shaded region = Area of the outer circle − Area of the inner circle

$= \pi R^2 - \pi r^2 \quad ; \quad R = (2 + 3 = 5)\text{ in} \ , \ r = 3\text{ in}$

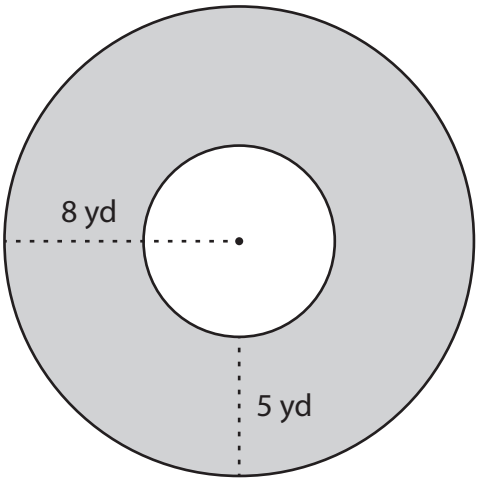
$= \pi(R^2 - r^2)$

$= 3.14 \times (5^2 - 3^2)$

$= 3.14 \times (25 - 9) = 3.14 \times 16 = \mathbf{50.24\ in^2}$

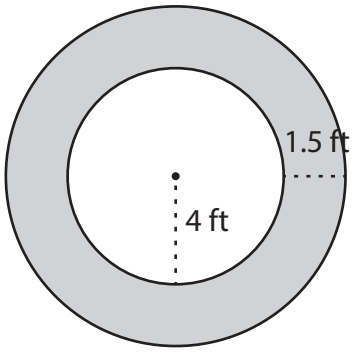
Find the area of the shaded region. (Use $\pi = \frac{22}{7}$ or 3.14)

1)



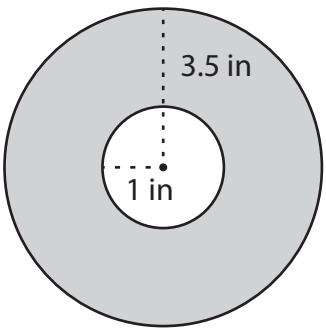
Area =

2)



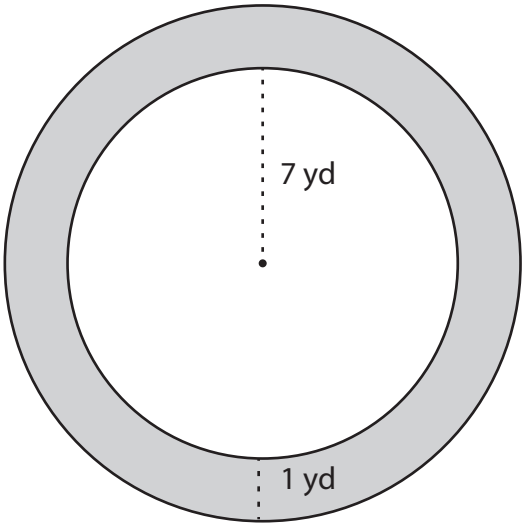
Area =

3)



Area =

4)



Area =

Area of Concentric Circles

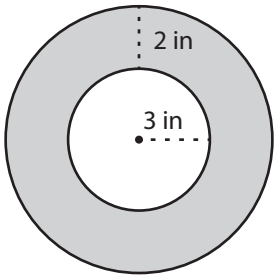
Name _____

Score _____

Answer key

AC:34

Example : Find the area of the shaded region. (Use $\pi = \frac{22}{7}$ or 3.14)



Area of shaded region = Area of the outer circle − Area of the inner circle

$= \pi R^2 - \pi r^2 \quad ; \quad R = (2 + 3 = 5)$ in , $r = 3$ in

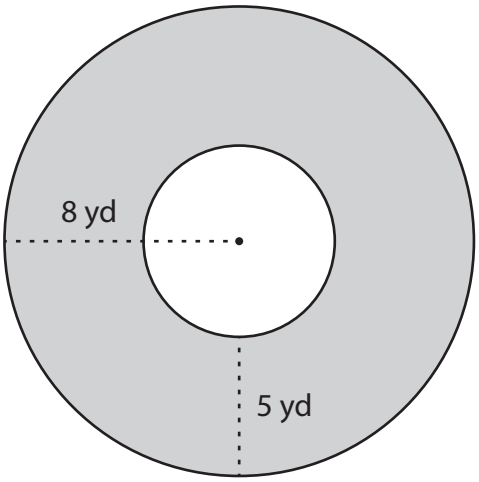
$= \pi(R^2 - r^2)$

$= 3.14 \times (5^2 - 3^2)$

$= 3.14 \times (25 - 9) = 3.14 \times 16 =$ **50.24 in²**

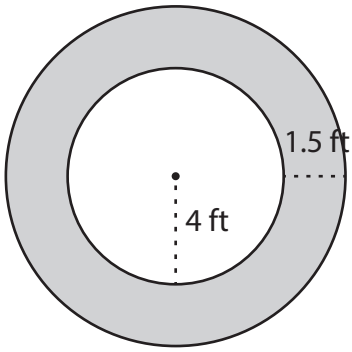
Find the area of the shaded region. (Use $\pi = \frac{22}{7}$ or 3.14)

1)



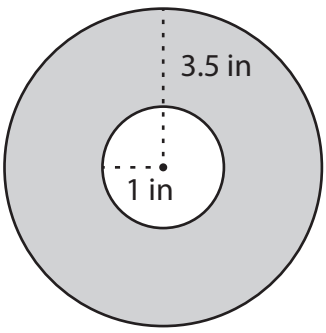
Area = **172.7 yd²**

2)



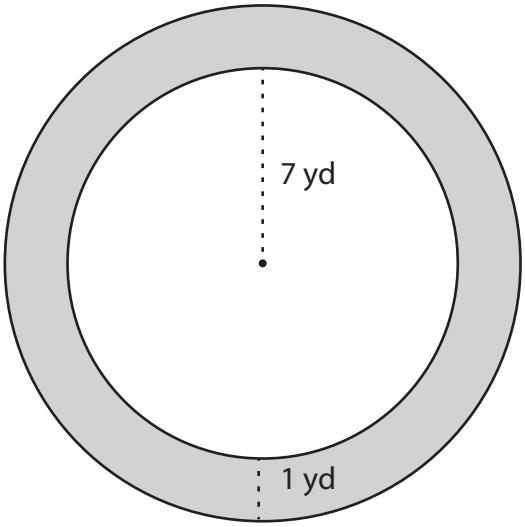
Area = **44.745 ft²**

3)



Area = **35.325 in²**

4)



Area = **47.1 yd²**