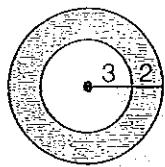


Name \_\_\_\_\_

**Area of a Shaded Region****Example**

Find the area of the shaded region. Leave the answer in terms of  $\pi$ .

**1. Analyze the problem.**

Area of the shaded ring = (Area of ) - (Area of )

**2. Review the needed area formula(s).**

Area of a circle =  $\pi r^2$

**3. Solve.**

$$\text{Shaded area} = 5^2\pi - 3^2\pi = 25\pi - 9\pi = 16\pi \text{ units}^2$$

Match each diagram to its solution equation. Then find the area of each shaded region.

Find and circle each answer in the box below.

- 1.
- $(A \text{ of } \blacksquare) - (A \text{ of } \circlearrowleft) = \underline{\hspace{2cm}} \text{ units}^2$
- 2.
- $(A \text{ of } \blacksquare) - (A \text{ of } \circlearrowleft) = \underline{\hspace{2cm}} \text{ units}^2$
- 3.
- $(A \text{ of } \blacksquare) + (A \text{ of } \circlearrowleft) = \underline{\hspace{2cm}} \text{ units}^2$
- 4.
- $(A \text{ of } \blacksquare) - (A \text{ of } \circlearrowleft + A \text{ of } \circlearrowright) = \underline{\hspace{2cm}} \text{ units}^2$
- 5.
- $(A \text{ of } \blacksquare) - (A \text{ of } \triangle) = \underline{\hspace{2cm}} \text{ units}^2$
- 6.
- $(A \text{ of } \blacksquare) + (A \text{ of } \triangle) = \underline{\hspace{2cm}} \text{ units}^2$
- 7.
- $(A \text{ of } \blacksquare) - (A \text{ of } \circlearrowleft) = \underline{\hspace{2cm}} \text{ units}^2$
- 8.
- $(A \text{ of } \blacksquare) - (A \text{ of } \triangle) = \underline{\hspace{2cm}} \text{ units}^2$

$6 - \pi$	18	$18\pi$	$25\pi - 24$	$39\pi$	60	$64 - 16\pi$	$72 - 18\pi$
2.86	18	56.52	54.50	122	60	13.76	15.48