

# Handout 4: In Between Black And White, There Area Grid

## Areas

## Answers

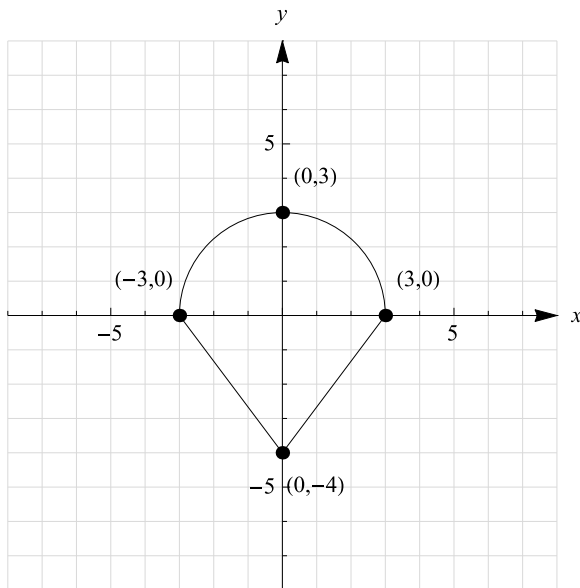


Figure 1

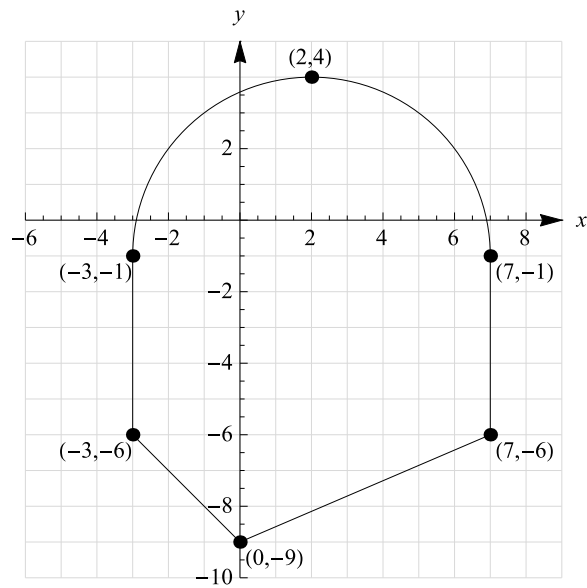


Figure 2

1. What is the area of a square whose side length extends from  $(0, 0)$  to  $(3, 4)$ ?  
 $25 \text{ units}^2$ .
2. A rhombus has vertices at  $(2, 3)$ ,  $(8, 11)$ ,  $(-4, 11)$ , and  $(2, 19)$ . What is its area?  
 $96 \text{ units}^2$ .
3. A trapezoid has vertices at  $(3, 0)$ ,  $(-5, 0)$ ,  $(-5, 8)$ , and  $(0, 8)$ . What is its area?  
 $52 \text{ units}^2$ .
4. A kite has vertices at  $(6, 7)$ ,  $(5, 5)$ ,  $(5, 9)$ , and  $(0, 7)$ . What is its area?  
 $12 \text{ units}^2$ .
5. A rectangle has vertices at  $(3, 0)$ ,  $(0, -3)$ ,  $(-2, 5)$ , and  $(-5, 2)$ . What is its area?  
 $30 \text{ units}^2$ .
6. A circle has an equation  $(x - 3)^2 + (y + 1)^2 = 20$ . What is its area?  
 $20\pi \approx 62.8 \text{ units}^2$ .

7. A circle has a point at  $(2, -29)$  and a center at  $(-10, 6)$ . What is its area?  
 $1369\pi \approx 4300.8 \text{ units}^2$ .
8. What is the area of a quadrilateral with vertices at  $(7, 0)$ ,  $(-5, 0)$ ,  $(0, 8)$ , and  $(7, 6)$ ?  
 $69 \text{ units}^2$ .
9. What is the area of the shape in Figure 1?  
 $26.1 \text{ units}^2$ .
10. What is the area of the shape in Figure 2?  
 $104.3 \text{ units}^2$ .