

Chapter 8 Review

$$(x-h)^2 + (y-k)^2 = r^2$$

Use the information provided to write the standard form equation of each circle.

- 1) Center:  $(-5, -6)$   
 Radius: 6

$$(x+5)^2 + (y+6)^2 = 6^2$$

36

- 2) Center:  $(7, 15)$   
 Radius: 4

- 3) Center:  $(10, -4)$   
 Radius:  $\sqrt{10}$

- 4) Center:  $(-9, -11)$   
 Radius: 4

5)  $x^2 + y^2 - 20x + 22y + 203 = 0$  ~~-203~~

6)  $x^2 + y^2 - 10x + 4y - 5 = 0$

$$(x^2 - 20x + 100) + (y^2 + 22y + 121) = -203 + 100 + 121$$

$$(x-10)^2 + (y+11)^2 = (-18)^2$$

$$(x-10)^2 + (y+11)^2 = 18$$

7)  $x^2 + y^2 - 26x + 22y + 281 = 0$

8)  $x^2 + y^2 + 4x + 12y + 4 = 0$

- 9) Center:  $(8, 11)$   
 Radius: 4

- 10) Center:  $(-10, 16)$   
 Area:  $9\pi$

- 11) Center:  $(-5, 11)$   
 Circumference:  $10\pi$

- 12) Center:  $(-7, 1)$   
 Point on Circle:  $(0, 10)$

## Chapter 8 Review

Use the information provided to write the standard form equation of each circle.

- 1) Center:
- $(-5, -6)$
- 
- Radius: 6

$$(x + 5)^2 + (y + 6)^2 = 36$$

- 2) Center:
- $(7, 15)$
- 
- Radius: 4

$$(x - 7)^2 + (y - 15)^2 = 16$$

- 3) Center:
- $(10, -4)$
- 
- Radius:
- $\sqrt{10}$

$$(x - 10)^2 + (y + 4)^2 = 10$$

- 4) Center:
- $(-9, -11)$
- 
- Radius: 4

$$(x + 9)^2 + (y + 11)^2 = 16$$

- 5)
- $x^2 + y^2 - 20x + 22y + 203 = 0$

$$(x - 10)^2 + (y + 11)^2 = 18$$

- 6)
- $x^2 + y^2 - 10x + 4y - 5 = 0$

$$(x - 5)^2 + (y + 2)^2 = 34$$

- 7)
- $x^2 + y^2 - 26x + 22y + 281 = 0$

$$(x - 13)^2 + (y + 11)^2 = 9$$

- 8)
- $x^2 + y^2 + 4x + 12y + 4 = 0$

$$(x + 2)^2 + (y + 6)^2 = 36$$

- 9) Center:
- $(8, 11)$
- 
- Radius: 4

$$(x - 8)^2 + (y - 11)^2 = 16$$

- 10) Center:
- $(-10, 16)$
- 
- Area:
- $9\pi$

$$(x + 10)^2 + (y - 16)^2 = 9$$

- 11) Center:
- $(-5, 11)$
- 
- Circumference:
- $10\pi$

$$(x + 5)^2 + (y - 11)^2 = 25$$

- 12) Center:
- $(-7, 1)$
- 
- Point on Circle:
- $(0, 10)$

$$(x + 7)^2 + (y - 1)^2 = 130$$