

Name : \_\_\_\_\_

Score : \_\_\_\_\_

Teacher : \_\_\_\_\_

Date : \_\_\_\_\_

## Writing Circle Equations

Use the given information to write the standard form equation of the circle.

- 1) Center: (6,-5)  
Tangent to:  $x = -6$

- 6) Center: (-8,-3)  
Radius: 4

- 2)  $x^2 + y^2 + 22x + 2y + 58 = 0$   
Translated: 4 right and 5 down

- 7) Three Points on the Circle Are:  
(-10,-6), (-9,-5), and (-8,-6)

- 3) Center: (-10,-5)  
Circumference:  $8\pi$

- 8)  $(x + 5)^2 + (y + 6)^2 = 4$   
Translated: 2 right and 3 down

- 4) Center: (3,-1)  
Area:  $16\pi$

- 9) Ends of a Diameter: (-2,4) and (22,4)

- 5)  $x^2 = -y^2 + 2x + 22y - 22$

- 10) Center: (9,-5)  
Point on the Circle: (9,-11)



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## Writing Circle Equations

Use the given information to write the standard form equation of the circle.

1) Center: (6,-5)

Tangent to:  $x = -6$

$$(x - 6)^2 + (y + 5)^2 = 144$$

6) Center: (-8,-3)

Radius: 4

$$(x + 8)^2 + (y + 3)^2 = 16$$

2)  $x^2 + y^2 + 22x + 2y + 58 = 0$

Translated: 4 right and 5 down

$$(x + 7)^2 + (y + 6)^2 = 64$$

7) Three Points on the Circle Are:

(-10,-6), (-9,-5), and (-8,-6)

$$(x + 9)^2 + (y + 6)^2 = 1$$

3) Center: (-10,-5)

Circumference:  $8\pi$

$$(x + 10)^2 + (y + 5)^2 = 16$$

8)  $(x + 5)^2 + (y + 6)^2 = 4$

Translated: 2 right and 3 down

$$(x + 3)^2 + (y + 9)^2 = 4$$

4) Center: (3,-1)

Area:  $16\pi$

$$(x - 3)^2 + (y + 1)^2 = 16$$

9) Ends of a Diameter: (-2,4) and (22,4)

$$(x - 10)^2 + (y - 4)^2 = 144$$

5)  $x^2 = -y^2 + 2x + 22y - 22$

$$(x - 1)^2 + (y - 11)^2 = 100$$

10) Center: (9,-5)

Point on the Circle: (9,-11)

$$(x - 9)^2 + (y + 5)^2 = 36$$

