

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

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

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

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

## Writing Circle Equations

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

- 1) Center: (6,3)  
Tangent to:  $x = -4$

- 6)  $x^2 + (y + 2)^2 = 1$   
Translated: 3 right and 4 down

- 2) Three Points on the Circle Are:  
(4,-4), (11,3), and (18,-4)

- 7) Center: (1,6)  
Point on the Circle: (1,-6)

- 3) Ends of a Diameter:  
(-9,-4) and (-3,-4)

- 8) Center: (-12,10)  
Area:  $121\pi$

- 4) Center: (9,1)  
Circumference:  $12\pi$

- 9)  $x^2 = -y^2 + 18x - 16y - 144$

- 5)  $x^2 + y^2 + 16x + 8y - 64 = 0$   
Translated: 2 left and 3 down

- 10) Center: (-11,-12)  
Radius: 4



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## Writing Circle Equations

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

1) Center: (6,3)

Tangent to:  $x = -4$

$$(x - 6)^2 + (y - 3)^2 = 100$$

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

Translated: 3 right and 4 down

$$(x - 3)^2 + (y + 6)^2 = 1$$

2) Three Points on the Circle Are:

(4,-4), (11,3), and (18,-4)

$$(x - 11)^2 + (y + 4)^2 = 49$$

7) Center: (1,6)

Point on the Circle: (1,-6)

$$(x - 1)^2 + (y - 6)^2 = 144$$

3) Ends of a Diameter:

(-9,-4) and (-3,-4)

$$(x + 6)^2 + (y + 4)^2 = 9$$

8) Center: (-12,10)

Area:  $121\pi$

$$(x + 12)^2 + (y - 10)^2 = 121$$

4) Center: (9,1)

Circumference:  $12\pi$

$$(x - 9)^2 + (y - 1)^2 = 36$$

9)  $x^2 = -y^2 + 18x - 16y - 144$

$$(x - 9)^2 + (y + 8)^2 = 1$$

5)  $x^2 + y^2 + 16x + 8y - 64 = 0$

Translated: 2 left and 3 down

$$(x + 10)^2 + (y + 7)^2 = 144$$

10) Center: (-11,-12)

Radius: 4

$$(x + 11)^2 + (y + 12)^2 = 16$$

