**10th Grade Math Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Circles in the Plane**

Here is an equation for a circle, in General Form (like those we saw yesterday):

1. What are *h*, and *k* in this example?
2. What is the center for this circle?
3. What is its radius? (recall that )
4. Write out the following in expanded form:
5. Can you write out the full equation without any parentheses?  
     
     
     
     
     
     
   What do you notice about the coefficients?

**Going the other way:**

Here is another equation for a circle:

This is written in Standard Form.

Can you identify:

1. *h*, the x-coordinate of the center
2. *k*, the y-coordinate of the center
3. *r*, the radius (note: you need a couple of steps to get the radius)

**Practice Problems Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

1.

Text, letter

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2.

Text

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3. What is an equation of a circle whose center is at  and is tangent to the line ?

1) 

2) 

3) 

4) 

4.  
Text, letter

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5.

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7.

Text, letter

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