

**Quiz: HSG.GPE.A.1**

1. The general form of the equation of a given circle is  $x^2 + y^2 + 4x + 2y - 4 = 0$ .

What is the general form of the equation of a circle that is concentric to the given circle and passes through the point (1, 3)?

\_\_\_\_\_

*Write your answer in the space provided.*

2. The general form of the equation of a circle with center  $A$  is  $x^2 + y^2 + 6x - 10y + 9 = 0$ .

The general form of the equation of a circle with center  $B$  is  $x^2 + y^2 - 10x + 2y + 1 = 0$ .

What is the general form of the equation of the circle that has diameter  $\overline{AB}$ ?

The general form of the equation of the circle that has diameter  $\overline{AB}$  is \_\_\_\_\_.

*Write your answer in the space provided.*

3. The general form of the equation of a circle with is  $x^2 + y^2 + Ax + By + C = 0$ .

What are the center and radius of the circle?

The center of the circle is the point \_\_\_\_\_.

The radius of the circle is \_\_\_\_\_.

*Write your answers in the spaces provided.*

