

Name: _____

Circle

1) Describe the graphs of:

1) $(x - 1)^2 + (y + 4)^2 = -9$

2) $(x - 1)^2 + (y + 4)^2 = 0$

2) Find an equation for the circle of radius 4 centered at $(-5, 3)$

3) Determine whether the equation represents a circle, a point, or no graph. If the equation represents a circle, find the center and the radius.

1) $x^2 + y^2 - 2x - 4y - 11 = 0$

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

3) $2x^2 + 2y^2 + 4x - 4y = 0$

4) $6x^2 + 6y^2 - 6x + 6y = 3$

5) $x^2 + y^2 + 2x + 2y + 2 = 0$

6) $x^2 + y^2 - 4x - 6y + 13 = 0$

7) $9x^2 + 9y^2 = 1$

8) $x^2 + y^2 + 10y + 26 = 0$

9) $x^2 + y^2 - 10x - 2y + 29 = 0$

10) $16x^2 + 16y^2 + 40x + 16y - 7 = 0$

11) $4x^2 + 4y^2 - 16x - 24y = 9$

4) Find the standard equation of the circle satisfying the given conditions.

1) Center $(3, -2)$; radius = 4.

2) Center $(1, 0)$; diameter = $\sqrt{8}$

3) Center $(-4, 8)$; circle is tangent to the x-axis.

4) Center $(5, 8)$; circle is tangent to the y-axis.

5) Center $(-3, -4)$; circle passes through the origin.

6) Center $(4, -5)$; circle passes through $(1, 3)$.

7) A diameter has endpoints $(2, 0)$ and $(0, 2)$.

8) A diameter has endpoints $(6, 1)$ and $(-2, 3)$