

Algebra 2: Chapter 10 Practice Quiz

Name \_\_\_\_\_

Directions: Read all instructions carefully. Show all work!

\_\_\_ 1) Find the radius and center of  $(x+1)^2 + y^2 = 12$ .

A.  $r = 12; C(1, 0)$

C.  $r = 2\sqrt{3}; C(-1, 0)$

B.  $r = \sqrt{12}; C(-1, 1)$

D.  $r = 3\sqrt{2}; C(1, 0)$

\_\_\_ 2) A parabola has the equation  $x^2 = -8y$ . Find the directrix for this parabola.

A.  $y = 8$

B.  $x = 2$

C.  $y = 2$

D.  $y = -8$

\_\_\_ 3) Which of these parabolas opens to the left?

A.  $y = 4x^2$

B.  $x = 3y^2$

C.  $y = -6x^2$

D.  $x = -2y^2$

\_\_\_ 4) What is the equation of the circle with  $C(0, 0)$  and radius 7?

A.  $x^2 - y^2 = 14$

B.  $y^2 = 49x$

C.  $(x - 7)^2 + (y - 7)^2 = 49$

D.  $x^2 + y^2 = 49$

5) Write the equation of each parabola with its vertex at the origin:

a. focus at  $(0, 2)$

b. directrix at  $x = 1$

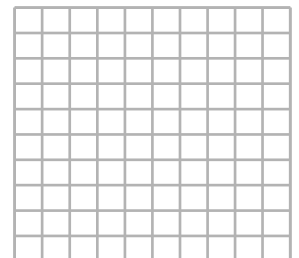
6) Write the equation of each circle:

a.  $C(0, -4)$ , radius = 10

b.  $C(5, -3)$ , radius = 4

7) Write each equation in standard form. Then, graph it.

a.  $x^2 + y^2 + 10x - 6y + 30 = 0$



b.  $y^2 + 4x - 4y + 16 = 0$

