

Circles – Equation of a Circle

G.GPE.A.1

Hw Section 11.3

Name _____

Determine the coordinates of the center and the measure of the radius for each circle whose equation is given.

#1) $(x - 7)^2 + (y + 10)^2 = 49$

Center = $(7, -10)$

Radius = 7

#2) $144 = (x + 3)^2 + y^2$

Center = $(-3, 0)$

Radius = 12

#3) $(x - 8)^2 + (y + 1)^2 = 100$

Center = $(8, -1)$

Radius = 10

#4) $36 = (x + 2)^2 + (y - 4)^2$

Center = $(-2, 4)$

Radius = 6

#5) $x^2 + (y + \sqrt{3})^2 - 17 = 0$

$(x - 0)^2 + (y - (-\sqrt{3}))^2 = 17$

Center = $(0, -\sqrt{3})$

Radius = $\sqrt{17}$

#6) $(x + 21)^2 + (y + 11)^2 - 17 = 8$

$(x - (-21))^2 + (y - (-11))^2 = 25$

Center = $(-21, -11)$

Radius = 5

The coordinates of the center and the measure of the radius of a circle are given. Write an equation of the circle.

#7) $(-2, -1), 7$

$(x - (-2))^2 + (y - (-1))^2 = 7^2$

$(x + 2)^2 + (y + 1)^2 = 49$

#8) $(0, 0), 4$

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

$x^2 + y^2 = 16$

#9) $(13, -15), \sqrt{5}$

$(x - 13)^2 + (y - (-15))^2 = (\sqrt{5})^2$

$(x - 13)^2 + (y + 15)^2 = 5$

#10) $(4, 9), \sqrt{8}$

$(x - 4)^2 + (y - 9)^2 = (\sqrt{8})^2$

$(x - 4)^2 + (y - 9)^2 = 8$

#11) $(0, -5), 12$

$(x - 0)^2 + (y - (-5))^2 = 12^2$

$x^2 + (y + 5)^2 = 144$

#12) $(0, -4), 1$

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

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

Circles – Equation of a Circle

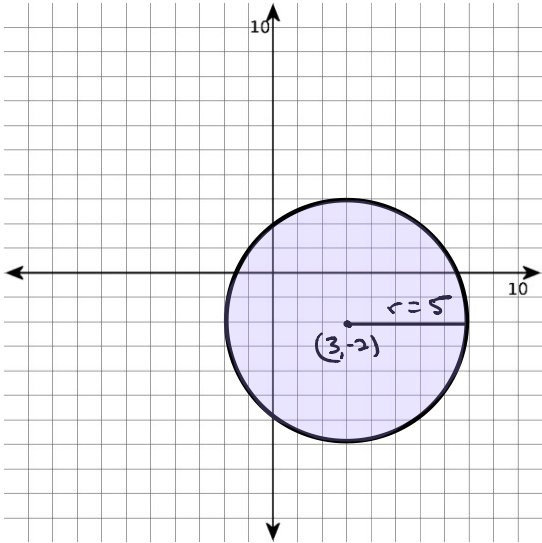
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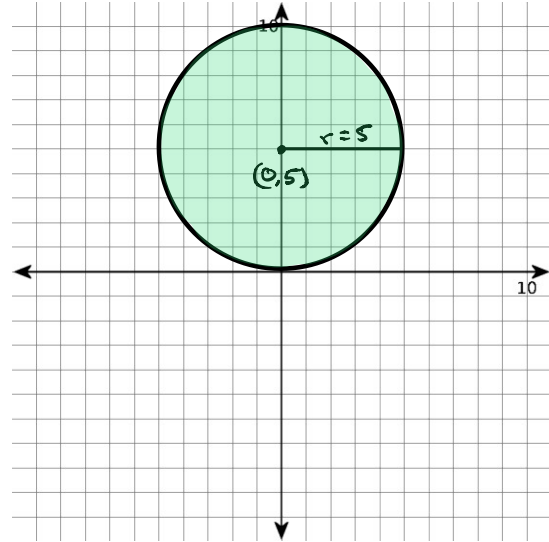
Name _____

Graph each equation.

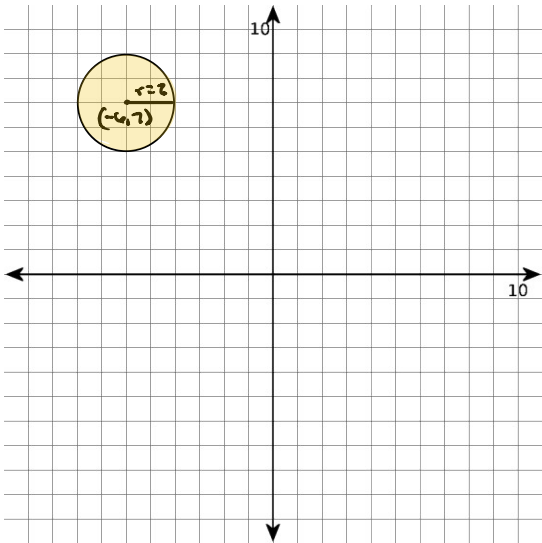
#13) $(x - 3)^2 + (y + 2)^2 = 25$



#15) $x^2 + (y - 5)^2 = 25$



#14) $(x + 6)^2 + (y - 7)^2 = 4$



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

