

Math Worksheets

Standard Form of a Circle

 Write the standard form equation of each circle.

1) $x^2 + y^2 - 10x - 4y + 28 = 0$

6) Center: $(-8, -14)$, Radius: 8

2) $y^2 + 6x + x^2 = 20y - 93$

7) Center: $(-13, -7)$, Area: 9π

3) $x^2 + y^2 - 6y + 10 = 10$

8) Center: $(-10, -15)$, Area: 36π

4) $16x + x^2 - 6y = -24 - y^2$

9) Center: $(-5, 4)$, Circumference: 4π

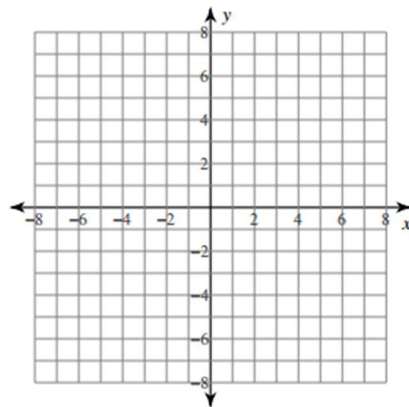
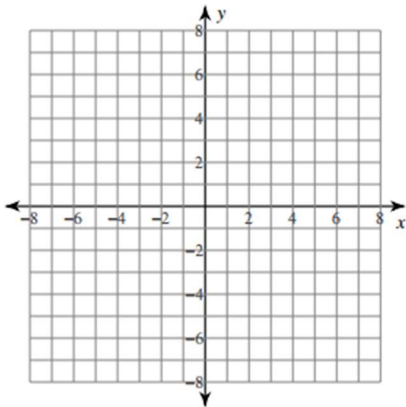
5) Center: $(-4, -5)$, Radius: 5

10) Center: $(12, 11)$, Circumference: $2\pi\sqrt{17}$

 Identify the center and radius of each. Then sketch the graph.

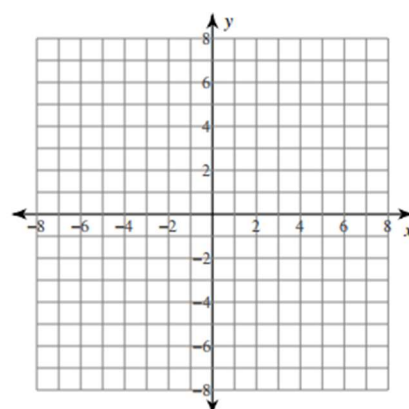
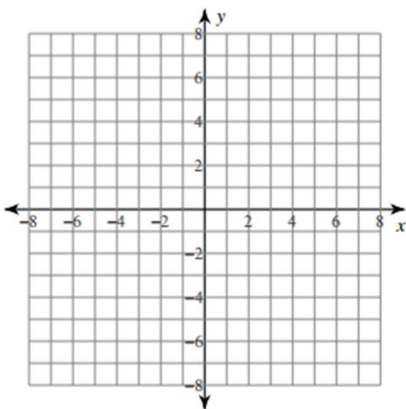
11) $(x - 3)^2 + (y + 4)^2 = 12$

12) $(x - 2)^2 + y^2 = 9$



13) $(x - 1)^2 + (y + 4)^2 = 8$

14) $(x + 12)^2 + (y - 4)^2 = 9$



Answers of Worksheets

Standard Form of a Circle

1) $(x - 5)^2 + (y - 2)^2 = 1$

2) $(x + 3)^2 + (y - 10)^2 = 16$

3) $x^2 + (y - 3)^2 = 9$

4) $(x + 8)^2 + (y - 3)^2 = 49$

5) $(x + 4)^2 + (y + 5)^2 = 25$

11) Center: $(3, -4)$, Radius: $\sqrt{12}$

6) $(x + 8)^2 + (y + 14)^2 = 64$

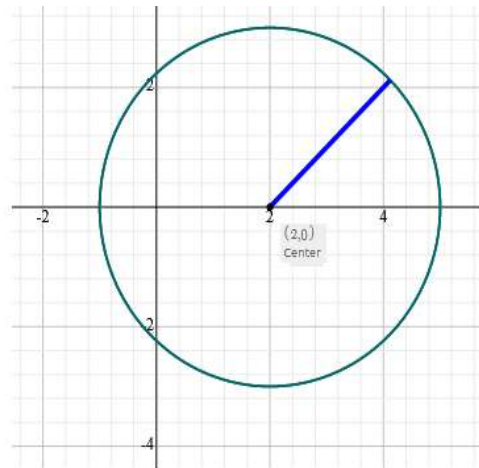
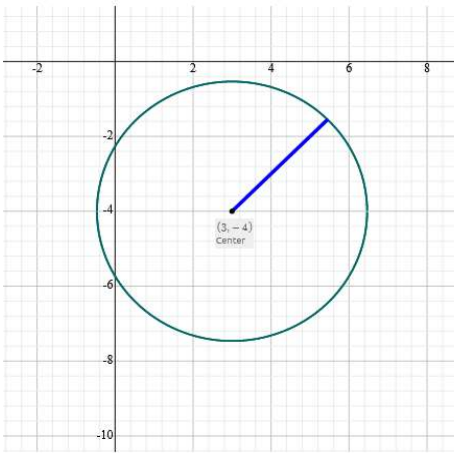
7) $(x + 13)^2 + (y + 7)^2 = 9$

8) $(x + 10)^2 + (y + 15)^2 = 36$

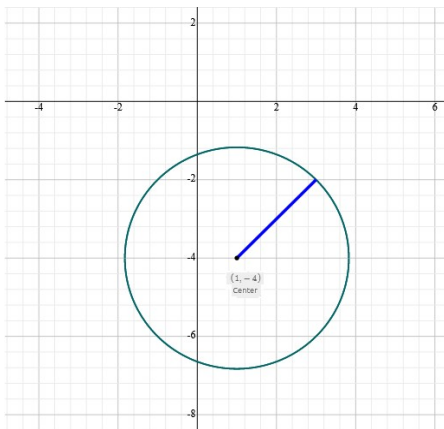
9) $(x + 5)^2 + (y - 4)^2 = 4$

10) $(x - 12)^2 + (y - 11)^2 = 17$

12) Center: $(2, 0)$, Radius: 3



13) Center: $(1, -4)$, Radius: $\sqrt{8}$



14) Center: $(-12, 4)$, Radius: 3

