

Name: _____ Period: _____

12-5 Equations of Circles

An equation of a circle with center (h, k) and radius r is
 $(x - h)^2 + (y - k)^2 = r^2$.

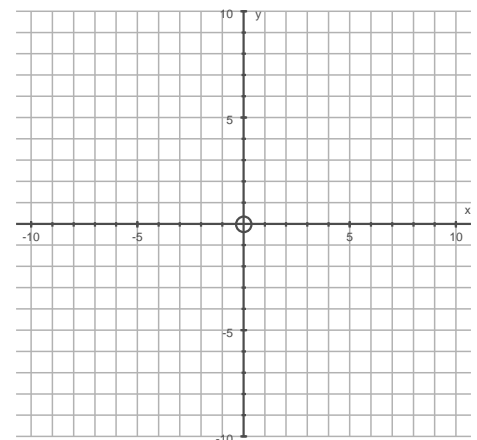
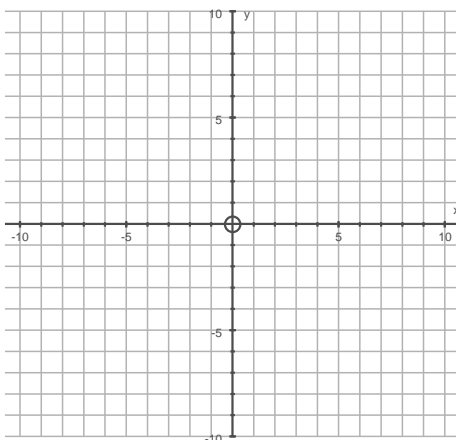
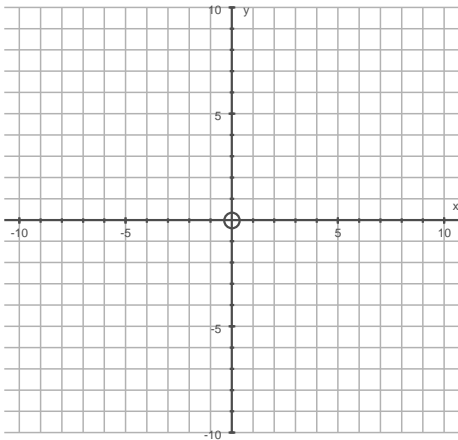
The equation $(x - h)^2 + (y - k)^2 = r^2$ is in **standard form**.

Write the standard equation of each circle.

1. center $(2, -8)$; $r = 9$ 2. center $(0, 3)$; $r = 7$ 3. center $(0.2, 1.1)$; $r = 0.4$

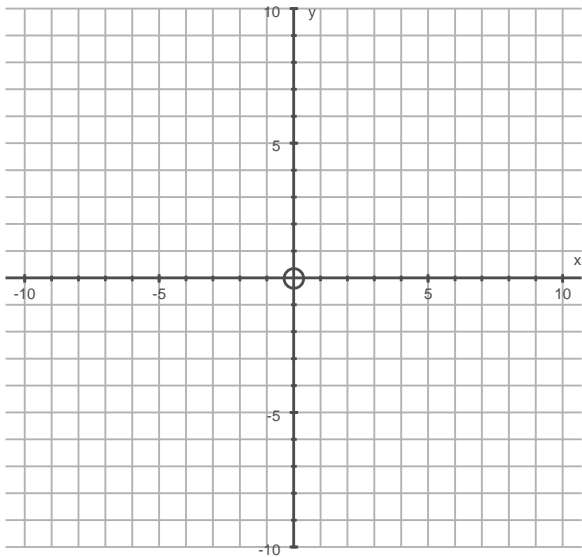
4. center $(5, -1)$; $r = 12$ 5. center $(-6, 3)$; $r = 8$ 6. center $(-9, -4)$; $r = \sqrt{5}$

7. center $(0, 0)$; $r = 4$ 8. center $(-4, 0)$; $r = 3$ 9. center $(-1, -1)$; $r = 1$

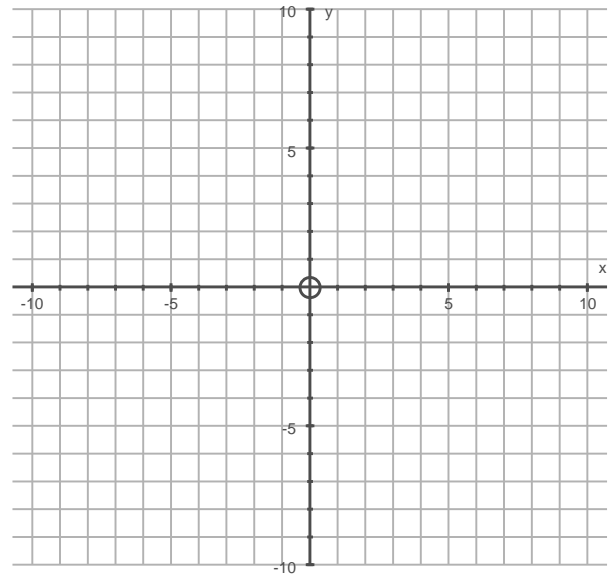


Write the standard equation of the circle with the given center that passes through the given point.

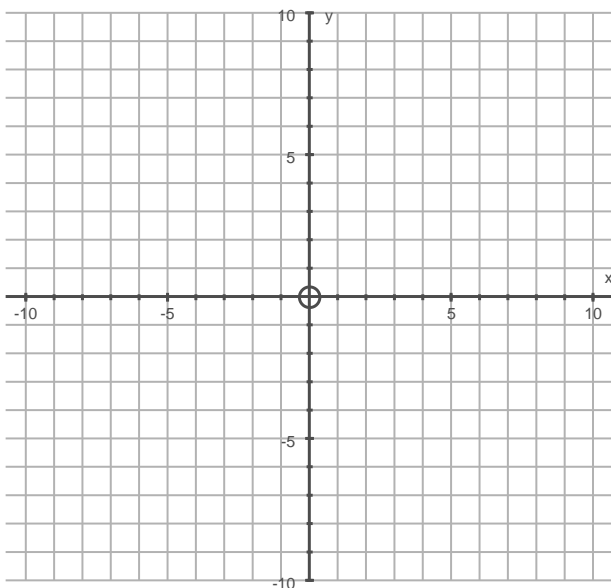
10. center $(-2, 6)$; point $(-2, 10)$



11. center $(1, 2)$; point $(0, 6)$



12. center $(7, -2)$; point $(1, -6)$



13. center $(-1, -4)$; point $(-4, 0)$

