

### Equation of a Circle Questions

1. Drag point B to change the radius to 2, 3, 6, 10. How does this change the equation of the circle?
2. Using a radius of 3, drag point A to change the center of the circle to (5, 3) , then change it to (-5, 3). How does this change the equation of the circle?
3. Using a radius of 3, drag point A to change the center of the circle to (2, 6) , then change it to (2, -6). How does this change the equation of the circle?
4. Using a radius of 3, drag point A to change the center of the circle to (4, 0), then change it to (0, 4). How does this change the equation of the circle?
5. Write the equation of a circle with a center of (-2, 1) and a radius of 7. Check your answer by graphing the circle.
6. Write the equation of a circle with a center (0, 0) and a radius of 9. Check your answer by graphing.
7. Write the equation of a circle with a center (h, k) and a radius of  $r$  .