Homework: Distance and Midpoint Formulas; Circles - Key

In Problems 1-5, find the distance between each pair of points

1. $d = 13$	2. $d = 5$
3. $d = 6\sqrt{2}$	4. $d = 2\sqrt{3}$
5. $d = \sqrt{17}$	

In Problems 6-8, find the midpoint of each line segment with the given endpoints

6. $(-9,4)$	7. $(-4,2)$
8. $\left(\frac{7\sqrt{3}}{2},0\right)$	

In Problems 9-10, write the standard form of the equation of the circle with the given center and radius

9. $(x-8)^2+(y-2)^2=16$	10. $(x+5)^2+(y-2)^2=7$

In Problems 11-13, give the center and radius of the circle described by the equation.

11. $Center:(0,0), r=3$	12. $Center:(-8,2), r=4$
13. $Center:(0,5), r=2$	

In Problems 14-16, complete the square and write the equation in standard form. Then give the center and radius of each circle.

14. $Center:(-6,4), r=3$	15. $Center:(8,-2), r=1$
16. $Center:\left(\frac{1}{2},\frac{-3}{2}\right), r=\frac{3}{2}$	