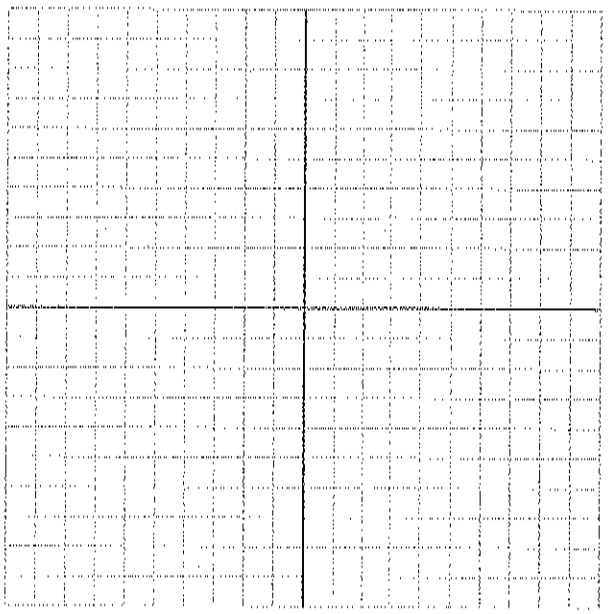
Geometry
Homework

Equation of a Circle
Do Work on Sheet

When necessary, give all answers in simplest radical form.



1) What is the radius of a circle whose center is the origin and that passes through the point P(8, -6)?

2) What is the radius of a circle whose center is the origin and that passes through the point P(-4, -2)?

3) Which equation represents a circle whose center is (3, -2)?

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

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

4) Write an equation of a circle with center at (0, 0) and diameter of 24 units.

5) Write the equation of the circle with center at (3, 4) and radius of 5.

6) Write the equation of the circle with center at (8, -3) and radius of 9.

7) Write the equation of the circle whose radius is 6 units with center at the origin.

8) Write the equation of the locus of points 5 units from the point (-2, 6).

9) Identify the radius and center of a circle whose equation is $(x - 4)^2 + (y + 7)^2 = 49$.

10) Identify the radius and center of a circle whose equation is $(x - 3)^2 + (y - 5)^2 = 196$.

11) What is the locus of points equidistant from the sides of $\angle ABC$?

12) What is the locus of points 10 feet from a tree?

13) A fence is built in a straight line along a road. What is the locus of points 2 yards away from the fence?