

Circles in the Coordinate Plane Guide Notes

Two Basic Equation of the Circle

CENTER RADIUS FORM: $(x - a)^2 + (y - b)^2 = r^2$

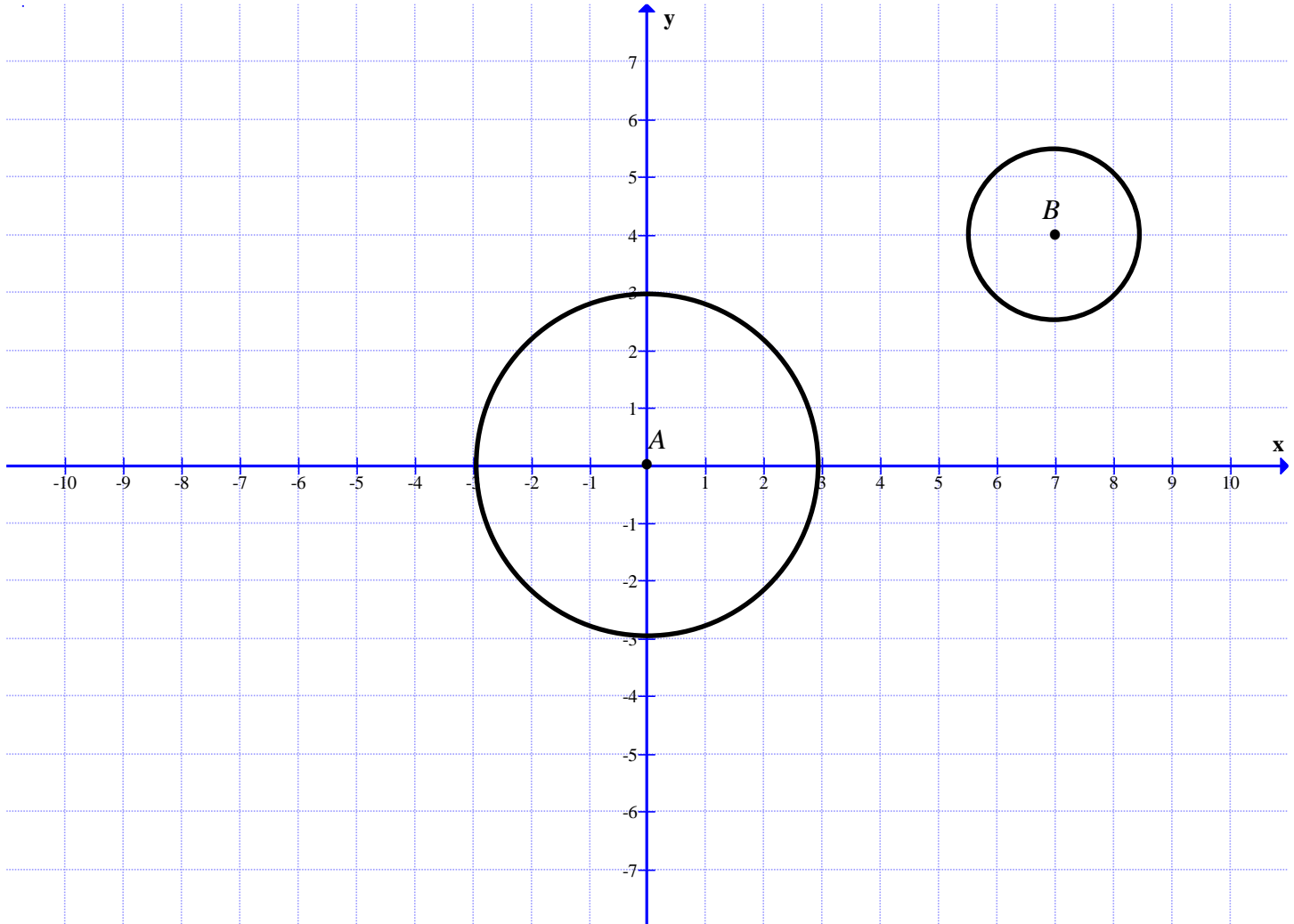
GENERAL FORM: $x^2 + y^2 + Ax + By + C = 0$

Where: (a, b) are the coordinates of center of the circle; r is the radius; A, B, and C are constants.

CENTER RADIUS AT THE ORIGIN: $x^2 + y^2 = r^2$

Sample Problem 1:

Find the center radius form of the following circle.



Name: _____ Period: _____ Date: _____

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Sample Problem 5: Changing general formula to center radius form.

9. $x^2 + y^2 + 8x - 2y - 8 = 0$

10. $x^2 + 6x - 2y - y^2 + 2 = 0$