Introduction to Analytic Geometry

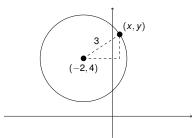


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Equation of a Circle

Find the set of all points that are a distance of 3 from the point $\left(-2,4\right)$.



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

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Preliminaries and Objectives

Preliminaries

- Cartesian Coordinate System
- Slope Formula
- Pythagorean Theorem

Objectives

Recap

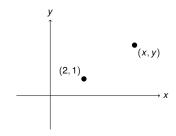
• Write equations involving arbitrary points

- Let (x, y) be an arbitrary point
- Write equations corresponding to the geometric description

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Arbitrary Points



$$\frac{2}{3} = \frac{y-1}{x-1}$$

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