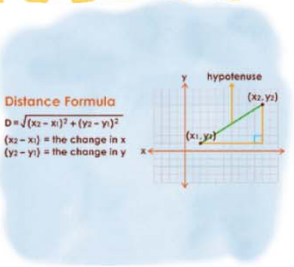
Name : Class :

Distance formula

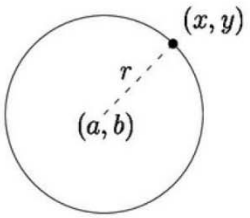


The distance formula in coordinate geometry is used to calculate the distance between two given points

Distance formula

1) Circle

A **circle** is the set of points a fixed distance r from a center (a, b):



By the distance formula, $r = \sqrt{(x-a)^2 + (y-b)^2}$

Equation of Circle in Standard Form: $\boxed{(x-a)^2 + (y-b)^2 = r^2}$

2) Find the equation of a circle with ceter (2, -1) and radius 4

Solution

The equation of a circle in standard form: $(x-a)^2 + (y-b)^2 = r^2$

Thus, we have: $(x-2)^2 + (y+1)^2 = 4^2$

Ans $\boxed{(x-2)^2 + (y+1)^2 = 16}$