Finding the Equation of Circles - Step-by-Step Lesson

Find the equation of a circle whose center is at (3, - 5) and radius 6.

Explanation:

Step 1) The standard equation of a circle with center C (h, k) and radius r is:

$(x - h)^2 + (y - k)^2 = r^2$

Step 2) Given (h, k) = (3, -5) and r= 6

Step 3) Substitute h, k and r in the standard equation to solve.

$$(x - 3)^2 + (y - (-5))^2 = 6^2$$
$$(x - 3)^2 + (y + 5)^2 = 36$$