

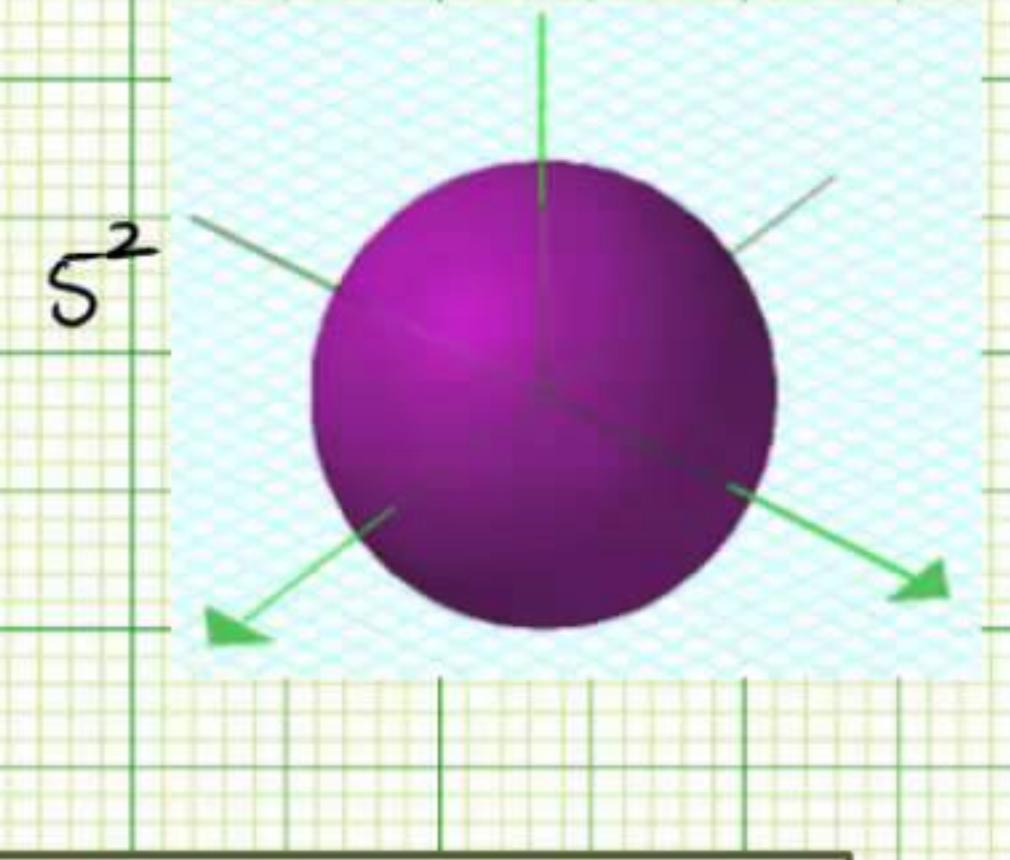
Equation of a Sphere

Write an equation for a sphere centered at the point $(4, -3, -1)$ with radius 5.

(a, b, c)

$r = 5$

$$(x - 4)^2 + (y - (-3))^2 + (z - (-1))^2 = 5^2$$



The Equation of a Sphere

The set of points (x, y, z) at a fixed distance r from a point (a, b, c) is a sphere with center (a, b, c) and radius r . The sphere is given by the equation

$$(x - a)^2 + (y - b)^2 + (z - c)^2 = r^2$$

