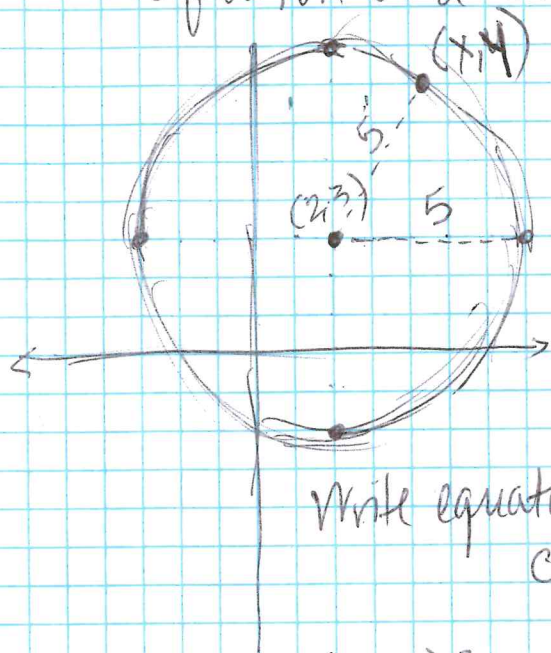


Equation of a Circle



Let radius = distance

$$5 = \sqrt{(x-2)^2 + (y-3)^2}$$

$$25 = (x-2)^2 + (y-3)^2$$

like $y = \frac{2}{3}x + 5$

$r = 5$ (h, k) = (2, 3)
radius center

$$r^2 = (x-h)^2 + (y-k)^2 \quad \text{like } y = mx + b$$

(h, k) = center $r = \text{radius}$

Write equation of a circle with radius of 7 and center (4, 0).

(h, k)

$$7^2 = (x-4)^2 + (y-0)^2$$

OR $49 = (x-4)^2 + y^2$

$$(x+3)^2 + (y-1)^2 = 36 \quad \text{B}$$

~~HW~~ #10 - p 520: 1-7

on #6 $r = 2\sqrt{2}$

on #7, use distance formula from center to pt