

25. $6x^2 - 12x + 6y^2 + 36y = 36$

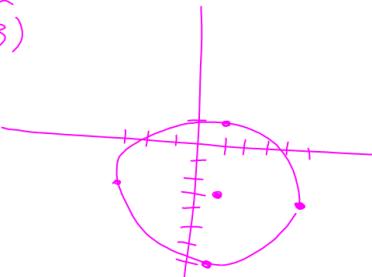
$$x^2 - 2x + \underline{1} + y^2 + 6y + \underline{9} = 6 + \underline{1} + \underline{9}$$

$$(x-1)^2 + (y+3)^2 = 16$$

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

center
(1, -3)

$r=4$

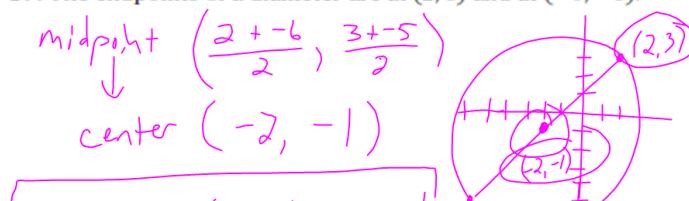


37. The endpoints of a diameter are at (2, 3) and at (-6, -5).

midpoint $\left(\frac{2+(-6)}{2}, \frac{3+(-5)}{2} \right)$

center (-2, -1)

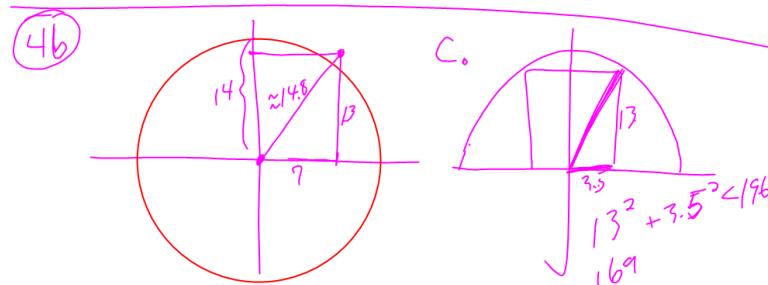
$$(x+2)^2 + (y+1)^2 = 32$$

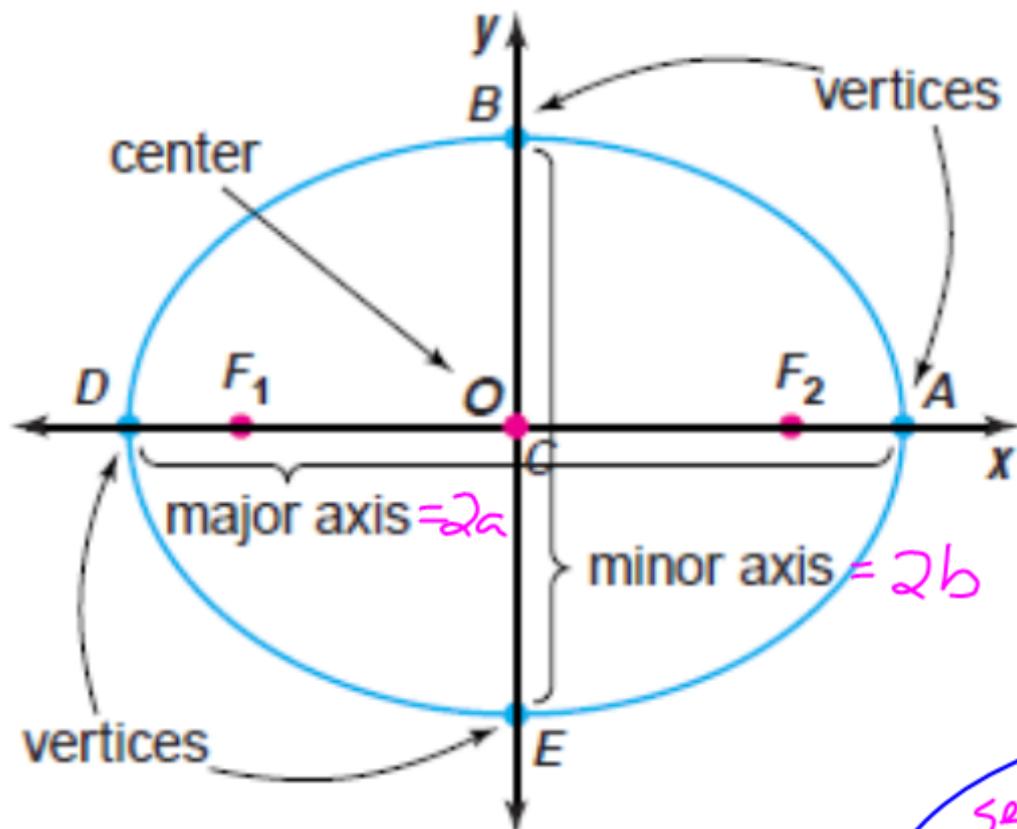


$$r = \text{dist} = \sqrt{(2+2)^2 + (3+1)^2}$$

$$r = \sqrt{32}$$

c.





$$b^2 + c^2 = a^2$$

