Name ~ Mosab Mohamed   Group: B20-04   Variant: 1

P2.

major axis is horizontal $e = 0.5$ $a - c = 2$ $c = 2$ $a = 4$

$\dfrac{(x-h)^2}{a^2} + \dfrac{(y-k)^2}{b^2} = 1$ $e = \dfrac{c}{a}$ $c^2 = a^2 - b^2$

$e = \dfrac{2}{4}$ $2^2 = 4^2 - b^2$

$b^2 = 4^2 - 2^2$ $b = \sqrt{12} = 2\sqrt{3}$

equation of the ellipse $= \dfrac{x^2}{16} + \dfrac{y^2}{12} = 1$