Class Discussion

Unit 9 Topic 2 Part 1 Ellipses

Objective: understand the standard forms

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

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Ex1: Describe the orientation (vertical or horizontal) of the major axis of the ellipses

(a) $\frac{y^2}{63}+\frac{(x-4)^2}{36}=1$

(b) $2(x-2)^2+4\left(y+\frac{1}{2}\right)^2=1$

Ex2: graph the ellipse and identify its characteristic

$$\frac{x^2}{36}+\frac{(y-2)^2}{16}=1$$

Ex3: Find the standard form of an ellipse with foci $(\pm\sqrt{7},0)$ and passes $\left(2,\frac{-3\sqrt{3}}{2}\right)$