

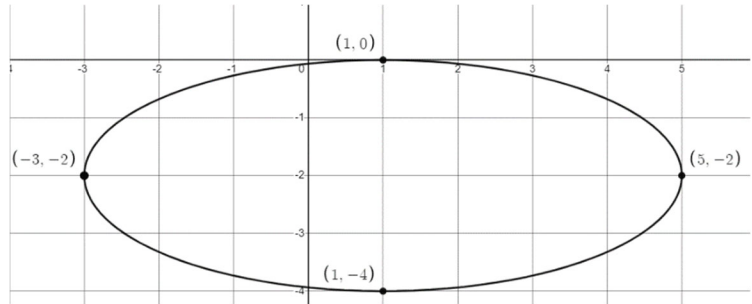
4.6B Conic Sections: Ellipses

AP Precalculus

Name: _____

1. Which equation matches the graph shown?

- (A) $\frac{(x+1)^2}{4} + \frac{(y-2)^2}{16} = 1$
- (B) $\frac{(x+1)^2}{16} + \frac{(y-2)^2}{4} = 1$
- (C) $\frac{(x-1)^2}{16} + \frac{(y+2)^2}{4} = 1$
- (D) $\frac{(x-1)^2}{4} + \frac{(y+2)^2}{16} = 1$



2. Identify the coordinates of the center; orientation and vertices of the ellipse given by the equation:

$$\frac{(x+3)^2}{4} + \frac{(y-3)^2}{9} = 1$$

3. Find the equation of the ellipse with a center at the origin and a major axis length of 12 and minor axis coordinates of (0, 5) and (0, -5).

4. Find the equation of the ellipse with foci (-6,1), (2,1) and a major axis length of 14.

5. Put the given equation of an ellipse into standard form. Identify the center, foci, and orientation.
 $3x^2 + y^2 - 12x + 6y + 6 = 0$

1. C Center: (-3, 3) Vertical	Vertices: (-3, 6), (-3, 0)
3. C $\frac{x^2}{36} + \frac{y^2}{25} = 1$	Vertices: (-3, 6), (-3, 0)
5. C $\frac{(x-2)^2}{5} + \frac{(y+3)^2}{15} = 1$	Center: (2, -3) Foci: (2, -3 + $\sqrt{10}$), (2, -3 - $\sqrt{10}$) Vertical
4. C $\frac{(x+2)^2}{49} + \frac{(y-1)^2}{33} = 1$	Center: (2, -3) Foci: (2, -3 + $\sqrt{10}$), (2, -3 - $\sqrt{10}$) Vertical

Answers to 4.6B CA #2