

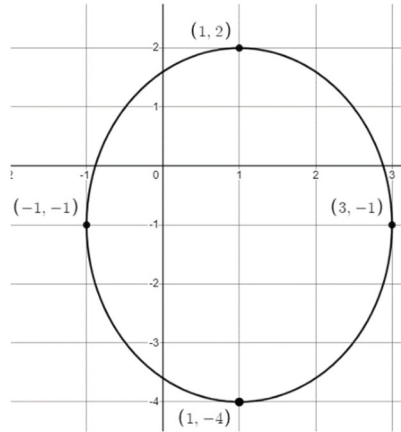
4.6B Conic Sections: Ellipses

AP Precalculus

Name: _____

1. Which equation matches the graph shown?

- (A) $\frac{(x+1)^2}{9} + \frac{(y-1)^2}{4} = 1$
- (B) $\frac{(x+1)^2}{4} + \frac{(y-1)^2}{9} = 1$
- (C) $\frac{(x-1)^2}{4} + \frac{(y+1)^2}{9} = 1$
- (D) $\frac{(x-1)^2}{9} + \frac{(y+1)^2}{4} = 1$



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

$$\frac{(x-5)^2}{4} + \frac{(y-1)^2}{9} = 1$$

3. Find the equation of the ellipse with a center at the origin and a major axis length of 18 and minor axis coordinates of (7,0) and (-7,0).

4. Find the equation of the ellipse with foci (-6,1), (2,1) and a major axis length of 10.

5. Put the given equation of an ellipse into standard form. Identify the center, foci, and orientation.
 $x^2 + 3y^2 - 8x + 18y + 10 = 0$

<p>2. Center: (5,1) Vertical Vertices: (5,4), (5,-2)</p>	<p>1. C</p>
<p>3. $\frac{x^2}{49} + \frac{y^2}{81} = 1$</p>	<p>4. $\frac{(x+2)^2}{25} + \frac{(y-1)^2}{9} = 1$</p>
<p>5. $\frac{(x-4)^2}{11} + \frac{(y+3)^2}{33} = 1$ Vertices: (5,4), (5,-2)</p>	<p>Horizontal Foci: (4 + $\sqrt{22}$, -3), (4 - $\sqrt{22}$, -3), Center: (4, -3)</p>

Answers to 4.6B CA #1