

AA2

Name:

Ellipses WS A

Hour:

For each ellipse, tell whether the major axis is horizontal or vertical. List the center, the vertices, the co-vertices and the foci. Make a rough sketch of the ellipse.

1.  $\frac{x^2}{25} + \frac{(y+3)^2}{16} = 1$

2.  $\frac{(x-4)^2}{30} + \frac{(y-9)^2}{5} = 1$

3.  $\frac{x^2}{21} + \frac{y^2}{36} = 1$

4.  $\frac{(x+5)^2}{18} + \frac{(y-2)^2}{9} = 1$

5.  $\frac{(x-10)^2}{1} + \frac{(y+4)^2}{3} = 1$

For each ellipse below, write the equation.

6. Center (0,0), vertices (4, 0) & (-4, 0), co-vertices (0,2) & (0, -2)

7. Vertices (14,0) & (-14, 0), Foci ( $3\sqrt{19}$ , 0) &  $-3\sqrt{19}$ , 0)

8. Foci (7,9) & (-1, 9), Co-vertices (3, 12) & (3, 6)

9. Foci ( $\sqrt{115}$ , 0) &  $-\sqrt{115}$ , 0), Endpoints of the major axis ( $\sqrt{195}$ , 0) &  $-\sqrt{195}$ , 0)

10. Major Axis is vertical, Center (8, -2), Major Axis is 18 units long, Minor Axis is 8 units long