

Conic Section Practice - Homework

Date_____ Period_____

Use the information provided to write the standard form equation of each ellipse.

1) $x^2 + 4y^2 + 10x + 8y - 35 = 0$

Identify the center, vertices, and co-vertices of each ellipse.

2) $\frac{(x-8)^2}{100} + \frac{(y+3)^2}{36} = 1$

Use the information provided to write the standard form equation of each hyperbola.

3) $-x^2 + 4y^2 - 2x - 145 = 0$

4) $-x^2 + y^2 - 12x + 2y - 51 = 0$

Identify the vertices and direction of opening of each hyperbola.

5) $\frac{(x-3)^2}{144} - \frac{(y-3)^2}{16} = 1$

6) $\frac{(x+9)^2}{36} - \frac{(y-6)^2}{196} = 1$

Identify the asymptotes of each hyperbola.

7) $\frac{(y-9)^2}{144} - \frac{(x+5)^2}{81} = 1$

8) $\frac{\left(x - \frac{13}{2}\right)^2}{121} - \frac{(y+8)^2}{81} = 1$