

Conic Section Practice - In Class

Date_____ Period_____

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

1) $49x^2 + 16y^2 + 98x - 256y + 289 = 0$

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

2) $\frac{\left(x - \frac{15}{2}\right)^2}{144} + \frac{\left(y - \frac{1}{2}\right)^2}{169} = 1$

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

3) $-9x^2 + 16y^2 - 36x + 128y - 356 = 0$

4) $-25x^2 + 4y^2 + 150x + 64y - 69 = 0$

Identify the vertices and direction of opening of each hyperbola.

5) $\frac{(x+7)^2}{25} - \frac{(y-4)^2}{100} = 1$

6) $\frac{(x+7)^2}{100} - \frac{(y-6)^2}{16} = 1$

Identify the asymptotes of each hyperbola.

7) $\frac{(y-7)^2}{81} - (x+3)^2 = 1$

8) $\frac{(y-10)^2}{64} - \frac{(x-5)^2}{144} = 1$