Name _____ Date _____

Conics

(Answer ID # 0553871)

Write the standard equation for the hyperbola with the given characteristics.

1. vertices: (-5,0) and (5,0) co-vertices: (0,-5) and (0,5)
2. vertices: (-8,0) and (8,0) co-vertices: (0,-3) and (0,3)
3. Foci: ($-3\sqrt{13}$, 0) and ($3\sqrt{13}$, 0) co-vertices: (0,-6) and (0,6)
4. Foci: ($-\sqrt{53}$, 0) and ($\sqrt{53}$, 0) co-vertices: (0,-2) and (0,2)
5. Foci: ($-\sqrt{97}$, 0) and ($\sqrt{97}$, 0) vertices: (-4,0) and (4,0)
6. Foci: ($-2\sqrt{13}$, 0) and ($2\sqrt{13}$, 0) vertices: (-6,0) and (6,0)
7. Foci: ($-\sqrt{145}$, 0) and ($\sqrt{145}$, 0) co-vertices: (0,-9) and (0,9)
8. Foci: ($-4\sqrt{5}$, 0) and ($4\sqrt{5}$, 0) co-vertices: (0,-8) and (0,8)
9. vertices: (-9,0) and (9,0) co-vertices: (0,-5) and (0,5)
10. Foci: ($-2\sqrt{2}$, 0) and ($2\sqrt{2}$, 0) vertices: (-2,0) and (2,0)

Name _____ Date _____

Conics

(Answer ID # 1026443)

Write the standard equation for the hyperbola with the given characteristics.

1. vertices: (-5,0) and (5,0)
co-vertices: (0,-5) and (0,5)

$$\frac{x^2}{25} - \frac{y^2}{25} = 1$$

2. vertices: (-8,0) and (8,0)
co-vertices: (0,-3) and (0,3)

$$\frac{x^2}{64} - \frac{y^2}{9} = 1$$

3. Foci: $(-3\sqrt{13}, 0)$ and $(3\sqrt{13}, 0)$
co-vertices: (0,-6) and (0,6)

$$\frac{x^2}{81} - \frac{y^2}{36} = 1$$

4. Foci: $(-\sqrt{53}, 0)$ and $(\sqrt{53}, 0)$
co-vertices: (0,-2) and (0,2)

$$\frac{y^2}{49} - \frac{x^2}{4} = 1$$

5. Foci: $(-\sqrt{97}, 0)$ and $(\sqrt{97}, 0)$
vertices: (-4,0) and (4,0)

$$\frac{y^2}{16} - \frac{x^2}{81} = 1$$

6. Foci: $(-2\sqrt{13}, 0)$ and $(2\sqrt{13}, 0)$
vertices: (-6,0) and (6,0)

$$\frac{x^2}{36} - \frac{y^2}{16} = 1$$

7. Foci: $(-\sqrt{145}, 0)$ and $(\sqrt{145}, 0)$
co-vertices: (0,-9) and (0,9)

$$\frac{x^2}{64} - \frac{y^2}{81} = 1$$

8. Foci: $(-4\sqrt{5}, 0)$ and $(4\sqrt{5}, 0)$
co-vertices: (0,-8) and (0,8)

$$\frac{y^2}{16} - \frac{x^2}{64} = 1$$

9. vertices: (-9,0) and (9,0)
co-vertices: (0,-5) and (0,5)

$$\frac{y^2}{81} - \frac{x^2}{25} = 1$$

10. Foci: $(-2\sqrt{2}, 0)$ and $(2\sqrt{2}, 0)$
vertices: (-2,0) and (2,0)

$$\frac{y^2}{4} - \frac{x^2}{4} = 1$$