Precalculus/Trig 3 Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Hyperbolas Notes

Hyperbola

Branches:

Vertices:

Transverse Axis:

Conjugate Axis:

Center:

Foci:

Standard Equation of a Hyperbola:

Asymptotes of a Hyperbola:

Examples:

1. Given the hyperbola , find the vertices, foci, and state the asymptotes.

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3. Sketch the hyperbola whose equation is 

4. Sketch the hyperbola whose equation is 

5. Find the standard form of an equation of the hyperbola with foci at (6,0) and (-6, 0) and vertices at (4, 0) and (-4,0).

6. Write the standard form of an equation of the hyperbolas with foci (0, 7) and (0,-7) whose length of the transverse axis if 12.

7. Write the standard form of an equation of the hyperbolas with vertices (1, 2) and (3,2) whose asymptotes are y = x and y = 4 – x.