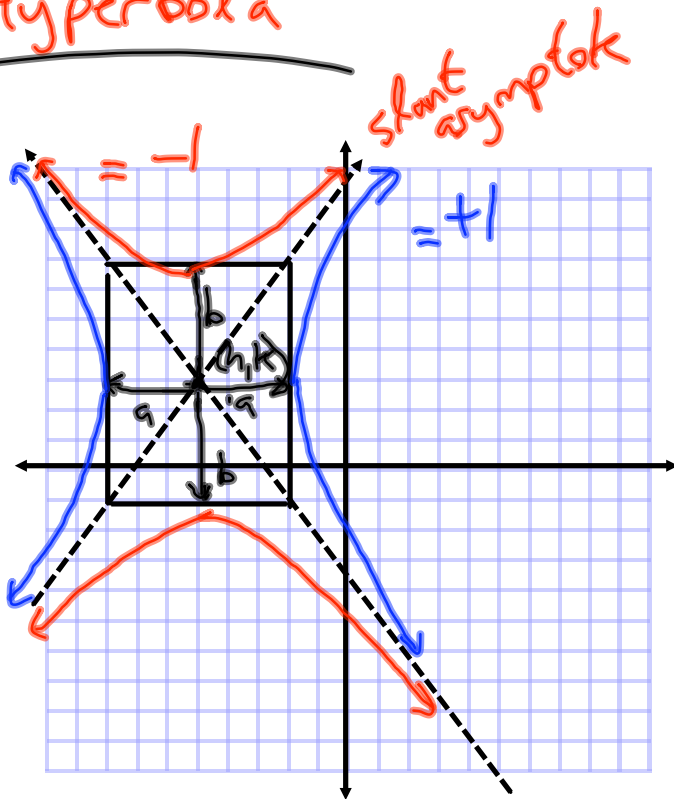


Hyperbola



CONICS
Quiz

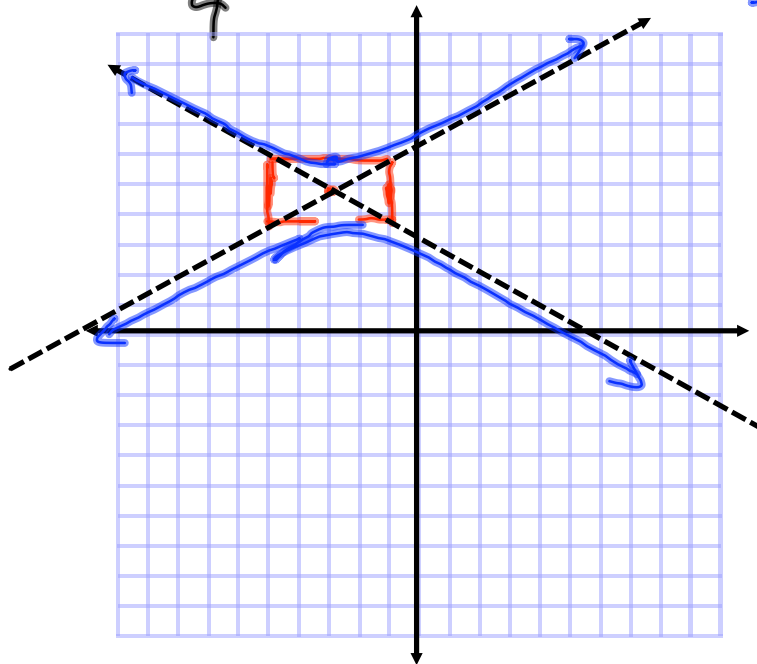
tomorrow

Standard Equation

$$\frac{(x-h)^2}{a^2} - \frac{(y-k)^2}{b^2} = \pm 1$$

Sketch the graph of

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



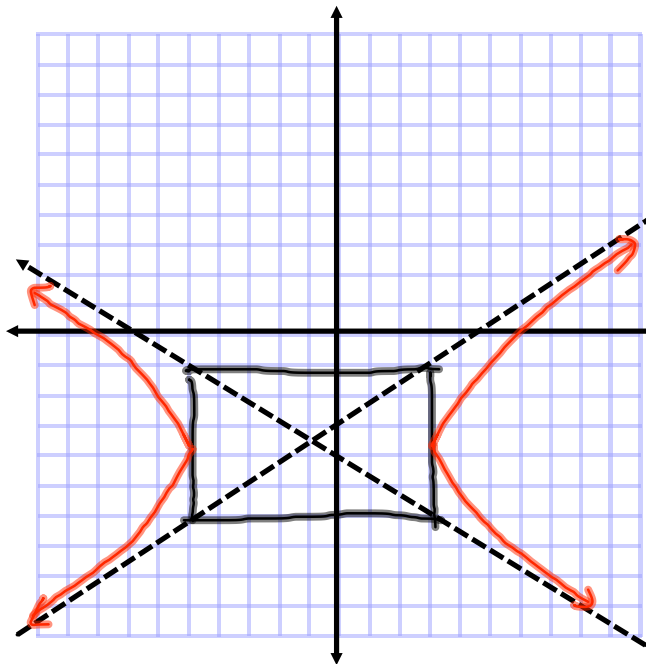
Determine
the domain
+ range.

$$x \in \mathbb{R}$$

$$y \leq 4$$

$$y \geq 6$$

~~$$6 \leq y \leq 4$$~~



Determine
the equation
of the hyperbola
in standard
+ general
form.

$$\frac{(x+1)^2}{16} - \frac{(y+3.5)^2}{6.25} = 1$$

$\times 6.25$
 $\times 16$

$$6.25(x+1)^2 - 16(y+3.5)^2 = 16 \times 6.25$$

$$6.25(x^2 + 2x + 1) - 16(y^2 + 7y + 12.25) = 100$$

$$6.25x^2 + 12.5x + 6.25 - 16y^2 + 112y + 196 = 100$$

$$6.25x^2 - 16y^2 + 12.5x - 112y - 289.75 = 0$$

$$25x^2 - 64y^2 + 50x - 448y - 1159 = 0$$