

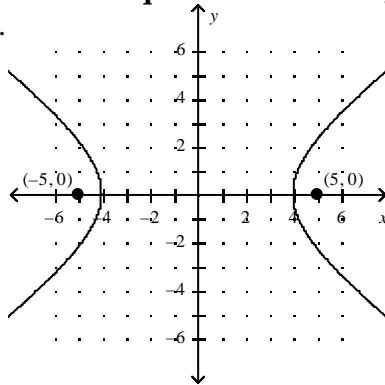
Topic 7.5  
Hyperbolas  
Homework

Name: \_\_\_\_\_

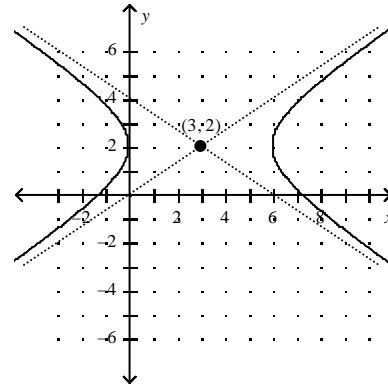
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Write the equation for each hyperbola.

1.



2.



Find the following:

- a) Coordinates of the vertices
- b) Coordinates of the foci
- c) Slopes of the asymptotes

3)  $\frac{x^2}{144} - \frac{y^2}{25} = 1$

4)  $\frac{(y+1)^2}{36} - \frac{(x-4)^2}{16} = 1$

5)  $y^2 = 49 + 7x^2$

6)  $x^2 - 2y^2 + 14x + 28y = -83$

7)  $-3x^2 + y^2 - 24x - 20y = -4$