College Algebra	**Name:** _____
Study Guide 18	**Class:** _____
Due Date: _____	**Score:** _____

No Work $\Leftrightarrow$ No Points

Use Pencil Only $\Leftrightarrow$ Be Neat & Organized

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1. Consider $f(x) = \dfrac{x}{x^2+4}$ **,**

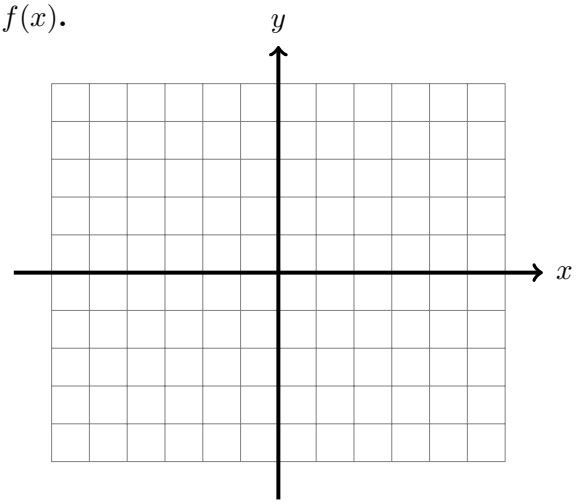
(a) (2 points) Find all its intercepts.

(a) _____

(b) (2 points) Find all its asymptotes .

(b) _____

(c) (3 points) Graph $f(x)$**.**



(d) (2 points) Find intervals where $f(x) \geq 0$**.**

(d) _____

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2. Consider $x^2 = 12y$,

(a) (2 points) Find its focus.

(a) _____

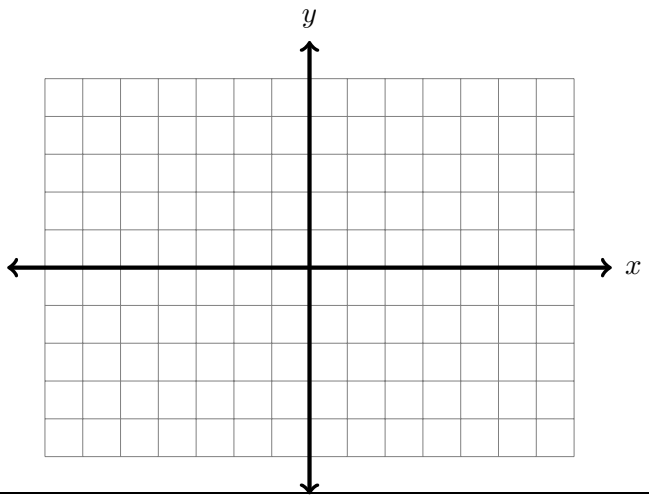
(b) (2 points) Find its directrix.

(b) _____

(c) (2 points) Find x for $y = 3$.

(c) _____

(d) (3 points) Graph. Draw its axis of symmetry and the directrix.



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3. Consider $x^2 = -8y$,

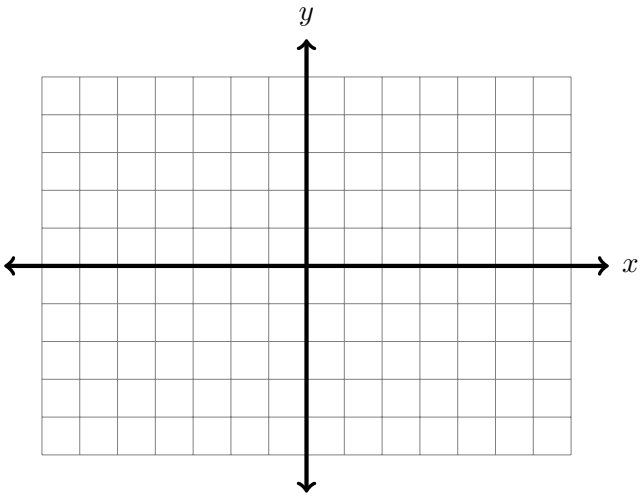
(a) (3 points) Find its focus and directrix.

(a) _____

(b) (2 points) Find x for $y = -2$.

(b) _____

(c) (3 points) Graph. Draw its axis of symmetry and the directrix.



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4. Consider $y^2 = 16x$,

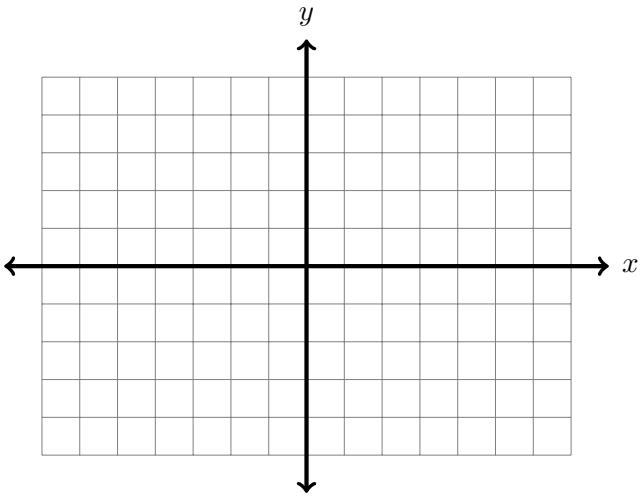
(a) (3 points) Find its focus and directrix.

(a) _____

(b) (2 points) Find y for $x = 1$.

(b) _____

(c) (3 points) Graph. Draw its axis of symmetry and the directrix.



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5. Consider $y^2 = -8\sqrt{2}x$,

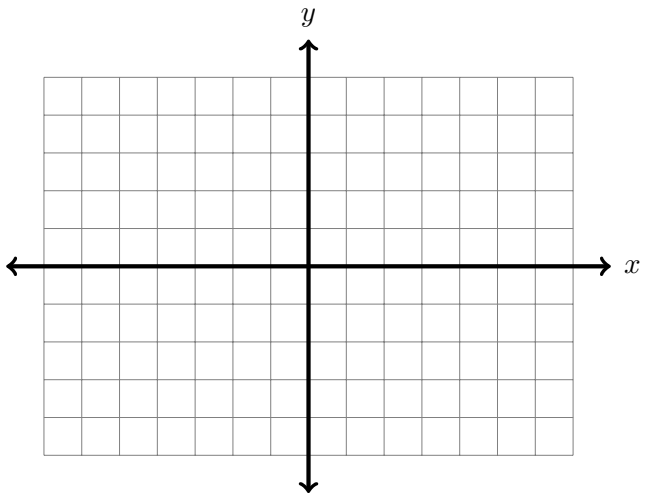
(a) (3 points) Find its focus and directrix.

(a) _____

(b) (3 points) Find y for $x = -\sqrt{2}$.

(b) _____

(c) (3 points) Graph. Draw its axis of symmetry and the directrix.



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6. Consider $\frac{x^2}{25} + \frac{y^2}{9} = 1$,

(a) (4 points) Find all its intercepts.

(a) _____

(b) (3 points) Find its foci.

(b) _____
