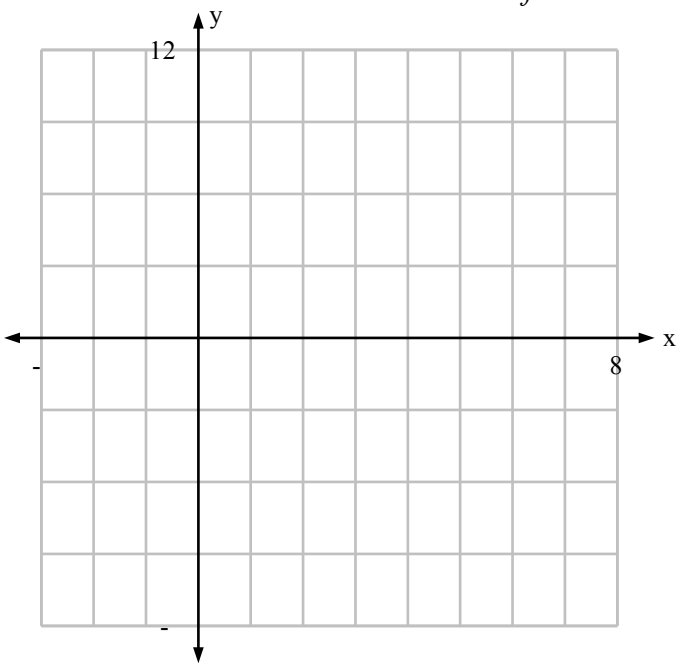
More Practice

1. Let $f(x)=\dfrac{2x-3}{x-4}$.

   a. Sketch the graphs of f and $\dfrac{1}{f}$. (Scale!)



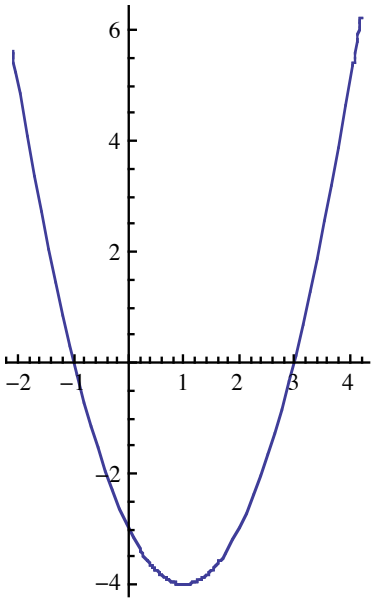
   b. Give the equations of all of the asymptotes of both f and $\dfrac{1}{f}$.

   asymptotes of f:

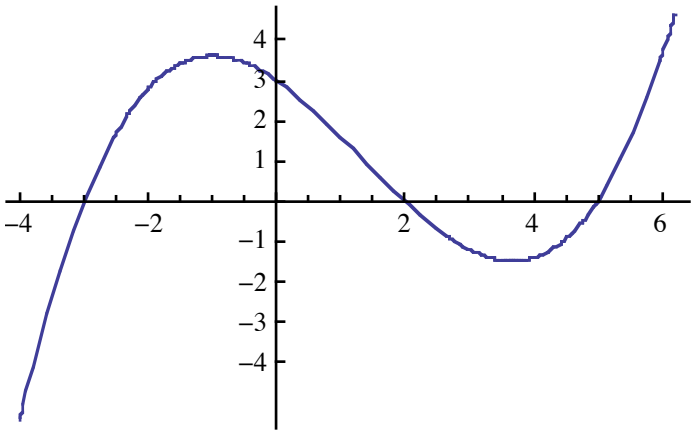
   asymptotes of $\dfrac{1}{f}$:

2. Given the graph of f, sketch the graph of its reciprocal on the same axes.

a.



b.

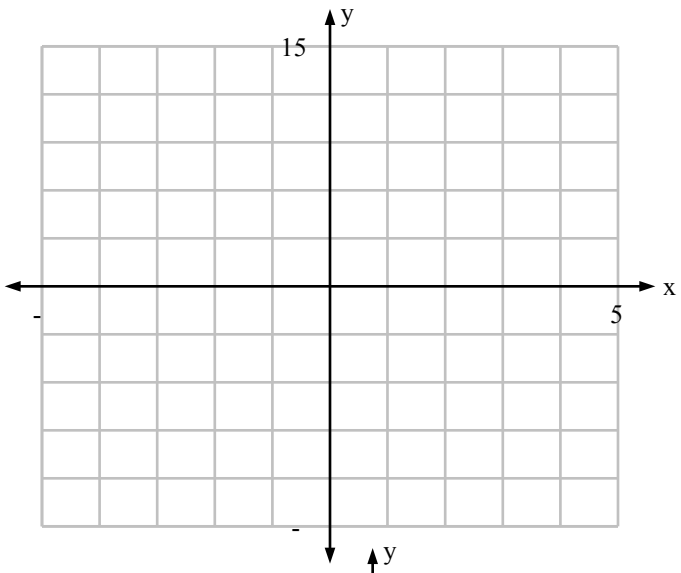


3. Write the equations of all of the asymptotes of each function.

$$f(x)=\frac{4x^3}{(x-2)^2(x+1)} \qquad g(x)=\frac{(x+3)(x-2)}{x^2} \qquad h(x)=1+\frac{x-2}{x+4}$$

4. Sketch the graph of f and the graph of its reciprocal. (Scale!)

$$f(x)=\frac{12x}{x^2-1}$$



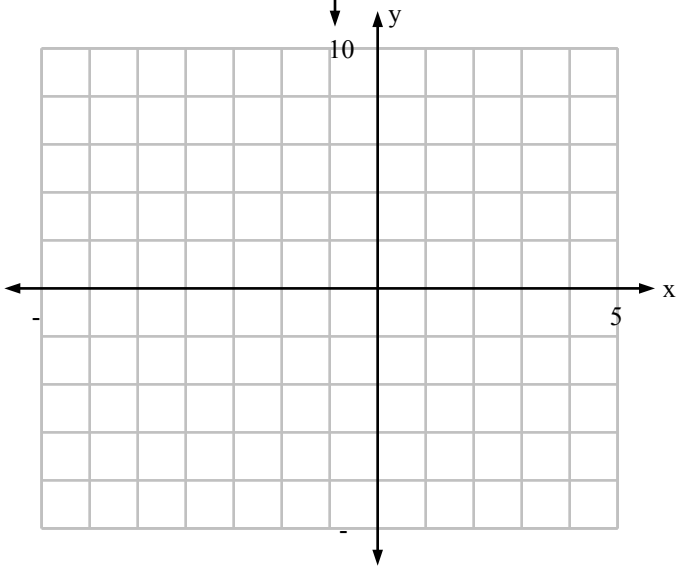
5. Let $f(x)=\frac{(x-3)(x+2)^2}{(x-3)(x+1)(x+4)}$

State the domain.

Find the zeroes.

Find the equations of all asymptotes.

Where does the graph cross the horizontal asymptote?



Sketch the graph. (Scale!)

What happens to the graph when $x = 3$?

What happens to the graph for values of x "close" to 3?