

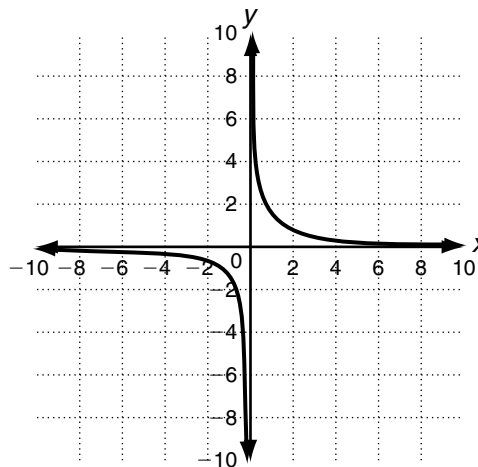
LESSON

Practice B

8-4 Rational Functions

Using the graph of $f(x) = \frac{1}{x}$ as a guide, describe the transformation and graph the function.

1. $g(x) = \frac{2}{x + 4}$



Identify the asymptotes, domain, and range of each function.

2. $g(x) = \frac{1}{x - 3} + 5$

3. $g(x) = \frac{1}{x + 8} - 1$

Identify the zeros and asymptotes of the function. Then graph.

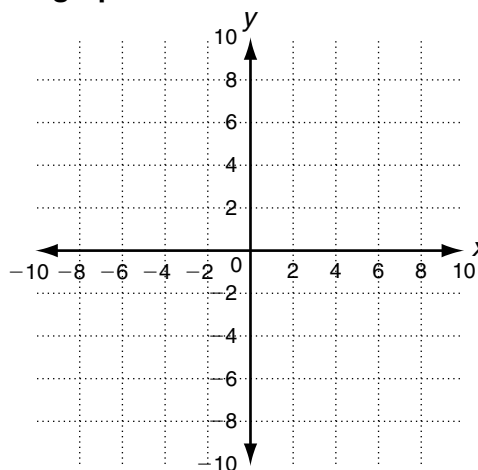
4. $f(x) = \frac{x^2 + 4x - 5}{x + 1}$

a. Zeros:

b. Vertical asymptote:

c. Horizontal asymptote:

d. Graph.



Solve.

5. The number, n , of daily visitors to a new store can be modeled by the function $n = \frac{(250x + 1000)}{x}$, where x is the number of days the store has been open.

a. What is the asymptote of this function and what does it represent?

b. To the nearest integer, how many visitors can be expected on day 30?
