

Precal chapter 5 Rational Functions Reviews

1. $R(x) = \frac{x^3 - 1}{x^2 - 9}$

a) Domain:

b) Vertical Asymptote(s):

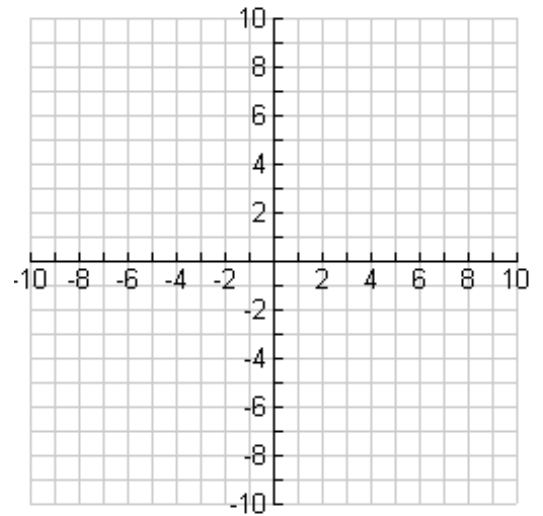
c) x-intercept(s):

d) y-intercept(s):

e) End Behavior Asymptote:

f) Graph the function.

g) Limits of the ends and near each vertical asymptote:



2. $g(x) = \frac{3x + 6}{x - 5}$

a) Domain:

b) Vertical Asymptote(s):

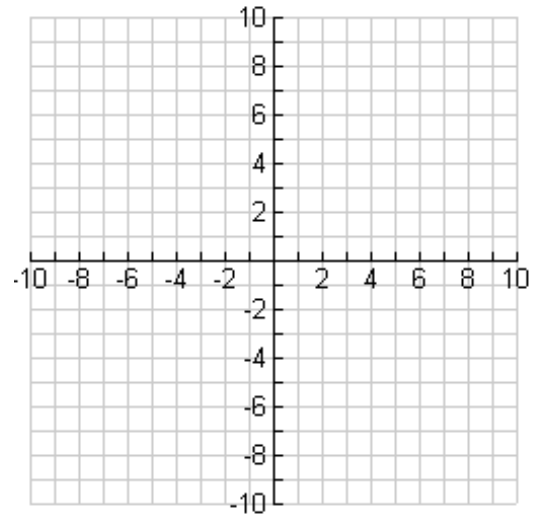
c) x-intercept(s):

d) y-intercept(s):

e) End Behavior Asymptote:

f) Graph the function.

g) Limits of the ends and near each vertical asymptote:



3. $h(x) = \frac{x-2}{2x^2-8}$

a) Domain:

b) Vertical Asymptote(s):

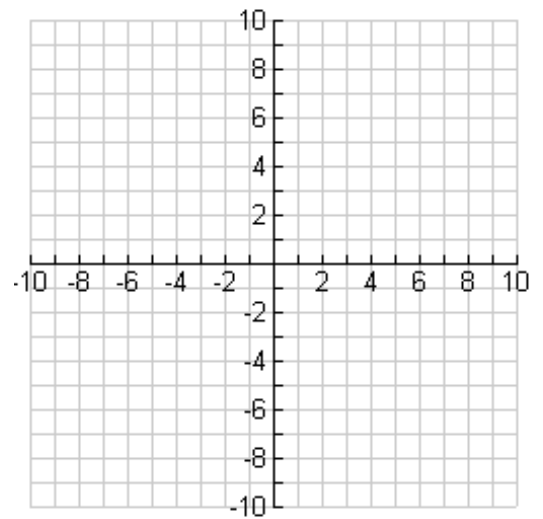
c) x-intercept(s):

d) y-intercept(s):

e) End Behavior Asymptote:

f) Graph the function.

g) Limits of the ends and near each vertical asymptote:



4.
$$p(x) = \frac{x^2 + x - 12}{x - 4}$$

a) Domain:

b) Vertical Asymptote(s):

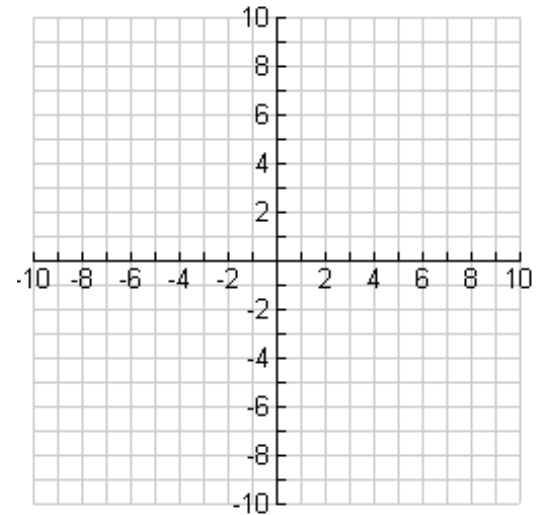
c) x-intercept(s):

d) y-intercept(s):

e) End Behavior Asymptote:

f) Graph the function.

g) Limits of the ends and near each vertical asymptote:



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

a) Domain:

b) Vertical Asymptote(s):

c) x-intercept(s):

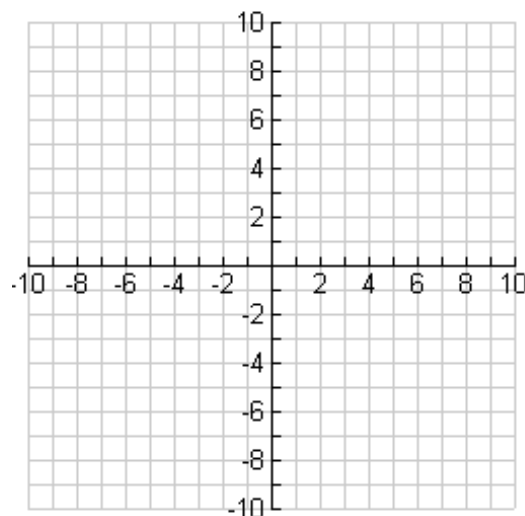
d) y-intercept(s):

e) End Behavior Asymptote:

f) Graph the function.

g) Limits of the ends and near each vertical asymptote:

h) Looking only at $\frac{x+1}{x-1} > 0$, find the solutions for x.



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

- a) Domain:
- b) Vertical Asymptote(s):
- c) x-intercept(s):
- d) y-intercept(s):
- e) End Behavior Asymptote:
- f) Graph the function.
- g) Limits of the ends and near each vertical asymptote:
- h) Looking only at $\frac{(x+5)^2}{x^2-4} \geq 0$, find the solutions for x.

