

Name _____

Date _____

Graph the rational and find all the characteristics.

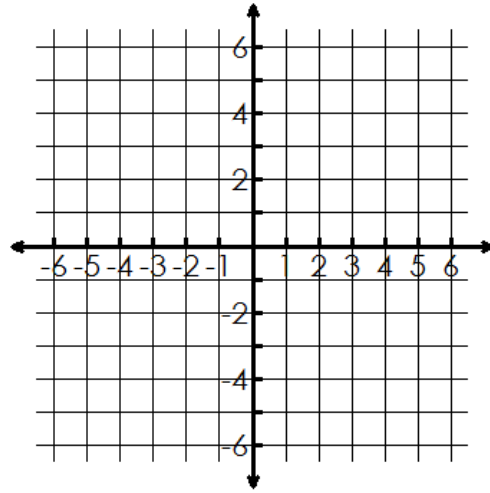
1. $f(x) = \frac{x^2 - x - 2}{x - 1}$

VA: _____ HA: _____ slant : _____

x-int: _____ y-int: _____ holes: _____

Domain: _____ Range: _____

inc: _____ dec: _____



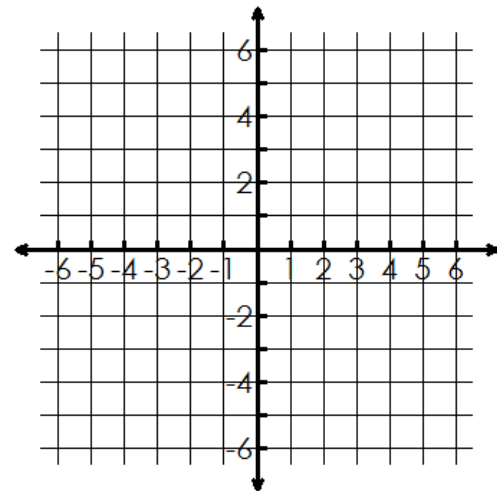
2. $f(x) = \frac{x^2 + 4x - 5}{x + 2}$

VA: _____ HA: _____ slant : _____

x-int: _____ y-int: _____ holes: _____

Domain: _____ Range: _____

inc: _____ dec: _____



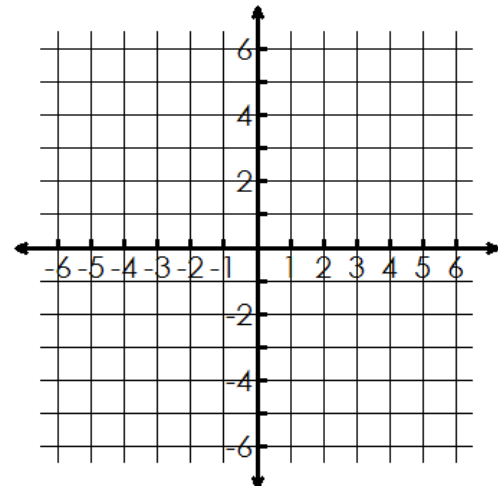
3. $f(x) = \frac{x - 1}{x^2 + 3x - 4}$

VA: _____ HA: _____ slant : _____

x-int: _____ y-int: _____ holes: _____

Domain: _____ Range: _____

inc: _____ dec: _____



4. Determine all asymptotes & holes for

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

5. Determine all asymptotes & holes for

$$f(x) = \frac{6 - 2x}{3 - x}$$

6. Write a rational equation with vertical asymptotes of
- $x = 1$
- ,
- $x = \frac{-1}{3}$
- and horizontal asymptote of
- $y = 5$
- .

7. Write a rational equation with vertical asymptote of
- $x = 4$
- , a horizontal asymptote of
- $y = 3$
- and a zero at
- $x = -2$
- .

8. Find all information for the graph.

VA: _____ HA: _____ slant : _____

x-int: _____ y-int: _____ holes: _____

Domain: _____ Range: _____

inc: _____ dec: _____

