

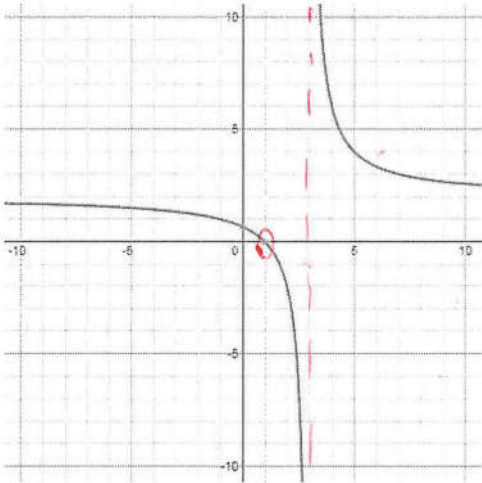
Algebra 1B—Chapter 11 Test REVIEW: Rational Functions

14. $h(x)$ so that the function...

- a. has a root at $x = 4$
- b. has a vertical asymptote at $x = 1$
- c. has a horizontal asymptote at $y = -2$

$$h(x) = \frac{-2(x-4)}{x-1} \text{ or } \frac{-2x+8}{x-1}$$

15.

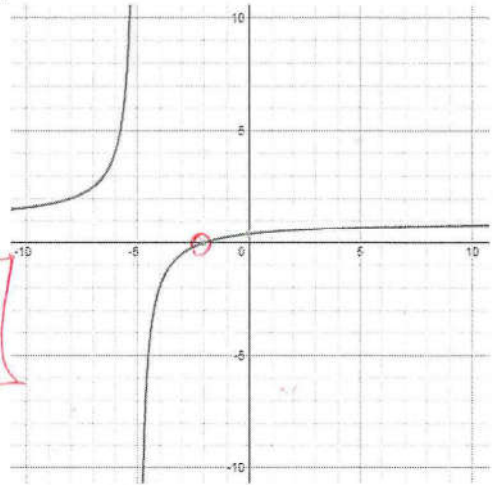


Roots: $x = 1$
 Vertical Asymptote: $x = 3$
 Horizontal Asymptote: $y = 2$

Equation:

$$f(x) = \frac{2(x-1)}{x-3} \text{ or } \frac{2x-2}{x-3}$$

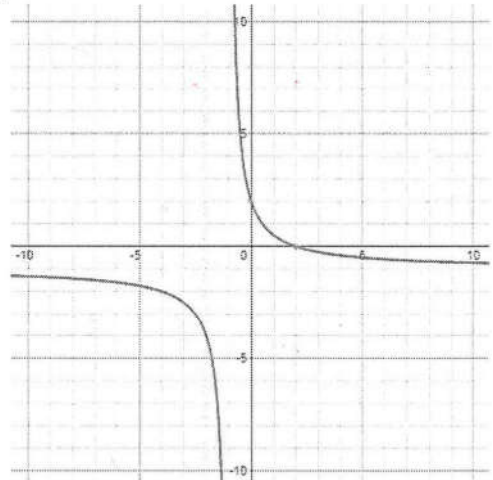
16.



Roots: $-2 = x$
 Vertical Asymptote: $x = -5$
 Horizontal Asymptote: $y = 1$

Equation: $f(x) = \frac{x+2}{x+5}$

17.



Roots: $x = 2$
 Vertical Asymptote: $x = -1$
 Horizontal Asymptote: $y = -1$

Equation:

$$f(x) = \frac{-1(x-2)}{x+1} \text{ or } \frac{-x+2}{x+1}$$