Review 2.6-2.8

Solve the equation algebraically. Identify any extraneous solutions.

$$x+2=\frac{15}{x}$$

Solve the equation algebraically. Identify any extraneous solutions.

$$\frac{3x}{x+5}+\frac{1}{x-2}=\frac{7}{x^2+3x-10}$$

Solve the equation algebraically. Identify any extraneous solutions.

$$\frac{x-3}{x}-\frac{3}{x+1}+\frac{3}{x^{2}+x}=0$$

Solve the polynomial using factoring and a sign chart

$$(x+1)(x^2-3x+2)<0$$

Determine the real values of x that cause the function to be zero, undefined, positive and negative

$$f(x)=\frac{\sqrt{x+5}}{(2x+1)(x-1)}$$

Solve the polynomial using a sign chart

$$\frac{x^2-4}{x^2+4}>0$$

Solve the polynomial using a sign chart

$$\frac{x^2+3x-10}{x^2-6x+9}>0$$

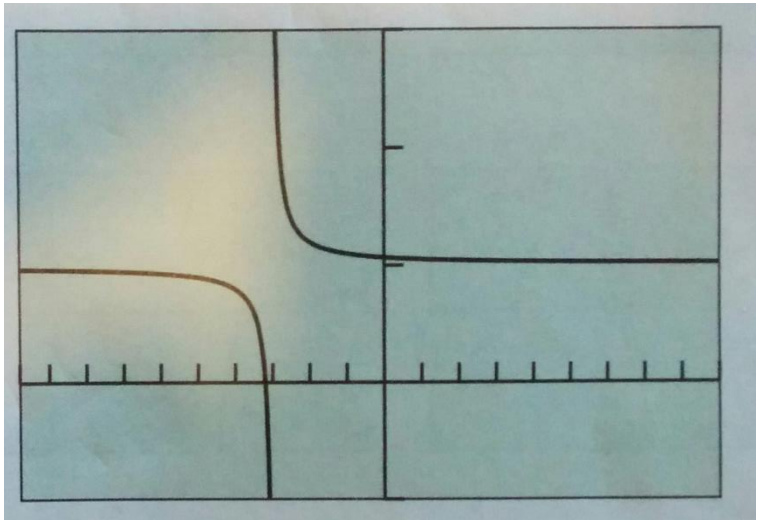
Find the domain of the function f. Use limits to describe the behavior of f(x) at value(s) of x not in its domain.

$$f(x) = \frac{1}{x+3}$$

Describe how the graph of the given function can be obtained by transforming the graph of the reciprocal function g(x) = 1/x. Identify the horizontal and vertical asymptotes and use limits to describe the corresponding behavior. Sketch the graph.

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

Evaluate the limit based on the graph shown



[–9.8, 9] by [–5, 15]

15. $\lim_{x \to -3^+} f(x)$

16. $\lim_{x \to -3^-} f(x)$

17. $\lim_{x \to -\infty} f(x)$

18. $\lim_{x \to \infty} f(x)$

A) Find the intercepts
B) Find the asymptotes(HA or slant/Vertical)
C) Find the domain
D) Use limits to describe the end behavior.
E) Determine where the function is continuous

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

F) Use limits to describe the behavior at the vertical asymptote(s)

G) Sketch a graph