

Name: _____

Date: _____

Learning Goal 2.1

Finite limits and continuity.

More Questions

1. Determine each limit numerically.

a. $\lim_{x \rightarrow 3} 3x - 2$

b. $\lim_{x \rightarrow 0} \frac{x}{x - 2}$

c. $\lim_{x \rightarrow 0} \frac{x}{x^2 - 2x}$

2. Determine each limit graphically by hand.

a. $\lim_{x \rightarrow 2} \begin{cases} \frac{x^2 + 4x - 12}{x^2 - 2x}, & x \neq 2 \\ 6, & x = 2 \end{cases}$

b. $\lim_{x \rightarrow 2} \begin{cases} x^2, & x \geq -1 \\ x + 2, & x < -1 \end{cases}$

c. $\lim_{x \rightarrow 0} \begin{cases} 1, & x \geq 0 \\ 0, & x < 0 \end{cases}$

d. $\lim_{x \rightarrow \frac{3}{2}} x + 4$

e. $\lim_{x \rightarrow \frac{3}{2}} \frac{2x^2 + 5x - 12}{2x - 3}$

f. $\lim_{x \rightarrow \frac{3}{2}} \begin{cases} \frac{2x^2 + 5x - 12}{2x - 3}, & x \neq \frac{3}{2} \\ 2, & x = \frac{3}{2} \end{cases}$