

SECTION 2-3 EXAMPLES

1. Evaluate each limit. Show your work or explain your reasoning.

(a) $\lim_{x \rightarrow 8} (1 + \sqrt[3]{x})(2 - x^2)$

(b) $\lim_{x \rightarrow 4} \frac{x^2 - 4x}{x^2 - x - 12}$

(c) $\lim_{x \rightarrow 4} \frac{x^2}{x^2 - x - 12}$

(d) $\lim_{x \rightarrow -3} \frac{\frac{1}{3} + \frac{1}{x}}{x + 3}$

(e) $\lim_{x \rightarrow 0^-} \frac{|x|}{x}$

(f) $\lim_{x \rightarrow 0} \frac{|x|}{x}$

(g) $\lim_{x \rightarrow 5^-} \frac{3x - 15}{|5 - x|}$

(h) $\lim_{x \rightarrow \pi} \frac{2x}{\tan^2 x}$