SECTION 2-3 EXAMPLES

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

   (a) $\lim\limits_{x \to 8} (1 + \sqrt[3]{x})(2 - x^2)$

   (b) $\lim\limits_{x \to 4} \dfrac{x^2 - 4x}{x^2 - x - 12}$

   (c) $\lim\limits_{x \to 4} \dfrac{x^2}{x^2 - x - 12}$

   (d) $\lim\limits_{x \to -3} \dfrac{\frac{1}{3} + \frac{1}{x}}{x + 3}$

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

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

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

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