

I. Evaluate the following limits, if they exist.

1.) $\lim_{x \rightarrow 3} (3x^2 + 9x - 7)$

2.) $\lim_{x \rightarrow -2} (x^2 - 8x + 12)$

3.) $\lim_{x \rightarrow -1} \frac{2x^3 - 5x^2 - 22x - 15}{x^3 - 3x^2 + 4}$

4.) $\lim_{x \rightarrow 4} \frac{x^3 - 6x^2 + 32}{x^3 - 3x^2 - 24x + 80}$

5.) $\lim_{x \rightarrow 2} \frac{3x^3 - x^2 - 32x + 44}{5x^2 - 9x - 2}$

6.) $\lim_{x \rightarrow 1} \frac{x^4 - 2x^3 + 2x - 1}{x^3 + x^2 - 14x - 24}$

$$7.) \lim_{x \rightarrow -2} \frac{6x^3 + 7x^2 - 14x - 8}{x^2 - 4}$$

$$8.) \lim_{x \rightarrow 7} \frac{2x^2 - 11x - 21}{3 - \sqrt{x+2}}$$

$$9.) \lim_{x \rightarrow 1^-} \frac{2x^3 - 3x^2 - 29x - 30}{x^2 - 1}$$

$$10.) \lim_{x \rightarrow 3^+} \frac{3x^3 + 16x^2 + 23x + 6}{x^3 - 7x - 6}$$
