

Calculer les limites suivantes: DETERMINATION DU SIGNE DE L'INFINI

$$1) \lim_{x \rightarrow (-3)^+} \frac{3x^2 - 4x + 1}{x + 3} = \infty$$

$$\lim_{x \rightarrow (-3)^-} \frac{3x^2 - 4x + 1}{x + 3} = -\infty$$

$$2) \lim_{x \rightarrow (-1)^+} \frac{\sqrt{x^2 + 1}}{x + 1} = \infty$$

$$\lim_{x \rightarrow (-1)^-} \frac{\sqrt{x^2 + 1}}{x + 1} = -\infty$$

$$3) \lim_{x \rightarrow 2} \frac{5 - 4x}{x^2 - 4x + 4} = -\infty$$

$$4) \lim_{x \rightarrow 2^+} \frac{\sqrt{x+3}}{x-2} = \infty$$

$$\lim_{x \rightarrow 2^-} \frac{\sqrt{x+3}}{x-2} = -\infty$$

$$5) \lim_{x \rightarrow -3} \frac{x^2 - 1}{(x + 3)^2} = \infty$$

Calculer les limites suivantes: INDETERMINATION  $\left[\frac{0}{0}\right]$

$$1) \lim_{x \rightarrow \frac{1}{3}} \frac{-3x^2 - 14x + 5}{3x^2 + 2x - 1} = -4$$

$$2) \lim_{x \rightarrow -2} \frac{x^2 - 3x - 10}{x^2 - 4} = \frac{7}{4}$$

$$3) \lim_{x \rightarrow 1} \frac{1 - x}{x^3 - 2x^2 - 5x + 6} = \frac{1}{6}$$

$$4) \lim_{x \rightarrow 5} \frac{\sqrt{3x+1} - 4}{x - 5} = \frac{3}{8}$$

$$5) \lim_{x \rightarrow 3} \frac{\sqrt{2x+3} - 3}{x^2 - 2x - 3} = \frac{1}{12}$$

$$6) \lim_{x \rightarrow (-1)^+} \frac{2 - \sqrt{1-3x}}{x^2 + 2x + 1} = \infty$$

$$\lim_{x \rightarrow (-1)^-} \frac{2 - \sqrt{1-3x}}{x^2 + 2x + 1} = -\infty$$

$$7) \lim_{x \rightarrow 2} \frac{x^2 + 3x - 10}{\sqrt{x+7} - 3} = 42$$

$$8) \lim_{x \rightarrow 3} \frac{\sqrt{x} - 3}{\sqrt{2x-2} - 3} = 3 - \sqrt{3}$$