Ex 3 :

1. $\lim\limits_{\substack{x \to 2 \\ x > 2}} (x-2) = 0$

2. $x - 2 > 0 \iff x > 2$

Donc $x-2$ est positif sur $]2 ; +\infty[$

3. $\lim\limits_{\substack{x \to 2 \\ x > 2}} f(x) = \dfrac{5}{0} = +\infty$

Ex 4 :

1. $\lim\limits_{x \to -\infty} f(x) = \lim\limits_{x \to -\infty} \dfrac{2x}{x} = \lim\limits_{x \to -\infty} 2 = 2$

2. $x + 1 > 0 \iff x > -1$

$-\infty$		-1		$+\infty$
	$-$	ϕ	$+$	

$x+1$ est négatif sur I

3. $\lim\limits_{\substack{x \to -1 \\ x < -1}} f(x) = \dfrac{2 \times (-1) - 3}{-1+1} = \dfrac{-5}{0} = +\infty$

Ex 5 :

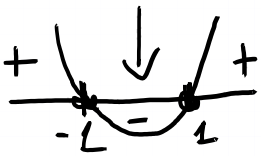
1. $\lim\limits_{x \to +\infty} f(x) = \lim\limits_{x \to +\infty} \frac{x^2}{x} = \lim\limits_{x \to +\infty} x = +\infty$

2. $\lim\limits_{\substack{x \to 3 \\ x > 3}} f(x) = \frac{3^2+1}{3-3} = \frac{10}{0} = +\infty$

car $x > 3 \Rightarrow x - 3 > 0$

Ex 6 : $\lim\limits_{\substack{x \to 1 \\ x < 1}} f(x) = \frac{1+2}{1-1} = \frac{3}{0} = -\infty$

Signe de $x^2 - 1$



$\lim\limits_{\substack{x \to -1 \\ x > -1}} f(x) = \frac{-1+2}{1-1} = \frac{1}{0} = -\infty$