1. $I = \mathbb{R}$ $\quad f(x) = 2x^2 - 8x - 3$

Calcul de $f'(x)$:

$f'(x) = 4x - 8$

Signe de $f'(x)$:

$4x - 8 > 0 \iff 4x > 8 \iff x > 2$

x	$-\infty$		2		$+\infty$
f'		$-$	0	$+$	

Variations de $f(x)$:

x	$-\infty$		2		$+\infty$
	$+\infty$				$+\infty$
f		$\searrow$	$f(2)$	$\nearrow$	

$$\lim_{x \to -\infty} f(x) = \lim_{x \to -\infty} 2x^2 = +\infty$$

$$f(2) = 2 \times 2^2 - 8 \times 2 - 3 = 2 \times 4 - 16 - 3 = -11$$

$$\lim_{x \to +\infty} f(x) = \lim_{x \to +\infty} 2x^2 = +\infty$$