Ex 5

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

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

Signe de f' :

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

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

Tableau de variations de f :

x	$-\infty$		2		$+\infty$
f	$+\infty$	↘	$f(2)$	↗	$+\infty$

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

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

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