8. $f'(x) = -9x^2 + 6x$

Signe de f' : $a = -9 \quad b = 6 \quad c = 0$

$\Delta = 36 - 4 \times (-9) \times 0 = 36$ 

$x_1 = \frac{-6-6}{-18} = \frac{-12}{-18} = \frac{2}{3} \qquad x_2 = \frac{-6+6}{-18} = 0$

x	$-\infty$		0		$2/3$		$+\infty$
f'		$-$	0	$+$	0	$-$	
f	$+\infty$	↘	$f(0)$	↗	$f(\frac{2}{3})$	↘	$-\infty$

$\lim_{x \to -\infty} f(x) = +\infty \qquad f(0) = 0$

$f\left(\frac{2}{3}\right) = 3\left(\frac{2}{3}\right)^2 - 3\left(\frac{2}{3}\right)^3 = 3 \times \frac{4}{9} - 3 \times \frac{8}{27} =$

$= \frac{12}{9} - \frac{24}{27} = \frac{36-24}{27} = \frac{12}{27} = \frac{4}{9}$

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