$$f(x) = 5 + 12x - x^3$$
$$f'(x) = 12 - 3x^2$$
$$f''(x) = -6x$$

$$12 - 3x^2 = 0 \quad x^2 = 4 \quad x = \pm 2 \quad \text{c.p.}$$

$$-6x = 0 \quad x = 0$$
$$\text{ip}$$

	$x < -2$	$-2 < x < 2$	$x > 2$
$f'(x)$	$-$	$+$	$-$

$f''(x)$	$+$	$-$
	$x < 0$	$x > 0$

dec $(-\infty, -2], (2, +\infty)$

inc $[-2, 2]$

cd $(-\infty, 0)$

cv $(0, +\infty)$

cp   2, -2

$f''(2) = -6(2) = (-)$ ⌢   max

$f''(-2) = -6(-2) = (+)$ ⌣   min

5) $v(t) = 9t^2 - 8t - 6$

   $a(t) = 18t - 8$