14. $f'(x) = 3x^2 - 48x + 144$

$a = 3 \quad b = -48 \quad c = 144$

$\Delta = (-48)^2 - 4 \times 3 \times 144 = 576$

$x_1 = \dfrac{48 - 24}{6} = 4 \qquad x_2 = \dfrac{48 + 24}{6} = 12$

x	0		4		12	
f'		$+$	$\circ$	$-$	$\circ$	/////
f						

$f(0)$ ↗ $f(4)$ ↘ $f(12)$

$f(0) = 0 \qquad f(4) = 256 \qquad f(12) = 0$