Fill in the Blanks	Using the Gradient Function		

Equation	Gradient Function	Point P	Gradient at P
$y = x^2$	$\frac{dy}{dx} = 2x$	$(2, 4)$	4
$y = x^3 + x$	$\frac{dy}{dx} = 3x^2 + 1$	$(1, 2)$	4
$y = 6x - x^2$	$\frac{dy}{dx} = 6 - 2x$	$(4, 8)$	-2
$y = x^3 - 3x^2 + 4x$	$\frac{dy}{dx} = 3x^2 - 6x + 4$	$(-1, 0)$	13
$y = 5x^2 - 7x + 1$	$\frac{dy}{dx} = 10x - 7$	$(-2, 36)$	-27
$y = (2x + 5)(x - 3)$	$\frac{dy}{dx} = 4x - 1$	$(3, 0)$	11
$y = 3x(x - 1)^2$	$\frac{dy}{dx} = 9x^2 - 12x + 3$	$(-1, -12)$	24
$y = \frac{1}{x^2}$	$\frac{dy}{dx} = -\frac{2}{x^3}$	$\left(2, \frac{1}{4}\right)$	$-\frac{1}{4}$
$y = \frac{x^4 - 5x^3}{x}$	$\frac{dy}{dx} = 3x^2 - 10x$	$(1, -4)$	-7
$y = \frac{2x^3 + x}{x^2}$	$\frac{dy}{dx} = 2 - \frac{1}{x^2}$	$\left(3, \frac{19}{3}\right)$	$\frac{17}{9}$
$y = 10 - 2x - x^2$	$\frac{dy}{dx} = -2 - 2x$	$(4, -14)$	-10
$y = x^4 + 3$	$\frac{dy}{dx} = 4x^3$	$(2, 19)$	32
$y = (x + 4)(3x - 5)$	$\frac{dy}{dx} = 6x + 7$	$(-1, -24)$	1
$y = x^2 + \frac{54}{x}$	$\frac{dy}{dx} = 2x - \frac{54}{x^2}$	$(3, 27)$	0
$y = x^3 + 3x^2 - x$	$\frac{dy}{dx} = 3x^2 + 6x - 1$	$(1, 3)$	8