

Question			Answer	Mark	AO	Guidance
8			$\frac{dy}{dx} = 3x^2 + 6x - 9$	M1*	3.1a	Attempt differentiate; ≥ 2 terms correct
			$3x^2 + 6x - 9 = 0$	M1 dep*	1.1	Their $\frac{dy}{dx} = 0$, may be implied by A1FT
			$x = -3$ or 1	A1FT	1.1	FT their $\frac{dy}{dx} = 0$ (must be a quadratic with two roots)
			$y = 15$ or -17	A1FT	1.1	FT their x-values (must have two values)
			Gradient $= \frac{15 - (-17)}{-3 - 1}$ oe	M1	2.1	FT their coordinates (if correct then value is -8)
			$y - 15 = -8(x + 3)$ or $y + 17 = -8(x - 1)$ or $y = -8x + c$ with (x, y) substituted	M1**	1.1	Correct method for equation, FT gradient and coordinates ($c = -9$)
			$-15 = -8(x + 3)$ or $17 = -8(x - 1)$ or $0 = -8x - 9$	M1 dep**	1.1	Substitute $y = 0$ into their AB . May be implied by answer
			Meets x -axis at $\left(-\frac{9}{8}, 0\right)$	A1	1.1	Allow $(-1.125, 0)$ but must be given as coordinates.
				[8]		