Question Number	Scheme	Marks
1(a)	$\left(\frac{\mathrm{d}y}{\mathrm{d}x}=\right) 6\times 3(3x-2)^5 \quad (=18(3x-2)^5)$	M1A1
		(2)
(b)	$"18"(3\times\frac{1}{3}-2)^{"5"}=-18$ $-18\rightarrow\frac{1}{18}$ $y-1="\frac{1}{18}"\left(x-\frac{1}{3}\right)$ $3x-54y+53=0$	M1 M1 dM1 A1
		(4)
		(6 marks)

(a)

M1 Applies the chain rule to achieve a form of $A(3x-2)^5$ which may be unsimplified.
The index does not need to be processed for this mark.

Alternatively, multiplies out the brackets to achieve an expression of the form $Ax^6+Bx^5+Cx^4+Dx^3+Ex^2+Fx+G$ (where all coefficients do not need to be simplified) and reduces the power by 1 on at least one of the terms. You will need to check this carefully to make sure it is the relevant term where the power has decreased

eg $Bx^5\rightarrow\ldots\times Bx^4$

Condone slips in their expansion.

(The actual expansion is $64-576x+2160x^2-4320x^3+4860x^4-2916x^5+729x^6$)

A1 $\left(\frac{\mathrm{d}y}{\mathrm{d}x}=\right)18(3x-2)^5$ or unsimplified equivalent eg $6\times 3(3x-2)^5$ but the index must be processed. If they have multiplied out then accept $-576+4320x-12960x^2+19440x^3-14580x^4+4374x^5$.

Accept x^1 for x