Q	Marking instructions	AO	Marks	Typical solution
4	Uses one law of logs	1.1a	M1	$2\log_3(x-2) - \log_3(2x+5) = 1$
	Obtains $\log_3 \frac{(x-2)^2}{(2x+5)} = 1$	1.1b	A1	$\log_3 \frac{(x-2)^2}{(2x+5)} = 1$
	Obtains a correct equation not involving logs ACF	1.1b	A1	$\frac{(x-2)^2}{(2x+5)} = 3$
	Simplifies their equation to a quadratic which involves $(x-2)^2$ and solves that quadratic to obtain two real values of x	1.1a	M1	$x^2 - 4x + 4 = 6x + 15$ $x^2 - 10x - 11 = 0$ $x = -1$ or $x = 11$
	Obtains $x = 11$ and rejects $x = -1$. Must indicate that log of a negative number does not exist OE	2.4	R1	Cannot take the log of a negative value $\therefore x = 11$
	Question 4 Total		**5**	