Question	Scheme		Marks	AOs
5 (a)	Identifies one of the two errors "You cannot use the subtraction law without dealing with the 2 first" " They undo the logs incorrectly. It should be $x = 2^3 = 8$ "		B1	2.3
	Identifies both errors. See above.		B1	2.3
			(2)	
(b)	$\log_2\left(\dfrac{x^2}{\sqrt{x}}\right) = 3$	$\dfrac{3}{2}\log_2(x) = 3$	M1	1.1b
	$x^{\frac{3}{2}} = 2^3$ or $\dfrac{x^2}{\sqrt{x}} = 2^3$	$x = 2^2$	M1	1.1b
	$x = \left(2^3\right)^{\frac{2}{3}} = 4$	$x = 4$	A1	1.1b
			(3)	
				(5 marks)

(a)
B1: States one of the two errors.
Error One: Either in words states 'They cannot use the subtraction law without dealing with the 2 first' or writes ' that line 2 should be $\log_2\left(\dfrac{x^2}{\sqrt{x}}\right)$ $(= 3)$' If they rewrite line two it must be correct. Allow 'the coefficient of each log term is different so we cannot use the subtraction law'
Allow responses such as 'it must be $\log x^2$ before subtracting the logs'
Do not accept an incomplete response such as "the student ignored the 2". **There must be some reference to the subtraction law as well.**
Error Two: Either in words states 'They undo the log incorrectly' or writes that 'if $\log_2 x = 3$ then $x = 2^3 = 8$' If it is rewritten it must be correct. Eg $x = \log_2 9$ is B0
B1: States both of the two errors. (See above)

(b)
M1: Uses a correct method of combining the two log terms. Either uses both the power law and the subtraction law to reach a form $\log_2\left(\dfrac{x^2}{\sqrt{x}}\right) = 3$ oe. Or uses both the power law and subtraction to reach $\dfrac{3}{2}\log_2(x) = 3$
M1: Uses correct work to "undo" the log. Eg moves from $\log_2(Ax^n) = b \Rightarrow Ax^n = 2^b$
     This is independent of the previous mark so allow following earlier error.
A1: cso $x = 4$ achieved with at least one intermediate step shown. Extra solutions would be A0
SC: If the "answer" rather than the "solution" is given score 1,0,0.