

Question	Scheme	Marks	AOs
6	$3^x = 3\sqrt{3}(9^{y+1})$		
	$3^x = 3^{1.5} (3^2)^{y+1}$	B1	1.1b
	$3^x = 3^{1.5+2y+2} \Rightarrow x = 1.5 + 2y + 2$	M1	2.1
	$y = \frac{1}{2}x - \frac{7}{4}$	A1	1.1b
		(3)	

(3 marks)

Notes:

B1: Writes a correct equation in powers of 3 only.

M1: Complete process of writing a correct equation in powers of 3 only and using correct index laws to obtain an equation linking x with y without indices.

A1: $y = \frac{1}{2}x - \frac{7}{4}$ o.e. in required form.