12	$3^4 = \frac{3^x}{9^{3x}}$ **or** $81 = \frac{3^x}{(3^2)^{3x}}$	$9^2 = \frac{3^x}{9^{3x}}$ **or** $81 = \frac{(9^{0.5})^x}{9^{3x}}$			M1 replacing 81 with 3^4 **or** 9^{3x} with $(3^2)^{3x}$ (or 3^{6x}) **or** replacing 81 with 9^2 **or** 3^x with $(9^{0.5})^x$ (in an equation)
	eg $4 + 6x = x$ or $4 = x - 2(3x)$ oe	eg $2 = 0.5x - 3x$ oe			M1 a correct equation using powers
			−0.8	3	A1 oe, dep on at least M1
					Total 3 marks

13	e.g. $x = 0.6\dot{8}\dot{1}$ and $100x = 68.\dot{1}\dot{8}$ **or** $10x = 6.\dot{8}\dot{1}$ and $1000x = 681.\dot{8}\dot{1}$			M1 e.g. two decimals that when subtracted give a finite decimal (must show understanding of recurring figures by 'dot' or at least 2 lots of 18 or 81 after the decimal point). Algebra required, use of any letter.
	$99x = 67.5$, $x = \frac{67.5}{99} = \frac{15}{22}$ **or** $990x = 675$, $x = \frac{675}{990} = \frac{15}{22}$ oe	show	2	A1 dep for completing the 'show that' arriving at given answer from correct working.
				Total 2 marks