Paper: 1MA1/3H

Question	Answer	Mark	Mark scheme	Additional guidance
11 (a)	2	M1	for a correct start, using one rule of indices, eg $3^n \times 3^{12} = 3^{14}$ or $3^n \times 3^{20} = 3^{22}$ or $3^{20} \div 3^8 = 3^{12}$ or $3^{14} \times 3^8 = 3^{22}$ or $\frac{3^{n+20}}{3^8} = 3^{14}$ or $3^{n-8} \times 3^{20} = 3^{14}$ **or** for forming an equation in n, eg $n + 20 - 8 = 14$ oe or (n =) $14 + 8 - 20$	
		A1	cao	Allow an answer of $3^n = 3^2$
			SCB1 for an answer of 3^2 if M0 scored	An answer of 9 or $3^n = 9$, $n \neq 2$ on its own is to be awarded 0 marks
(b)	$16m^8$	M1	for an intention to find the cube root and square, eg $\sqrt[3]{64m^{12}}^2$ or $\sqrt[3]{\left(64m^{12}\right)^2}$ or $\left(4m^4\right)^2$ or $\sqrt[3]{4096m^{24}}$ or for am^8 with $a \neq 16$ or $16m^b$ with $b \neq 8$	Do not condone missing brackets 16 or m^8 imply M1 Allow multiplication sign for M1
		A1	cao	Accept $a = 16$, $b = 8$