

Unit 1 - surds			
No.	Question	Answer	HIGHER ONLY
1.1	A surd is	An irrational root	X
1.2	$\sqrt{a} \times \sqrt{b}$	\sqrt{ab}	X
1.3	$\frac{\sqrt{a}}{\sqrt{b}}$	$\frac{\sqrt{a}}{\sqrt{b}}$	X
1.4	$\sqrt{a} + \sqrt{a}$	$2\sqrt{a}$	X
1.5	$\sqrt{a} - \sqrt{a}$	0	X
1.6	$\sqrt{a} \times \sqrt{a}$	a	X
1.7	$(\sqrt{a} + 1)(\sqrt{a} - 1)$	$a - 1$	X
1.8	$a \times a$	a^2 ("a squared")	
1.9	$a \times a \times a$	a^3 ("a cubed")	
1.10	$a \times a \times a \times a$	a^4 ("a to the power of 4")	
1.11	$\sqrt{25}$	"The square root of 25 is 5 or -5"	
1.12	$\sqrt[3]{64}$	"The cube root of 64 is 4"	
1.13	Index	The power	
1.14	$a^b \times a^c$	a^{b+c}	
1.15	$\frac{a^b}{a^c}$	a^{b-c}	
1.16	$(a^b)^c$	a^{bc}	
1.17	a^0	1	
1.18	a^{-b}	$\frac{1}{a^b}$	X
1.19	$\frac{b}{a^c}$	$\sqrt[c]{a^b}$	X
1.20	Standard form	A way of writing very big or very small numbers using powers of 10	
1.21	10^{-2}	0.01	
1.22	10^{-1}	0.1	
1.23	10^0	1	
1.24	10^1	10	
1.25	10^2	100	
1.26	10^3	1000	
1.27	0.0004	4×10^{-4} (the number must be between 1 and 10)	
1.28	40000	4×10^4 (the number must be between 1 and 10)	

Unit 2 - % increase and decrease			
No.	Question	Answer	HIGHER ONLY
2.1	% increase	Find the % and add it on	
2.2	% decrease	Find the % and take it away	
2.3	Compound interest	original x % multiplier <small>number of years</small>	
2.4	Compound depreciation	original x % multiplier <small>number of years</small>	
2.5	Convert a fraction to a decimal	Make the denominator 10 or 100 OR divide the numerator by the denominator	
2.6	Convert a decimal to a %	X 100	
2.7	% increase	Find the % and add it on	

