

Unit 6 – algebraic reasoning				
No.	Question	Answer	Example	HIGHER ONLY
6.1	What is an identity?	An equation that is true for all values of the variables	$2x \equiv x + x$	
6.2	$a^b \times a^c$	a^{b+c}	$2^3 \times 2^4 = 2^7$	
6.3	$\frac{a^b}{a^c}$	a^{b-c}	$\frac{2^7}{2^3} = 2^4$	
6.4	$(a^b)^c$	a^{bc}	$(2^3)^4 = 2^{12}$	
6.5	Even number	2n		X
6.6	Odd number	2n + 1		X
6.7	Consecutive numbers	n, n + 1, n + 2, n + 3		X
6.8	Consecutive even numbers	2n, 2n + 2, 2n + 4, 2n + 6		X
6.9	Consecutive odd numbers	2n + 1, 2n + 3, 2n + 5		X
6.10	$y = mx + c$	<i>m = gradient</i> <i>Difference in y = $\frac{y_2 - y_1}{x_2 - x_1}$</i> <i>Difference in x = $\frac{y_2 - y_1}{x_2 - x_1}$</i> <i>c = y intercept (where the line crosses y axis)</i>		
6.11	To find the mid-point	$(\frac{x_1+x_2}{2}, \frac{y_1+y_2}{2})$		
6.12	Parallel lines	Have the same gradient	$y = 3x + 4$ $y = 3x - 6$	
6.13	Perpendicular lines	Gradient = $-\frac{1}{\text{gradient}}$	$y = 3x + 4$ $y = -\frac{1}{3}x - 6$	
6.14	Three equations of motion are...	$v = u + at$ $s = ut + \frac{1}{2}at^2$ $v^2 = u^2 + 2as$		X
6.15	\leq	Less than or equal to		
6.16	$<$	Less than		
6.17	\geq	Greater than or equal to		
6.18	$>$	Greater than		

Unit 7 – geometric reasoning				
No.	Question	Answer	Example	HIGHER ONLY
7.1	Adjacent angles on a straight line sum to...	180°		
7.2	Angles around a point sum to...	360°		
7.3	Vertically opposite angles are...	Equal		
7.4	Interior angles in a triangle...	sum to 180°		
7.5	Interior angles in a quadrilateral...	sum to 360°		
7.6	All angles in an equilateral triangle...	are 60°		
7.7	Alternate angles...	are equal		
7.8	Corresponding angles...	are equal		
7.9	Co-interior angles...	add up to 180		
7.10	Polygon	Any 2D shape formed with straight lines		
7.11	Regular polygon	A 2D shape formed with equal straight lines and equal interior angles		
7.12	Interior angles	The angles inside a polygon		
7.13	Sum of interior angles	(number of sides – 2) x 180°		
7.14	Exterior angles	The angles outside a polygon		
7.15	Exterior angles...	Sum to 360°		
7.16	Interior and exterior angles...	Sum to 180°		

Date (week commencing)	Numbers to learn
7 th Jan	6.1 – 6.9
14 th Jan	6.5 – 6.14
21 st Jan	6.1 – 6.18
28 th Jan	6.1 – 6.18
4 th Feb	7.1 – 7.9
11 th Feb	7.1 – 7.16