

	National Curriculum Statement	All students																																																		
		Fluency	Reasoning	Problem Solving																																																
	<p>Use simple formulae.</p>	<ul style="list-style-type: none"> Calculate the value of the letter in each equation. <table border="1"> <tr><td>$3a = 15$</td><td>$a =$</td></tr> <tr><td>$5b = 10$</td><td>$b =$</td></tr> <tr><td>$63 = 9c$</td><td>$c =$</td></tr> <tr><td>$12d = 48$</td><td>$d =$</td></tr> </table> <ul style="list-style-type: none"> Calculate the value of the letter in each equation. <table border="1"> <tr><td>$20 = 4a + 4$</td><td>$a =$</td></tr> <tr><td>$3b + 5 = 11$</td><td>$b =$</td></tr> <tr><td>$14 = 6c - 4$</td><td>$c =$</td></tr> <tr><td>$2d - 5 = 5$</td><td>$d =$</td></tr> </table> <ul style="list-style-type: none"> A function machine adds 7 to any number that is inputted. <p>What is the output when the input is:</p> <p>a) 15 b) 12</p> <p>What is the input when the output is:</p> <p>a) 25 b) 42</p> <div style="text-align: center;"> <pre> graph TD Input[Input] --> Plus7[+7] Plus7 --> Output[Output] </pre> </div>	$3a = 15$	$a =$	$5b = 10$	$b =$	$63 = 9c$	$c =$	$12d = 48$	$d =$	$20 = 4a + 4$	$a =$	$3b + 5 = 11$	$b =$	$14 = 6c - 4$	$c =$	$2d - 5 = 5$	$d =$	<ul style="list-style-type: none"> If a stands for a number, complete the table below: <table border="1"> <thead> <tr> <th>a</th> <th>4a</th> <th>4a + 2</th> </tr> </thead> <tbody> <tr> <td>12</td> <td></td> <td></td> </tr> <tr> <td></td> <td>36</td> <td></td> </tr> <tr> <td></td> <td></td> <td>102</td> </tr> </tbody> </table> <p>If the largest number in the table above was 894. What would the largest total of a be?</p> <ul style="list-style-type: none"> Helen says, <div style="border: 1px solid blue; border-radius: 15px; padding: 10px; background-color: #4a7ebb; color: white; text-align: center; margin: 10px 0;"> <p>“If there is a number before a letter, you multiply. Eg 5b If there is a number after a letter, you divide. Eg 6^2”</p> </div> <p>Is Helen correct?</p> <p>Explain your reasoning.</p> <ul style="list-style-type: none"> Kat substitutes $b = 3$ into the formula $4b + 5$. She gets the answer 17. Is she correct? Explain your answer. 	a	4a	4a + 2	12				36				102	<ul style="list-style-type: none"> Find the totals of the missing rows and columns. <table border="1" style="text-align: center;"> <tr> <td></td> <td></td> <td></td> <td></td> <td style="background-color: #4a7ebb; color: white; padding: 5px;">54</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td style="background-color: #4a7ebb; color: white; padding: 5px;">46</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td style="background-color: #4a7ebb; color: white; padding: 5px;">48</td> </tr> </table> <ul style="list-style-type: none"> 7 pears and 1 banana cost 57p. 3 bananas, 1 pear and 2 apples cost 41p. 1 pear, 2 apples and 2 bananas cost 33p. How much does 1 piece of each fruit cost? <p>Can you write each of the sentences above as a formula?</p>					54					46										48
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Measurement	Convert between miles and kilometres.	<ul style="list-style-type: none"> Complete the statements: <ul style="list-style-type: none"> a) 5 miles is approximately km. b) 40 kilometres is approximately miles. Convert between miles and kilometres rounding to the nearest whole number: 	<ul style="list-style-type: none"> Agree or disagree? It is easier to convert from miles to kilometres rather than kilometres to miles. Explain your answer. Always, sometimes, never When converting from miles to kilometres, it is easier to multiply by 1.5 then add the extra tenths on at the end. Michael ran the London Marathon which was 26.2miles. Shafi ran 42 kilometres in a charity race over 3 days. Who ran the furthest? 	<ul style="list-style-type: none"> The tally chart below shows the number of miles different drivers did in a day. <table border="1" data-bbox="1675 352 2033 608"> <tbody> <tr> <td>Mihal</td> <td> </td> </tr> <tr> <td>David</td> <td> </td> </tr> <tr> <td>Abdul</td> <td> </td> </tr> <tr> <td>Claire</td> <td> </td> </tr> </tbody> </table> <p>When Stefan's miles are added to it the whole amount of kilometres driven can be rounded to 50 when rounded to the nearest 10. How many miles did Stefan drive? Have you found all the possibilities?</p> Miles and his 6 friends take part in a 5km charity race. Between them, how many miles do they run altogether? 	Mihal		David		Abdul		Claire						
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	<table border="1" data-bbox="658 635 1030 991"> <thead> <tr> <th>Miles</th> <th>Kilometres</th> </tr> </thead> <tbody> <tr> <td></td> <td>1.6km</td> </tr> <tr> <td>2 miles</td> <td></td> </tr> <tr> <td></td> <td>4.8km</td> </tr> <tr> <td>5 miles</td> <td></td> </tr> <tr> <td></td> <td>16km</td> </tr> <tr> <td>20 miles</td> <td></td> </tr> </tbody> </table> <ul style="list-style-type: none"> The distance from Edinburgh to Glasgow is approximately 80km. What is this in miles to the nearest whole number? 	Miles	Kilometres		1.6km	2 miles			4.8km	5 miles			16km	20 miles			
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