

Column Addition

Column Subtraction

Column Multiplication

Short and Long Division

	4	5	8	6	4
+	2	3	4	9	7
	6	9	3	6	1

1    1    1

	3	5	<del>7</del> <sup>6</sup>	<del>4</del> <sup>13</sup>	<del>7</del> <sup>12</sup>
-		3	4	7	6
	3	2	2	6	6

	1	3	2
	1	5	4
x		2	6
	9	2	4
3	0	8	0
4	0	0	4

1    1

		4	4	0	5
12	5	2	8	6	0

		1	2	0	r	3
14	1	6	8	3		
	1	4	0	0	-	
		2	8	3		
		2	8	0	-	
				3		

<b>B</b>	<b>Brackets</b>	Complete anything in brackets first	$10 \times (4 + 2) =$ $10 \times 6 = 16$
<b>O</b>	<b>Orders</b>	Squares, cubes, square roots	$5 + 3^2 =$ $5 + 9 = 14$
<b>D</b>	<b>Division</b>	Next do division and multiplication (if there are both, complete left to right)	$10 + 6 \div 2 =$ $10 + 3 = 13$
<b>M</b>	<b>Multiplication</b>		$10 - 4 \times 2 =$ $10 - 8 = 2$
<b>A</b>	<b>Addition</b>	Then do addition and subtraction (if there are both, complete left to right)	$10 \times 4 + 7 =$ $40 + 7 = 47$
<b>S</b>	<b>Subtraction</b>		$10 \div 2 - 3 =$ $5 - 3 = 2$

Term	Definition	Example																		
<b>factor</b>	a number that divides exactly into another number – (helpful to find them in pairs)	factors of 12 are <b>1 and 12 2 and 6 3 and 4</b>																		
<b>common factor</b>	factors of two numbers that are the same	<p>Factors of 48</p> <table border="1" data-bbox="1145 354 1634 396"> <tr> <td>1</td><td>2</td><td>3</td><td>4</td><td>6</td><td>8</td><td>12</td><td>16</td><td>24</td><td>48</td> </tr> </table> <p>Factors of 30</p> <table border="1" data-bbox="1145 458 1634 501"> <tr> <td>1</td><td>2</td><td>3</td><td>5</td><td>6</td><td>10</td><td>15</td><td>30</td> </tr> </table> <p>Common factors are 1, 2, 3, 6</p>	1	2	3	4	6	8	12	16	24	48	1	2	3	5	6	10	15	30
1	2	3	4	6	8	12	16	24	48											
1	2	3	5	6	10	15	30													
<b>prime number</b>	a number with only 2 factors: 1 and itself	2, 3, 5, 7, 11, 13, 17, 19...																		
<b>composite number</b>	a number with more than two factors	20 is composite factors are 1, 20 2, 10 4, 5																		
<b>prime factor</b>	a factor that is prime	Factors of 10 are 1, 10 <b>2,5</b> these are prime factors																		
<b>multiple</b>	the result of multiplying a number by an integer	Multiples of 7 are 7, 14, 21, 28 ...																		
<b>common multiple</b>	multiples of two numbers that are the same	<p>Multiples of 3</p> <table border="1" data-bbox="1131 943 1622 986"> <tr> <td>3</td><td>...</td><td>18</td><td>21</td><td>24</td><td>...</td><td>39</td><td>42</td> </tr> </table> <p>Multiples of 7</p> <table border="1" data-bbox="1131 1048 1622 1090"> <tr> <td>7</td><td>14</td><td>21</td><td>28</td><td>35</td><td>42</td> </tr> </table> <p>Common multiples are 21 42 ...</p>	3	...	18	21	24	...	39	42	7	14	21	28	35	42				
3	...	18	21	24	...	39	42													
7	14	21	28	35	42															
<b>square numbers</b>	the result when a number has been multiplied by itself	25 ( $5^2 = 5 \times 5$ )                      49 ( $7^2 = 7 \times 7$ )																		
<b>cube numbers</b>	the result when a number has been multiplied by itself 3 times	8 ( $2^3 = 2 \times 2 \times 2$ )                      27 ( $3^3 = 3 \times 3 \times 3$ )																		