

Year 6 Spring 2 Maths Knowledge Organiser

<u>BIDMAS</u>	<u>Multiples and factors</u>	<u>FDP</u>	<u>Square Numbers</u> <u>Roman Numerals</u>																																																																																																				
<div style="text-align: center; font-size: 2em; font-weight: bold; color: blue;">B</div> <div style="text-align: center; font-size: 2em; font-weight: bold; color: green;">I</div> <div style="text-align: center; font-size: 2em; font-weight: bold; color: orange;">D</div> <div style="text-align: center; font-size: 2em; font-weight: bold; color: red;">M</div> <div style="text-align: center; font-size: 2em; font-weight: bold; color: red;">A</div> <div style="text-align: center; font-size: 2em; font-weight: bold; color: red;">S</div> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">() <small>Brackets</small></div> <div style="text-align: center;">x^y <small>Indices</small></div> <div style="text-align: center;">÷ or × <small>Divide & Multiply</small></div> <div style="text-align: center;">+ or - <small>Add & Subtract</small></div> </div> <div style="text-align: center; border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;"> Order of Operations </div>	<p>Multiples are all the numbers in a times table. Eg. The multiples of 2 are all the numbers in the 2 times table: 2, 4, 6, 8, 10 and so on.</p> <p>Factors: Numbers that you can divide a bigger number by e.g.</p> <div style="text-align: center; border: 1px solid gray; padding: 10px; margin: 10px 0;"> <p>Find the factors of 18</p> <p>The factors of 18 are 1, 2, 3, 6, 9 and 18</p> </div>	<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr style="background-color: #cccccc;"> <th>Percentage</th> <th>Fraction</th> <th>Decimal</th> </tr> </thead> <tbody> <tr><td>100%</td><td>1</td><td>1</td></tr> <tr><td>75%</td><td>3/4</td><td>0.75</td></tr> <tr><td>66.66%</td><td>2/3</td><td>0.66</td></tr> <tr><td>50%</td><td>1/2</td><td>0.50</td></tr> <tr><td>33.33%</td><td>1/3</td><td>0.33</td></tr> <tr><td>25%</td><td>1/4</td><td>0.25</td></tr> <tr><td>20%</td><td>1/5</td><td>0.20</td></tr> <tr><td>12.5%</td><td>1/8</td><td>0.125</td></tr> <tr><td>10%</td><td>1/10</td><td>0.10</td></tr> <tr><td>5%</td><td>1/20</td><td>0.05</td></tr> <tr><td>2.5%</td><td>1/40</td><td>0.025</td></tr> </tbody> </table> <table style="width: 100%; border-collapse: collapse;"> <tr><td style="text-align: center; padding: 2px;">1^2</td><td style="padding: 2px;">$1 \times 1 = 1$</td></tr> <tr><td style="text-align: center; padding: 2px;">2^2</td><td style="padding: 2px;">$2 \times 2 = 4$</td></tr> <tr><td style="text-align: center; padding: 2px;">3^2</td><td style="padding: 2px;">$3 \times 3 = 9$</td></tr> <tr><td style="text-align: center; padding: 2px;">4^2</td><td style="padding: 2px;">$4 \times 4 = 16$</td></tr> <tr><td style="text-align: center; padding: 2px;">5^2</td><td style="padding: 2px;">$5 \times 5 = 25$</td></tr> <tr><td style="text-align: center; padding: 2px;">6^2</td><td style="padding: 2px;">$6 \times 6 = 36$</td></tr> <tr><td style="text-align: center; padding: 2px;">7^2</td><td style="padding: 2px;">$7 \times 7 = 49$</td></tr> <tr><td style="text-align: center; padding: 2px;">8^2</td><td style="padding: 2px;">$8 \times 8 = 64$</td></tr> <tr><td style="text-align: center; padding: 2px;">9^2</td><td style="padding: 2px;">$9 \times 9 = 81$</td></tr> <tr><td style="text-align: center; padding: 2px;">10^2</td><td style="padding: 2px;">$10 \times 10 = 100$</td></tr> <tr><td style="text-align: center; padding: 2px;">11^2</td><td style="padding: 2px;">$11 \times 11 = 121$</td></tr> <tr><td style="text-align: center; padding: 2px;">12^2</td><td style="padding: 2px;">$12 \times 12 = 144$</td></tr> </table>	Percentage	Fraction	Decimal	100%	1	1	75%	3/4	0.75	66.66%	2/3	0.66	50%	1/2	0.50	33.33%	1/3	0.33	25%	1/4	0.25	20%	1/5	0.20	12.5%	1/8	0.125	10%	1/10	0.10	5%	1/20	0.05	2.5%	1/40	0.025	1^2	$1 \times 1 = 1$	2^2	$2 \times 2 = 4$	3^2	$3 \times 3 = 9$	4^2	$4 \times 4 = 16$	5^2	$5 \times 5 = 25$	6^2	$6 \times 6 = 36$	7^2	$7 \times 7 = 49$	8^2	$8 \times 8 = 64$	9^2	$9 \times 9 = 81$	10^2	$10 \times 10 = 100$	11^2	$11 \times 11 = 121$	12^2	$12 \times 12 = 144$	<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr><td style="width: 10%; padding: 5px;">1</td><td style="width: 10%; padding: 5px;">I</td><td style="width: 10%; padding: 5px;">20</td><td style="width: 10%; padding: 5px;">XX</td></tr> <tr><td style="padding: 5px;">2</td><td style="padding: 5px;">II</td><td style="padding: 5px;">30</td><td style="padding: 5px;">XXX</td></tr> <tr><td style="padding: 5px;">3</td><td style="padding: 5px;">III</td><td style="padding: 5px;">40</td><td style="padding: 5px;">XL</td></tr> <tr><td style="padding: 5px;">4</td><td style="padding: 5px;">IV</td><td style="padding: 5px;">50</td><td style="padding: 5px;">L</td></tr> <tr><td style="padding: 5px;">5</td><td style="padding: 5px;">V</td><td style="padding: 5px;">60</td><td style="padding: 5px;">LX</td></tr> <tr><td style="padding: 5px;">6</td><td style="padding: 5px;">VI</td><td style="padding: 5px;">70</td><td style="padding: 5px;">LXX</td></tr> <tr><td style="padding: 5px;">7</td><td style="padding: 5px;">VII</td><td style="padding: 5px;">80</td><td style="padding: 5px;">LXXX</td></tr> <tr><td style="padding: 5px;">8</td><td style="padding: 5px;">VIII</td><td style="padding: 5px;">90</td><td style="padding: 5px;">XC</td></tr> <tr><td style="padding: 5px;">9</td><td style="padding: 5px;">IX</td><td style="padding: 5px;">100</td><td style="padding: 5px;">C</td></tr> <tr><td style="padding: 5px;">10</td><td style="padding: 5px;">X</td><td style="padding: 5px;">500</td><td style="padding: 5px;">D</td></tr> </table>	1	I	20	XX	2	II	30	XXX	3	III	40	XL	4	IV	50	L	5	V	60	LX	6	VI	70	LXX	7	VII	80	LXXX	8	VIII	90	XC	9	IX	100	C	10	X	500	D
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<p>Prime Numbers:</p> <p>A number that can only be divided by 1 and itself.</p> <p>Prime Numbers to 50: 2, 3, 5, 7, 11, 13, 17, 19, 23, 29, 31, 37, 41, 43, 47</p>																																																																																																							
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<p>Length: 1cm = 10mm 1m = 100cm 1km = 1000m</p> <p>Distance: 8 km = 5 miles</p> <p>Weight: 1kg = 1000g</p> <p>Capacity: 1l = 1000ml</p>	<p>Length:</p> <div style="text-align: center;"> $\text{km} \xrightarrow{\times 1000} \text{m} \xrightarrow{\times 100} \text{cm} \xrightarrow{\times 10} \text{mm}$ $\xleftarrow{\div 1000} \quad \xleftarrow{\div 100} \quad \xleftarrow{\div 10}$ </div> <p>Weight:</p> <div style="text-align: center;"> $\text{kg} \xrightarrow{\times 1000} \text{g}$ $\xleftarrow{\div 1000}$ </div> <p>Capacity:</p> <div style="text-align: center;"> $\text{l} \xrightarrow{\times 1000} \text{ml}$ $\xleftarrow{\div 1000}$ </div>	<p>Add up all of the numbers and divide the total by the amount of numbers e.g. The mean of 4,5,6,5 is $4+5+6+5 = 20$ 20 divided by $4 = 5$ The mean is 5</p>	<p>Acute - Less than 90° Straight Line - 180° Obtuse - Greater than 90° and less than 180° Reflex - Greater than 180°, but less than 360° Full Rotation - 360° Angles in a quadrilateral - 360° Angles in a triangle - 180° Angles around a point - 360°</p>																																																																																																				
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