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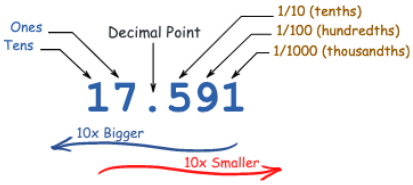
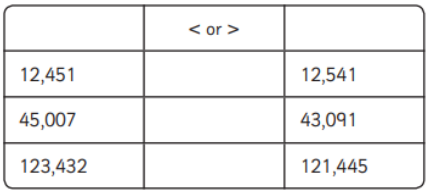
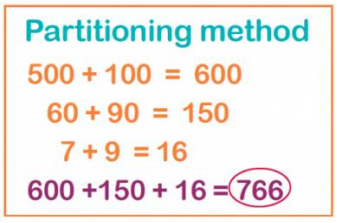
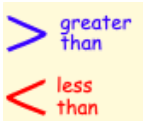
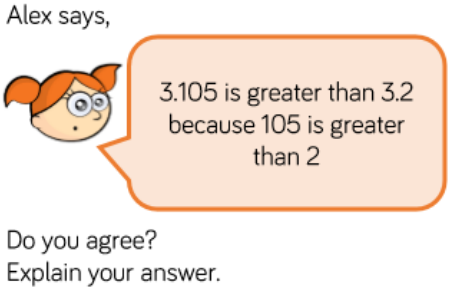
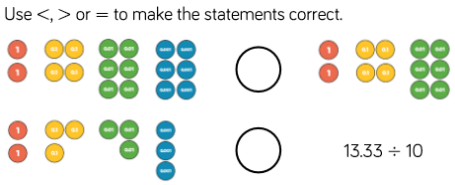
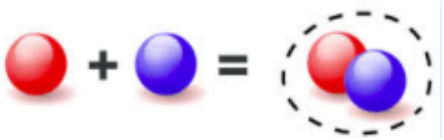
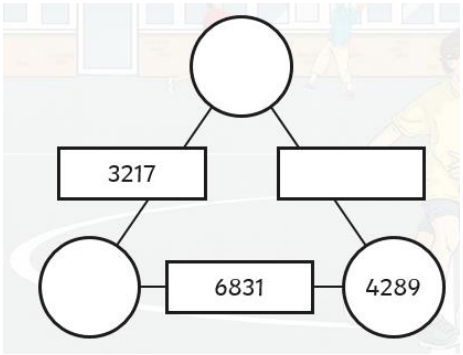
Power Maths Key Vocabulary
Year 5 – Block A

Key Vocabulary	Explanation of Terms	Example Question(s)
place value	A number can have many digits and each digit has a special place and value. Starting from the right the first digit will be at ones place and the second digit at tens place.  	In the number 17.5, what is the value of the 7? (7 ones) Write the numbers below in words: 324,876 222,801 103,076 832,001 986,230 Compare the numbers below using < or >. 
partition	Partitioning is used to make solving maths problems involving large numbers easier by separating them into smaller units. By using partitioning, it helps students to understand the values of each digit. When asked to calculate 567 + 199:  	How can the number 1,227 be partitioned? (1,000, 200, 20 & 7) How can the number 30,392 be partitioned? (30,000, 300, 90, 2) Partition the numbers below: 345,986 860,201 352,844 492,110 800,003
estimate	To estimate is to find a value that is close enough to the right answer, usually with some thought or calculation involved.	Estimate 121 x 11. To estimate this in your head you can think of 120 x 10 = 1200. (Your accurate answer is going to be close to 1200.)

	Estimates can also be used to check how sensible our answers are to questions.	Estimate the sum by rounding each number to the nearest hundred. 1) Tom and Sam both collect marbles. Tom has collected 3,125 and Sam has collected 5,611 marbles. How many marbles do they own together? (8,700) 2) Tim grew 9,219 watermelons and Mike grew 5,856 watermelons this year. How many watermelons did they grow together? (15,100) 3) There are 5,359 crayons in the stockroom. Benny placed 2,498 more crayons in the stockroom. How many crayons are now in the stockroom? (7,900)
rounding	Rounding means to make a number simpler but keeping it close to what it was. The result is less accurate but easier to use in calculations. Example: 73 rounded to nearest 10 is 70 as it is closer to 70 than 80.	What is 89 rounded to the nearest 10? (90) What is 1,234 rounded to the nearest 10? (1,230) What is 5,671 rounded to the nearest 100? (5,700)
order	The arrangement of things in relation to each other according to a particular sequence or pattern. Above, the shapes are in order of how many sides they have.	Put the following numbers in order from smallest to largest: 1.9, 1.09, 19, 0.19, 1. (0.19, 1, 1.09, 1.9, 19) Put the following numbers in order from largest to smallest: 72,727, 27,727, 27,277, 77,227, 72,272 (27,277, 27,727, 72,272, 72,727, 77,227)
greater than (>) **less than (<)**	These symbols can be used to tell us that a number is 'greater than' or 'less than' another number.  When one value is smaller than another we use a "less than" sign (<). Example: 3 < 5	

	When one value is bigger than another we use a "greater than" sign (>). Example: 9 > 6.	
add	To bring two or more numbers (or things) together to make a combined total. 	Jake has £201 and Paula has £377, how much money do they have in total? (£201 + £377 = £578) A large Victorian house was built with 35,901 bricks. A small Victorian house was built using only 7,529 bricks. How many bricks would it take to build a small Victorian house and a large Victorian house? (35,901 + 7,529 = 43,430) Amir goes shopping and buys a pair of trainers for £374.65 and a t-shirt that costs £540.22. How much does he spend altogether? His friend Michael joins him on his shopping spree. He buys a pair of jeans for £792.45 and a coat, which costs £961.11. How much do Michael and Amir spend in total? (£914.87, £2,668.43)
subtract	To take one number away from another. 	If we have 1000 sweets in a jar and we subtract 883 sweets – how many do I have now? (1000 – 883 = 117) Potatoes are sold in bags weighing 2.7kg. Sam uses 1.15kg of potatoes for the Sunday dinner. What is the weight of the remaining potatoes? (2.7 – 1.15 = 1.55kg) A ribbon is 7.50m long. A piece 3.65m in length is used, and then a second piece 2.23m is used. How much ribbon is left? (1.62m)

<table>
<tr>
<td>inverse</td>
<td>The inverse refers to the opposite of another operation.

The inverse of adding is subtracting.
The inverse of multiplying is dividing.</td>
<td>I am thinking of a number, I add 6,538 and then subtract 1,697. I now have 13,574. What is my number? (8,733)
The two corner numbers need to be added to equal the number in the rectangle. Complete the diagram below:
 
</td>
</tr>
<tr>
<td>table

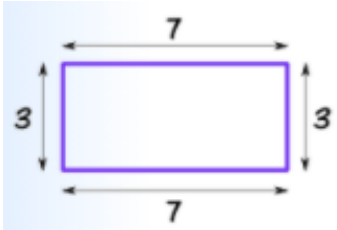
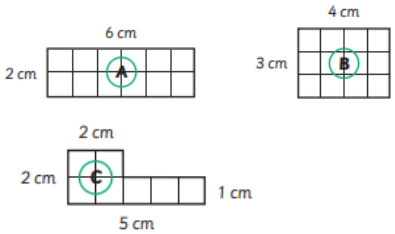
row

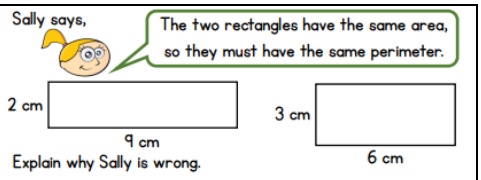
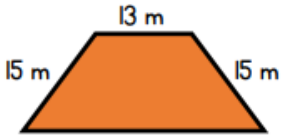
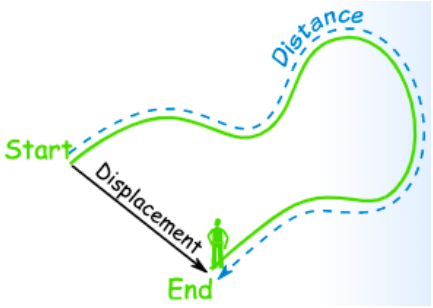
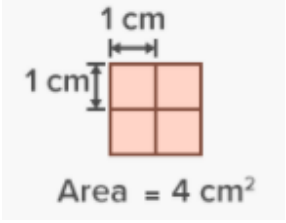
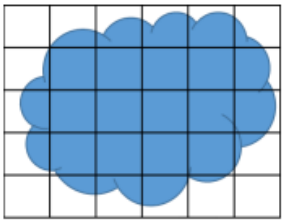
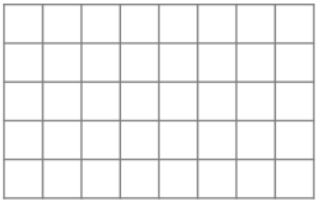
column</td>
<td>A table is used to arrange information in rows and columns.

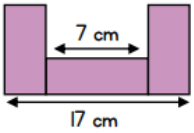
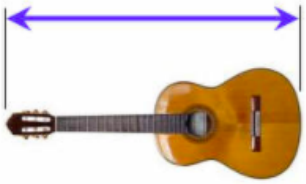
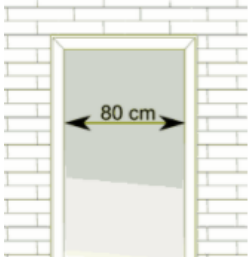
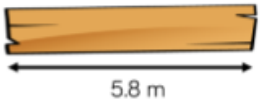
Rows go across the page and columns go up and down.
</td>
<td rowspan="2">
<table>
<tr><th></th><th>Yellow</th><th>Red</th><th>Blue</th><th>TOTAL</th></tr>
<tr><td>Square</td><td>5</td><td>3</td><td></td><td>x</td></tr>
<tr><td>Circle</td><td></td><td>2</td><td>2</td><td>8</td></tr>
<tr><td>Triangle</td><td>y</td><td></td><td></td><td>8</td></tr>
<tr><td>TOTAL</td><td>10</td><td>9</td><td></td><td>30</td></tr>
</table>
Fill in the missing values in this 2 way table.
a) Find the total number of squares.
b) Find the total number of blue triangles.

This table shows the height a rocket reached between 0 and 60 seconds. Create a line graph to represent the information.
<table>
<tr><th>Time (seconds)</th><th>Height (metres)</th></tr>
<tr><td>0</td><td>0</td></tr>
<tr><td>10</td><td>8</td></tr>
<tr><td>20</td><td>15</td></tr>
<tr><td>30</td><td>25</td></tr>
<tr><td>40</td><td>37</td></tr>
<tr><td>50</td><td>50</td></tr>
<tr><td>60</td><td>70</td></tr>
</table>
</td>
</tr>
<tr>
<td>two way table</td>
<td>A two way table is a table that displays more than 1 variable.

<table>
<tr><th></th><th>Like Skateboards</th><th>Do Not Like Skateboards</th><th>Totals</th></tr>
<tr><td>Like Snowmobiles</td><td>80</td><td>25</td><td>105</td></tr>
<tr><td>Do not like Snowmobiles</td><td>45</td><td>10</td><td>55</td></tr>
<tr><td>Totals</td><td>125</td><td>35</td><td>160</td></tr>
</table>
</td>
</tr>
<tr>
<td>prime number</td>
<td>A prime number is a whole number greater than 1 that cannot be made</td>
<td>List all of the prime numbers between 10 and 20. (11, 13, 17, 19)</td>
</tr>
</table>

composite number	by multiplying other whole numbers. A number that is not prime, is a composite number.	Michael says, All prime numbers are odd.' Do you agree? Explain your thinking. Max shades the prime numbers on part of a hundred square. He has missed 2 prime numbers. Shade the prime numbers Max has missed. Sort the numbers correctly to show whether they are prime or composite numbers. 3, 6, 7, 9, 13, 15, 18, 27, 33, 41, 61, 81 Prime / Composite
square number **cube number**	A square number is the number we get after multiplying an integer by itself. Example: 4 x 4 = 16 16 is a square number A cube number is the number we get after multiplying an integer by itself twice. Example: 4 x 4 x 4 = 64 64 is a cube number.	Write one number less than 50 in each box. Multiple of 6 / Not a multiple of 6 Square number / Not a square number Write each number in its correct place on the diagram. 6 15 27 64 start, cube, not cube, even, not even, even, not even
perimeter	The perimeter is the distance around a two dimensional (2D) shape. This can be calculated by adding all the sides of a shape together.  	Which shapes have the same perimeter? (shapes B & C) 

	The perimeter of this shape is 3 + 7 + 3 + 7 = 20.	 Explain why Sally is wrong. The perimeter of the shape is 60 m.  Find the length of the missing side.
distance	The distance is a length or measurement of a specific path. 	Michael walked 6km every day for 2 weeks. What is his total distance travelled? (84km) The distance from the library to the shop is 130km, If Michael has walked half of the distance how far has he walked? (65km)
area	The area is the size of a surface or the amount of space inside the boundary of a 2-dimensional object such as a triangle or a square.  The area of a shape can be measured by comparing the shape to squares of a fixed size. The standard unit of area is the square metre (written as m2), which is the area of a square whose sides are one metre long.	Estimate, in squares, the area of the shape.  Draw a rectangle which has an area of 12 squares and a perimeter of 16 squares. 

		The shape is made up of three identical rectangles.  Work out the area of the shape.
length **width**	Length measures how far it is from one end to another, or from one point to another. The length of an object is the greatest of the two or three dimensions of an object.  The width is the measurement of the distance of a side of an object. Usually this is the shorter side while the length is the longer side.  	Using a ruler, measure the length and width of this rectangle. A square garden has length 30m, what is the total length around the outside of the garden? (120m) A plank of wood is 5.8 metres long.  Two lengths are cut from the wood. 175 cm $3\frac{4}{5}$ m How much of the wood is left?
scale	The scale is the ration of the length in a drawing (or model) to the length on the real thing.	A map of a classroom has a scale of 1:10. If a table on the map measures as 15cm long, how long would it be in real life? (150cm or 1.5m) Enlarge these shapes by: • Scale factor 2 • Scale factor 3 • Scale factor 4