

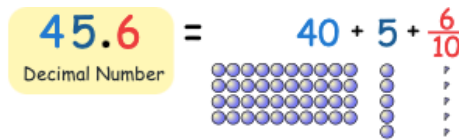
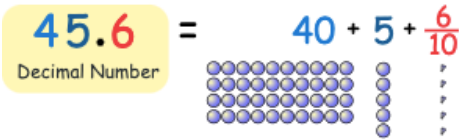
Power Maths Key Vocabulary
Year 5 – Block B

Key Vocabulary	Explanation of Terms	Example Question(s)
multiply	<p>To multiply means to add equal groups. When we multiply, the number of things in the group increases.</p> <p>The basic idea of multiplying is repeated addition:</p> <p>5 multiplied by 3 is the same as 5 + 5 + 5.</p>	<p>Alisha went on a shopping spree and bought 12 pairs of shoes. Each pair cost £15. How much did she spend? ($12 \times 15 = 180$)</p> <p>Michael needs 900 eggs for a wedding. He buys 120 boxes of 6, will this be enough? ($6 \times 120 = 720$ – No)</p> <p>Haiden plays 6 Xbox games. He scores 3.2 points in each game. How many points does he score altogether? ($6 \times 3.2 = 19.2$)</p> <p>Mel buys a new phone, which costs her £623. She also takes out phone insurance which costs 12.99 a month. In one years time how much will she have spent altogether on her phone? ($12.99 \times 12 = 155.88$, $155.88 + 623 = £778.88$)</p>
divide	<p>To divide is to separate or be separated into equal parts.</p> <p>Division is the act or process of dividing anything.</p> <p>$8 \div 2 = 4$</p> <p>8 divided into 2 groups gives a result of 4 per group</p>	<p>There are 900 chocolates, if I share these equally between 30 people, how many will each person get? (30)</p> <p>Clare walked 427km in 7 days, if she walks the same distance every day how far did she walk each day? (61km)</p> <p>Three pens cost the same as five pencils. One pen costs £1.15. How much does one pencil cost? Give your answer in pounds. (£0.69)</p>
decimal	<p>A decimal number can be defined as a number whose whole number part</p>	<p>$32.4 \times ? = 324$ (10) $1.562 \times 1,000 = ?$ (1,562)</p>

decimal place

and the fractional part is separated by a decimal point.

The dot in a decimal number is called a decimal point. The digits following the decimal point show a value smaller than one.



$? \times 100 = 208$ (2.08)
 $4.3 \times ? = 86$ (20)

Colin lived in Scotland and was going to take his caravan on holiday to France. On the first day he travelled 472.87 miles to Portsmouth. He got a ferry which travelled 73.92 miles. He then got off the ferry and drove 134.56 miles to the camp site.

How far did Colin travel to the camp site? (681.35 miles)

He drove a scenic way home which added another 93.45 miles to his journey. How far did he now travel? (774.8 miles)

add

To add is 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

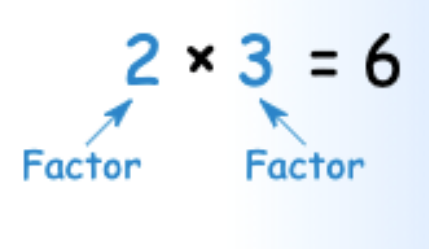
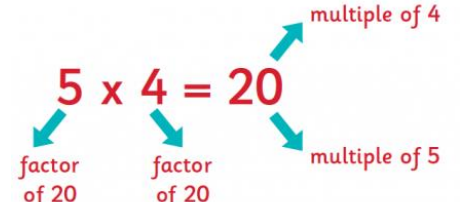

To subtract is to take one number away from another.


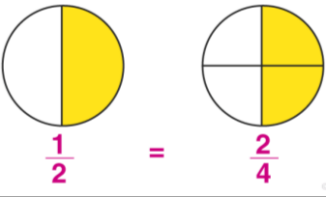


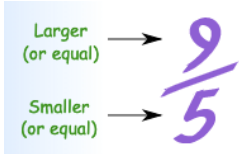

If we have 1,000 sweets in a jar and we eat 883 sweets, how many sweets do we have left?
 (1,000 – 883 = 117)

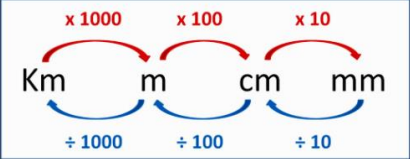
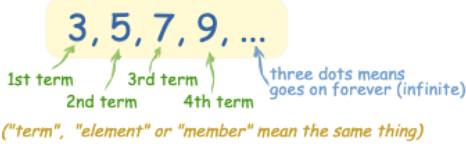
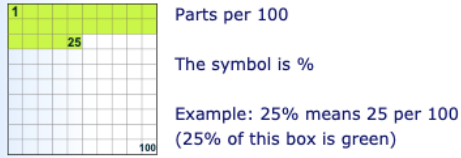

Potatoes are sold in bags weighing 2.7kg. Sam uses 1.15kg of potatoes

		<p>for the Sunday dinner. What is the weight of the remaining potatoes? ($2.7 - 1.15 = 1.55\text{kg}$)</p> <p>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)</p>												
<p>place value</p>	<p>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.</p> 	<p>In the number 17.5, what is the value of the 7? (7 ones)</p> <p>Write the numbers below in words: 324,876 222,801 103,076 832,001 986,230</p> <p>Compare the numbers below using < or >.</p> <table border="1"> <thead> <tr> <th></th> <th>< or ></th> <th></th> </tr> </thead> <tbody> <tr> <td>12,451</td> <td></td> <td>12,541</td> </tr> <tr> <td>45,007</td> <td></td> <td>43,091</td> </tr> <tr> <td>123,432</td> <td></td> <td>121,445</td> </tr> </tbody> </table>		< or >		12,451		12,541	45,007		43,091	123,432		121,445
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<p>partition</p>	<p>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.</p> <p>When asked to calculate $567 + 199$:</p> <div style="border: 1px solid orange; padding: 5px; margin: 10px 0;"> <p>Partitioning method</p> <p>$500 + 100 = 600$</p> <p>$60 + 90 = 150$</p> <p>$7 + 9 = 16$</p> <p>$600 + 150 + 16 = 766$</p> </div>	<p>How can the number 1,227 be partitioned? (1,000, 200, 20 & 7)</p> <p>How can the number 30,392 be partitioned? (30,000, 300, 90, 2)</p> <p>Partition the numbers below: 345,986 860,201 352,844 492,110 800,003</p>												

<p>factor</p>	<p>Factors are numbers we can multiply together to get another number.</p>  <p>$2 \times 3 = 6$, therefore 2 and 3 are factors of 6.</p>	<p>What are all the factors of 12? ($1 \times 12 = 12$, $2 \times 6 = 12$, $3 \times 4 = 12$) Therefore, the factors of 12 are: 1, 12, 2, 6, 3 & 4.)</p> <p>Which numbers less than 100 have exactly three factors? (4, 9 and 25)</p> <p>What number up to 100 has the most factors? (60, 72, 84, 90 and 96. They each have a total of 12 factors)</p>
<p>multiple</p>	<p>A multiple is the product result of one number multiplied by another number.</p>  <p>Every number has an infinite number of multiples.</p>	<p>List the multiples of 8 between 0 and 50. (8, 16, 24, 32, 40, 48)</p> <p>How do you know a number is a multiple of 5? (the last digit is either 5 or 0)</p> <p>How do you know a number is a multiple of 9? (the digital root is 9)</p>
<p>remainder</p>	<p>A remainder is the amount left over after performing a division calculation.</p> <p>This happens when the number does not divide exactly by the other.</p> <p>$19 \div 5 = 3 \text{ R } 4$</p> 	<p>Find the remainder when sixty-nine is divided by five? (4)</p> <p>Dara bought 32 cakes for his birthday. He carefully put five cakes on each of six plates. How many cakes were left over? (2)</p> <p>In an office, there are 8 desks. A pack of 35 sets of sticky notes need sharing equally among the desks. How many sets of sticky notes are on each desk? (4 r 3)</p> <p>There are seventeen boys and fourteen girls in a class. The children sit at tables of 4. How many tables are needed? (8)</p>
<p>sum</p>	<p>The sum is the result of adding two or more numbers together.</p> <p>$21 + 52 = 73$</p> <p>sum</p>	<p>What is the sum of 4340 and 481? (4,340 + 2,481 = 6,821)</p> <p>Find the sum:</p>

		$\begin{array}{r} 56833 \\ + 44105 \\ \hline \end{array}$ <p style="text-align: right;">(100,938)</p> $\begin{array}{r} 84658 \\ + 85858 \\ \hline \end{array}$ <p style="text-align: right;">(170,516)</p> <p>What is the sum of 176, 87 and 39? (302)</p>
<p>fraction</p> <p>numerator</p> <p>denominator</p>	<p>A fraction is a part of a whole number, and a way to split up a number into equal parts.</p> <div style="text-align: center;">  </div> <p>The numerator is the top number of a fraction.</p> <p>The denominator is the bottom number of a fraction.</p>	<p>Noah made two types of biscuits. He used $\frac{3}{8}$ cup of sugar for one recipe and $\frac{1}{8}$ cup of sugar for the other. How much sugar (in cups) did he use in all? ($\frac{4}{8}$)</p> <p>Harry and Dele shared a chocolate bar. Harry ate $\frac{2}{5}$ and Dele ate $\frac{3}{10}$. Who ate more? What fraction more? (Harry $\frac{1}{10}$)</p> <p>A jug contains $2\frac{3}{4}$ litres of orange juice. After you pour $1\frac{7}{8}$ litres into some glasses, how much is left in the jug? ($\frac{7}{8}$)</p>
<p>equivalent</p>	<p>Equivalent signifies that 2 things are equal.</p> <div style="text-align: center;">  </div> <p>You can make equivalent fractions by multiplying or dividing both top and bottom by the same amount. You only multiply or divide, never add or subtract, to get an equivalent fraction.</p> <p>Only divide when the top and bottom stay as whole numbers.</p>	$\frac{1}{5} = \frac{\square}{10} \quad (2)$ $\frac{3}{20} = \frac{\square}{40} \quad (6)$ $\frac{\square}{3} = \frac{8}{24} \quad (1)$ <p>Write 3 equivalent fractions to each of these fractions:</p> $\frac{1}{3}$ <p style="text-align: right;">(2/3, 4/6, 8/12)</p>

		$\frac{11}{12}$ <p>(22/24, 44/48, 88/96)</p>
simplify	<p>To simplify (or reduce) a fraction means to make it as simple as possible.</p> $\frac{8}{12} \div 4 = \frac{2}{3}$ <p>We can do this by dividing the denominator and numerator by the same number.</p>	<p>Simplify 2/10. (1/5)</p> <p>Write the fraction 4/10 in its simplest form. (2/5)</p> <p>Lizzy owns 3 white hens, 4 brown hens and 5 black hens. What fraction of her hens are not white? Write your answer in its simplest form. (3/4)</p>
improper fraction	<p>An improper fraction is a fraction where the numerator (the top number) is greater than or equal to the denominator (the bottom number).</p>  <p>We refer to it as being 'top-heavy'.</p>	<p>Write as an improper fraction:</p> $2\frac{1}{2}$ <p>(5/2)</p> $3\frac{1}{4}$ <p>(13/4)</p> $4\frac{1}{5}$ <p>(21/5)</p>
mixed number	<p>A whole number and a fraction combined into one is called a mixed number.</p> 	<p>Write as a mixed number:</p> $\frac{12}{5}$ <p>(2 2/5)</p> $\frac{10}{3}$ <p>(3 1/3)</p> $\frac{19}{5}$ <p>(3 4/5)</p>
convert	<p>To convert is to change a value or expression from one form to another.</p>	<p>Convert 2/5 into twentieths. (2/5 = 8/20)</p> <p>Convert 80cm into metres? (0.8m)</p>

		<p>152cm = ____ m (1.52m)</p> <p>1.5kg = _____ g (1500g)</p>
<p>sequence</p>	<p>A sequence is a list of numbers or objects in a special order.</p> <p><i>Sequence:</i></p>  <p>(<i>"term", "element" or "member" mean the same thing</i>)</p>	<p>Insert the next 2 numbers in the following sequence:</p> <p>5, 10, 20, 40, 80, _____, _____ (160, 320)</p> <p>Can you find the next number:</p> <p>1, 5, 9, 13, _____ (17)</p> <p>1, 1½, 2, 2½, _____ (3)</p> <p>0.1, 0.6, 1.1, 1.6, _____ (2.1)</p>
<p>percent (%)</p> <p>percentage</p>	<p>Percentage is a number or ratio which can be represented as a fraction of 100.</p>  <p>The symbol (%) is used to denote percentage</p>	<p>What is 5 out of 10 as a percentage? (50%)</p> <p>Michael gets 16 out of 20 in a test, what percentage did he get correct? (80%)</p> <p>James gets 50% in a test that is out of 50, what score did he get? (25)</p>
<p>order</p>	<p>The arrangement of things in relation to each other according to a particular sequence or pattern.</p>  <p>Above, the shapes are in order of how many sides they have.</p>	<p>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)</p> <p>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)</p>