
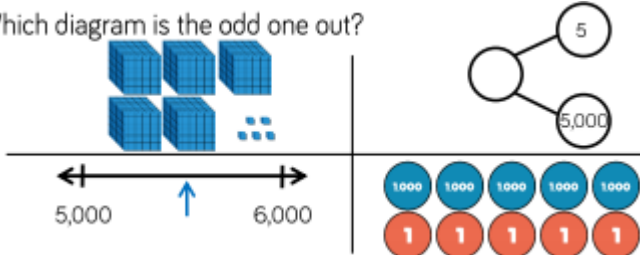


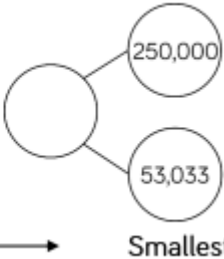













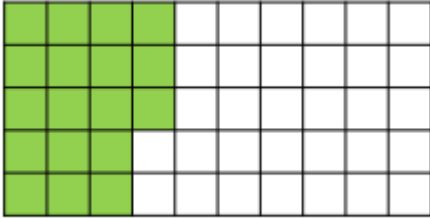
West Berkshire 'Maths Talk' Counts Summer Challenge: Year 6





<p>1 August 2020</p>	<p>Match the diagram to the number.</p>  <p>4,005      4,500      4,050</p>
<p>2 August 2020</p>	<p>Which diagram is the odd one out?</p>  <p>5,000      6,000</p>
<p>3 August 2020</p>	<p>Put a digit in the missing spaces to make the statement correct.</p> <p>4,62 __ ,645 &lt; 4,623,64 __</p> <p>Is there more than one option? Can you find them all?</p>
<p>4 August 2020</p>	<p>Tommy says he can order the following numbers by only looking at the first three digits.</p> <p>12,516      12,832</p> <p>12,679</p> <p>12,538      12,794</p> <p>Is he correct?</p> <p>Explain your answer.</p>

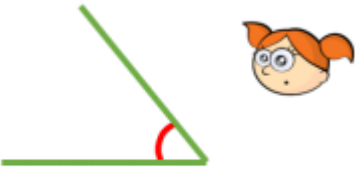
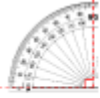
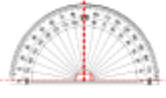

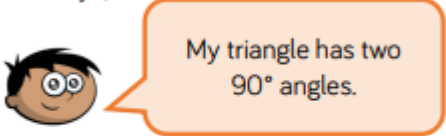
5 August 2020	<p>Dora has made five numbers, using the digits 1, 2, 3 and 4</p> <p>She has changed each number into a letter.</p> <p>Her numbers are</p> <p>aabcd acdbc dcaba cdadc bdaab</p> <p>Here are three clues to work out her numbers:</p> <ul style="list-style-type: none"> <li>• The first number in her list is the greatest number.</li> <li>• The digits in the fourth number total 12</li> <li>• The third number in the list is the smallest number.</li> </ul>
6 August 2020	<p>Describe the value of the digit 7 in each of the following numbers. How do you know?</p> <p style="text-align: center;">407,338</p> <p style="text-align: center;">700,491</p> <p style="text-align: center;">25,571</p>
7 August 2020	<p>Use the digit cards and statements to work out my number.</p> <p style="text-align: center;">  </p> <ul style="list-style-type: none"> <li>• The ten thousands and hundreds have the same digit.</li> <li>• The hundred thousand digit is double the tens digit.</li> <li>• It is a six-digit number.</li> <li>• It is less than six hundred and fifty-five thousand.</li> </ul>

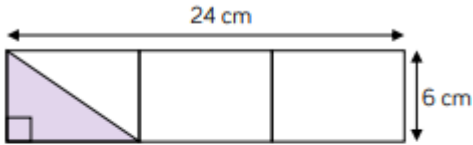
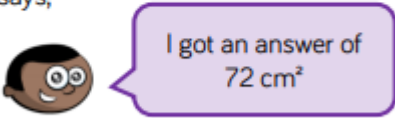

8 August 2020	<p>What number could the splat be covering?</p> <p>Three hundred and thirteen thousand and thirty-three</p>   <p>Greatest → Smallest</p>
9 August 2020	<p>2,567 to the nearest 100 is 2,500</p>  <p>Whitney</p> <p>Do you agree with Whitney? Explain why.</p>
10 August 2020	<p>A company decided to build offices over ground and underground.</p> <p>If we build from -20 to 20, we will have 40 floors.</p>  <p>Do you agree? Explain why.</p>
11 August 2020	<p>Three children have incorrectly converted <math>3\frac{2}{5}</math> into an improper fraction.</p> <p>Annie: <math>3\frac{2}{5} = \frac{6}{15}</math></p> <p>Mo: <math>3\frac{2}{5} = \frac{15}{5}</math></p> <p>Dexter: <math>3\frac{2}{5} = \frac{32}{5}</math></p> <p>What mistake has each child made?</p>

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12 August 2020	<p>Rosie is counting backwards in fifths. She starts at <math>3\frac{2}{5}</math> and counts back nine fifths. What number does Rosie end on? Show this on a number line.</p>

13 August 2020	<p>Teddy is comparing <math>\frac{3}{8}</math> and <math>\frac{5}{12}</math></p>  <div style="border: 1px solid blue; border-radius: 15px; padding: 10px; width: fit-content; margin: 10px auto;"> <p>To find the lowest common multiple, I will multiply 8 and 12 together.  <math>8 \times 12 = 96</math>  I will use a common denominator of 96</p> </div> <p>Is Teddy correct?  Explain why.</p>
14 August 2020	<p>Alex is adding fractions.</p> $\frac{3}{5} + \frac{1}{15} = \frac{4}{20} = \frac{1}{5}$ <p>Do you agree with her?  Explain your answer.</p>
15 August 2020	<p>Fill in the missing numbers.</p> $4 \frac{5}{6} + \begin{array}{ c c } \hline \square & \square \\ \hline \square & \square \\ \hline \end{array} = 10 \frac{1}{3}$
16 August 2020	 <p>Amir thinks that 18% of the grid has been shaded.</p> <p>Dora thinks that 36% of the grid has been shaded.</p> <p>Who do you agree with?</p> <p>Explain your reasoning.</p>
17 August 2020	<p>Eva says to find 1% of a number, you divide by 100  Whitney says to find 1% of a number, you divide by 10 and then by 10 again.</p> <p>Who do you agree with?  Explain your answer.</p>

<p>18 August 2020</p>	<p>Teddy thinks his chew bar is 13.2 cm long.</p> <p>Do you agree? Explain why.</p> 																		
<p>19 August 2020</p>	<p>Put these capacities in order, starting with the smallest.</p> <div style="display: flex; flex-wrap: wrap; gap: 10px;"> <div style="border: 1px solid orange; border-radius: 10px; padding: 5px; width: 150px; text-align: center;">3 litres</div> <div style="border: 1px solid green; border-radius: 10px; padding: 5px; width: 150px; text-align: center;">3,500 ml</div> <div style="border: 1px solid purple; border-radius: 10px; padding: 5px; width: 150px; text-align: center;">0.4 litres</div> <div style="border: 1px solid blue; border-radius: 10px; padding: 5px; width: 150px; text-align: center;">0.035 litres</div> <div style="border: 1px solid red; border-radius: 10px; padding: 5px; width: 150px; text-align: center;">450 ml</div> <div style="border: 1px solid yellow; border-radius: 10px; padding: 5px; width: 150px; text-align: center;">330 ml</div> </div>																		
<p>20 August 2020</p>	<p>Work out the missing numbers.</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td></td> <td style="background-color: #d9e1f2;">?</td> <td>4</td> <td style="background-color: #d9e1f2;">?</td> <td>3</td> <td style="background-color: #d9e1f2;">?</td> </tr> <tr> <td style="text-align: right;">+</td> <td>2</td> <td style="background-color: #d9e1f2;">?</td> <td>5</td> <td style="background-color: #d9e1f2;">?</td> <td>2</td> </tr> <tr> <td></td> <td>7</td> <td>8</td> <td>5</td> <td>2</td> <td>9</td> </tr> </table>		?	4	?	3	?	+	2	?	5	?	2		7	8	5	2	9
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<p>21 August 2020</p>	<p>576 children and 32 adults need transport for a school trip. A coach holds 55 people.</p> <div style="margin-bottom: 20px;">  <div style="border: 1px solid orange; border-radius: 15px; padding: 5px; display: inline-block;">We need 10 coaches.</div> <p>Dora</p> </div> <div style="margin-bottom: 20px;">  <div style="border: 1px solid blue; border-radius: 15px; padding: 5px; display: inline-block;">We need 11 coaches.</div> <p>Eva</p> </div> <div style="margin-bottom: 20px;">  <div style="border: 1px solid purple; border-radius: 15px; padding: 5px; display: inline-block;">We need 12 coaches.</div> <p>Alex</p> </div> <p>Who is correct? Explain how you know.</p> <p>How many spare seats will there be?</p>																		

22 August 2020	<p>Alex measures this angle:</p>  <p>She says it is <math>130^\circ</math></p> <p>Explain what she has done wrong.</p>
23 August 2020	 <p>There are <input type="text"/> degrees in a right angle.</p>  <p>There are <input type="text"/> right angles on a straight line.</p>  <p>There are <input type="text"/> degrees on a straight line.</p>
24 August 2020	<p>There are five equal angles around a point.</p> <p>What is the size of each angle?</p> <p>Explain how you know.</p>
25 August 2020	<p>Amir says,</p>  <p>Can Amir be correct? Can you demonstrate this?</p>
26 August 2020	<p><b>True or False?</b></p> <div style="border: 1px solid green; border-radius: 15px; padding: 10px; width: fit-content; margin: 10px auto;"> <p>A triangle can never have 3 acute angles.</p> </div>
27 August 2020	<p>If <math>\star = 7</math> and <math>\heartsuit = 5</math>, what is the value of:</p> $\star + \heartsuit + \heartsuit$ <p>If <math>a = 7</math> and <math>b = 5</math> what is the value of:</p> $a + b + b$ <p>What is the same and what is different about this question?</p>

28 August 2020	<ul style="list-style-type: none"> <li>Hannah is 8 years old</li> <li>Jack is 13 years old</li> <li>Grandma is <math>x + 12</math> years old.</li> <li>The sum of their ages is 100</li> </ul> <p>Form and solve an equation to work out how old Grandma is.</p>
29 August 2020	<p><b>True or false?</b></p> <p>Two rectangles with the same perimeter can have different areas.</p> <p>Explain your answer.</p>
30 August 2020	<p>Calculate the area of the shaded triangle.</p>  <p>Mo says,</p>  <p>Do you agree with Mo? If not, can you spot his mistake?</p>
31 August 2020	<p><b>True or False?</b></p>  <ul style="list-style-type: none"> <li>For every red cube there are 8 blue cubes.</li> <li>For every 4 blue cubes there is 1 red cube.</li> <li>For every 3 red cubes there would be 12 blue cubes.</li> <li>For every 16 cubes, 4 would be red and 12 would be blue.</li> <li>For every 20 cubes, 4 would be red and 16 would be blue.</li> </ul>



