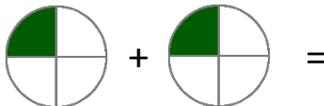
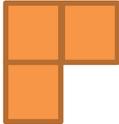
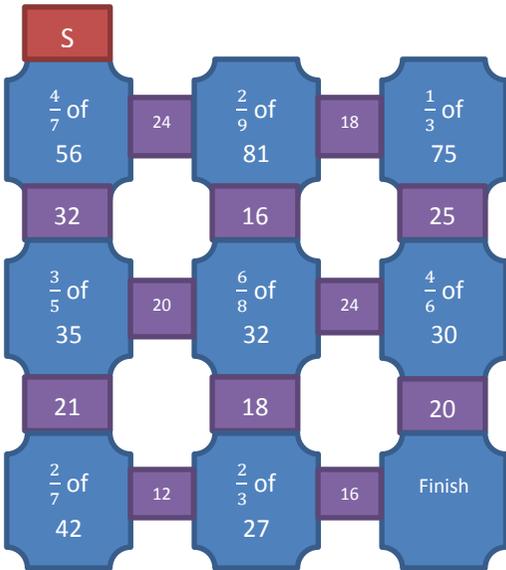
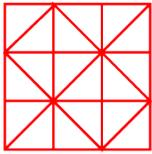


	National Curriculum Statement	All students		
		Fluency	Reasoning	Problem Solving
Fractions	Add and subtract fractions with the same denominator.	<ul style="list-style-type: none"> Calculate:  $\frac{1}{4} + \frac{1}{4} =$ <p>Use diagrams and bar modelling to solve the problems below.</p> $\frac{3}{8} + \frac{2}{8} = \quad \frac{1}{6} + \frac{2}{6} =$ $\frac{7}{8} - \frac{2}{8} = \quad \frac{5}{7} - \frac{2}{7} =$ <ul style="list-style-type: none"> Sarah eats $\frac{3}{8}$ of a bunch of grapes; Tom eats $\frac{2}{8}$ of a bunch of grapes. What fraction of the grapes have they eaten altogether? Fill in the box: $\frac{5}{8} + \square = \frac{7}{8}$ $\frac{5}{6} - \square = \frac{1}{6}$	<ul style="list-style-type: none"> The answer is $\frac{4}{9}$; what is the question? True or False $\frac{5}{12} + \frac{3}{12} = \frac{8}{12}$ $\frac{5}{12} + \frac{3}{12} = \frac{8}{24}$ $\frac{5}{12} + \frac{3}{12} = \frac{4}{6}$ <p>Explain your reasoning.</p> <ul style="list-style-type: none"> Describe the pattern: $\frac{7}{10} - \frac{1}{10} = \frac{6}{10}$ $\frac{6}{10} - \frac{1}{10} = \frac{5}{10}$ <p>Can you continue the pattern?</p>	<ul style="list-style-type: none"> Caroline chooses two fractions and subtracts the smaller one from the bigger one. Her answer was $\frac{1}{6}$. What fractions could Caroline have chosen? How many ways can you find to do it? Find three ways to complete each calculation. $\frac{\square}{\square} + \frac{\square}{\square} = \frac{8}{9}$ $\frac{\square}{\square} - \frac{\square}{\square} = \frac{8}{9}$ <ul style="list-style-type: none"> Dan has 2 pieces of rope. One is $\frac{2}{8}$ of the whole rope and one is $\frac{2}{4}$. Dan adds $\frac{4}{8}$ to the first rope and $\frac{1}{4}$ to the second rope. Which rope is longer? Do you notice anything about the lengths of the ropes? $\frac{2}{8}$  $\frac{2}{4}$ 

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Fractions	Solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number.	<ul style="list-style-type: none"> Find: $\frac{2}{5}$ of 45 $\frac{3}{8}$ of 24 Emily buys a box of 24 chocolates. She eats $\frac{1}{4}$ of the chocolates and her Mum eats $\frac{1}{3}$. How many chocolates are left? George and Grace have ordered lemonade. Grace has a small lemonade which is 250ml. George has a large lemonade which is $\frac{4}{10}$ more than a small. How many ml does George have? If George only drinks half of his lemonade and Grace drinks three quarters of her lemonade, who drinks the most? Show your working. 	<ul style="list-style-type: none"> The school kitchen needs to buy potatoes for lunch. A large bag has 200 potatoes and a medium bag has $\frac{3}{5}$ of a large bag. The school cook says, "I need 150 potatoes so I will have to buy a large bag." Is she correct? Explain your reasoning. True or False To find $\frac{3}{8}$ of a number, divide by 3 and multiply by 8. Convince me. The two squares below are $\frac{2}{6}$ of a rectangle. Can you draw the rest of the rectangle? Can you do it more than one way? 	<ul style="list-style-type: none"> These three squares are $\frac{1}{4}$ of a whole shape.  How many different shapes can you draw that could be the complete shape? Jenny has 42 stickers. She gives $\frac{3}{7}$ of her stickers to Paul and $\frac{2}{6}$ of her stickers to Beth. How many stickers do they each have? Work out the answer to each question to make it through the maze. 

	National Curriculum Statement	All students		
		Fluency	Reasoning	Problem Solving
Fractions	Recognise and show, using diagrams, families of common equivalent fractions.	<ul style="list-style-type: none"> Complete the statements: <div style="display: flex; align-items: center; margin: 5px;">  <div style="margin-left: 20px;">$\frac{\quad}{8} = \frac{1}{4}$</div> </div> <div style="display: flex; align-items: center; margin: 5px;">  <div style="margin-left: 20px;">$\frac{2}{\quad} = \frac{1}{5}$</div> </div> <div style="display: flex; align-items: center; margin: 5px;">  <div style="margin-left: 20px;">$\frac{4}{3} = \frac{\quad}{4}$</div> </div> $\frac{1}{2}$ is equivalent to 2 quarters. Write and draw three more fractions that are equivalent to a half. Draw diagrams to show fractions that are equivalent to $\frac{4}{8}$ 	<ul style="list-style-type: none"> A pizza is cut into 8 slices. Zara says, "If I take half of the pizza, and my brother takes 4 slices, we will both have the same amount." Is she correct? Convince me by using a diagram. Look at the three pictures. What's the same and what's different? <div style="display: flex; justify-content: space-around; align-items: center; margin: 10px;">   </div> <div style="display: flex; justify-content: center; margin: 10px;">  </div> Two paper strips are ripped. Which paper strip was originally the longest? Explain your answer. <div style="display: flex; justify-content: space-around; margin: 10px;"> <div style="border: 1px solid black; background-color: orange; padding: 5px; text-align: center;">$\frac{1}{5}$</div> <div style="border: 1px solid black; background-color: blue; padding: 5px; text-align: center;">$\frac{1}{5}$</div> </div> 	<ul style="list-style-type: none"> Harry says, "$\frac{3}{4}$ is always the same as $\frac{6}{8}$" Jenny says, "$\frac{3}{4}$ is equivalent to $\frac{6}{8}$ but isn't always the same amount." <p>Use diagrams to show and prove your answer.</p> Use the digit cards to fill in the boxes below. <div style="display: flex; justify-content: center; margin: 10px;"> <div style="border: 1px solid black; background-color: purple; padding: 5px; margin: 2px;">1</div> <div style="border: 1px solid black; background-color: purple; padding: 5px; margin: 2px;">1</div> <div style="border: 1px solid black; background-color: orange; padding: 5px; margin: 2px;">2</div> <div style="border: 1px solid black; background-color: blue; padding: 5px; margin: 2px;">3</div> </div> <div style="display: flex; justify-content: center; margin: 10px;"> <div style="border: 1px solid black; background-color: green; padding: 5px; margin: 2px;">5</div> <div style="border: 1px solid black; background-color: green; padding: 5px; margin: 2px;">5</div> <div style="border: 1px solid black; background-color: red; padding: 5px; margin: 2px;">6</div> </div> <div style="display: flex; justify-content: center; margin: 10px;"> <div style="border: 1px solid black; width: 30px; height: 30px; margin: 2px;"></div> <div style="border: 1px solid black; width: 30px; height: 30px; margin: 2px;"></div> <div style="border: 1px solid black; width: 30px; height: 30px; margin: 2px;"></div> </div> <div style="display: flex; justify-content: center; margin: 10px;"> <div style="border: 1px solid black; width: 30px; height: 30px; margin: 2px;"></div> <div style="border: 1px solid black; width: 30px; height: 30px; margin: 2px;"></div> </div> Print the square below several times on a sheet. Children investigate the different ways they can show $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{3}$, $\frac{1}{6}$ <div style="text-align: center; margin: 10px;">  </div>