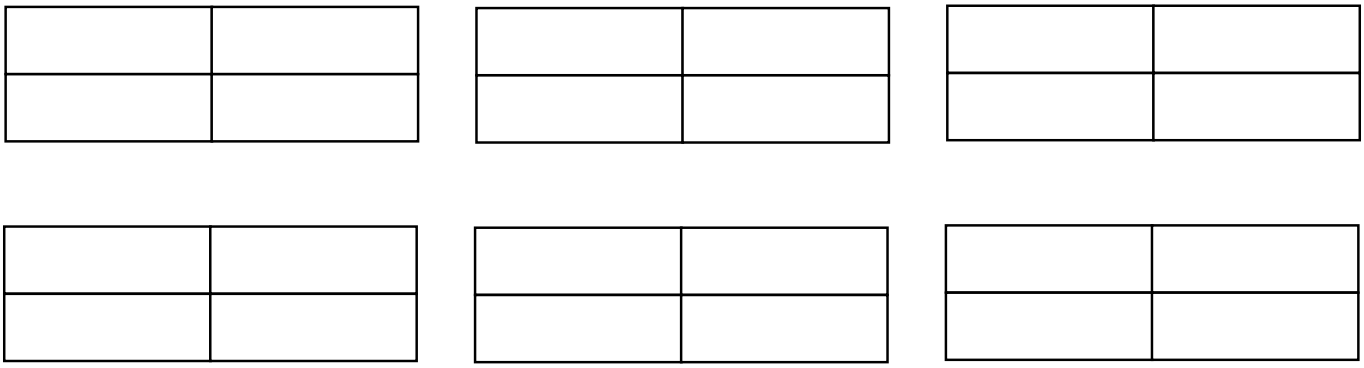
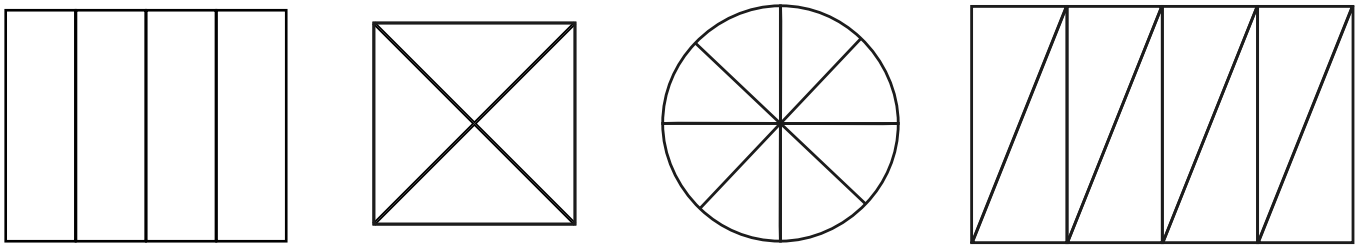
Shading Shapes

I can shade $\frac{1}{2}$, $\frac{1}{4}$ or $\frac{2}{4}$ of a shape.

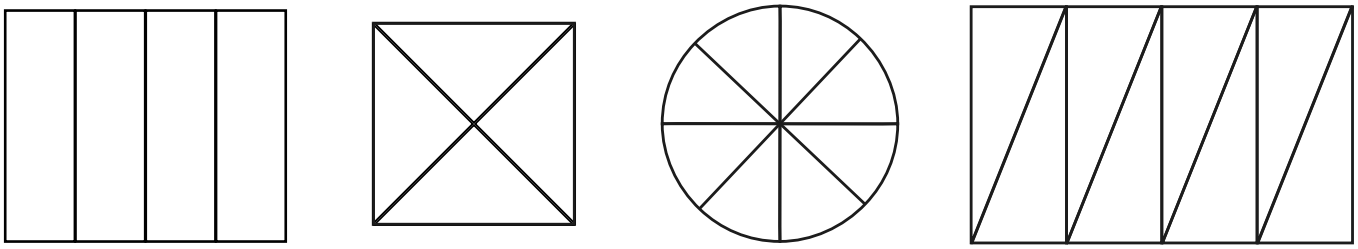
1. Can you find 6 different ways to shade $\frac{1}{2}$ of these shapes?



2. Shade $\frac{1}{4}$ of these shapes.

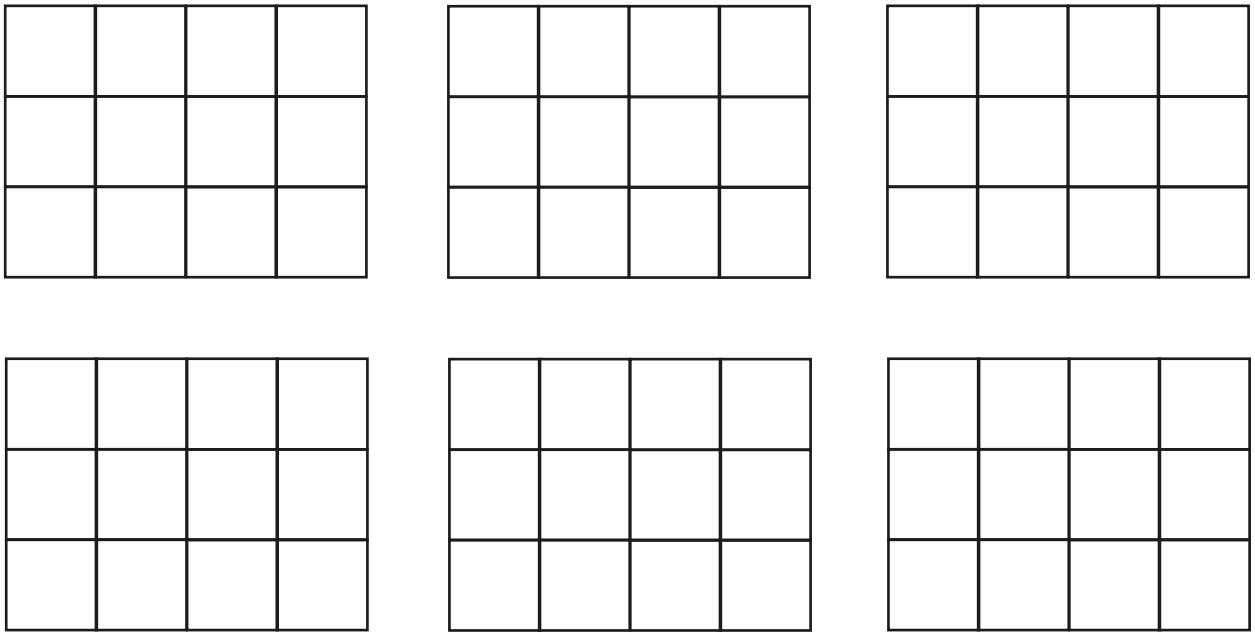


3. Now shade $\frac{1}{4}$ in a different way.



Shading Shapes

4. Find different ways to colour $\frac{2}{4}$ of this shape.

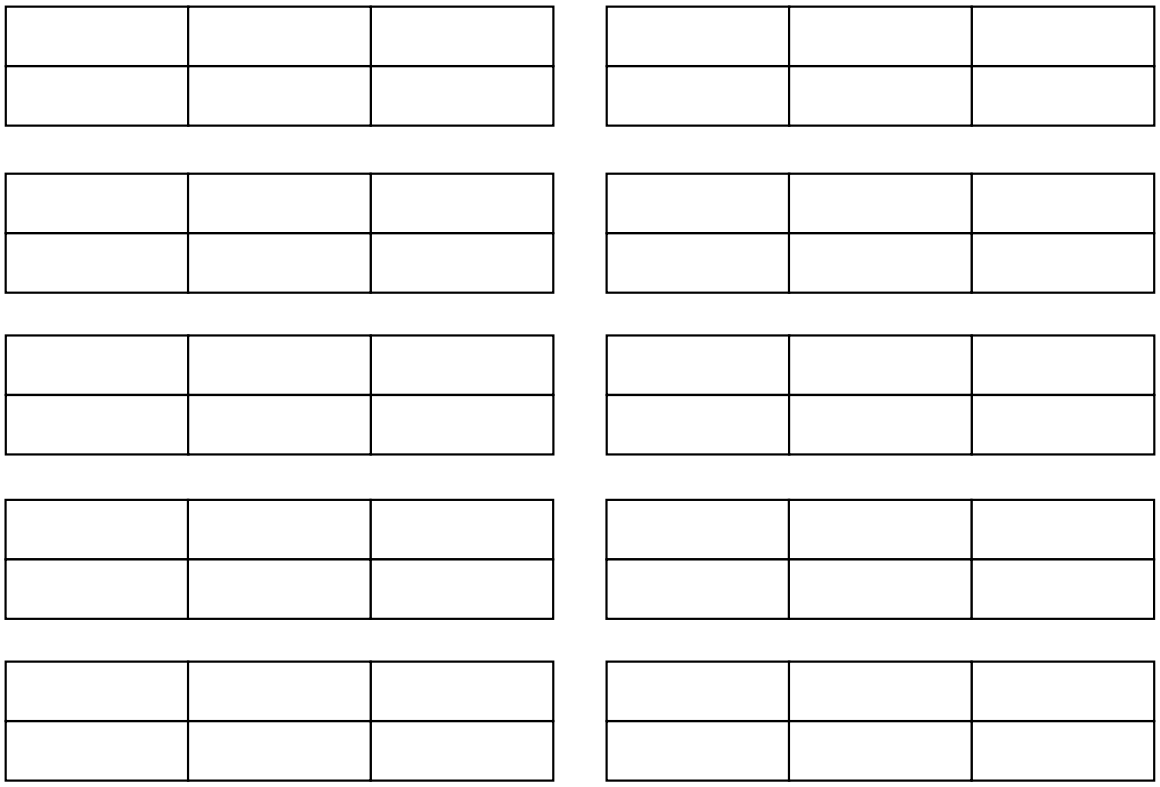


5. How did you know how many squares to colour?

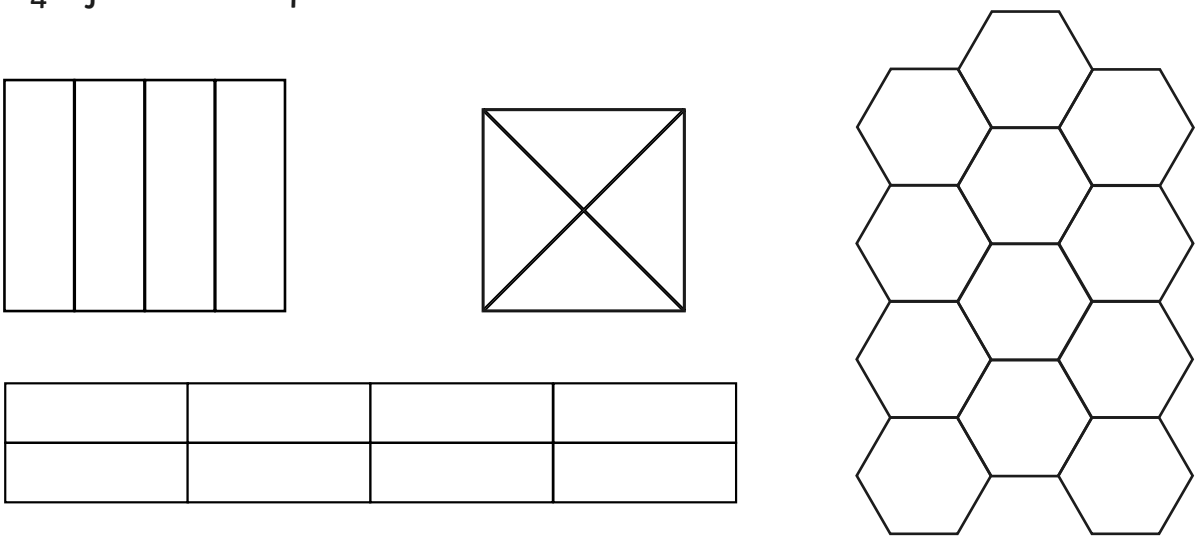
Shading Shapes

I can shade $\frac{1}{2}$, $\frac{1}{4}$ or $\frac{2}{4}$ of a shape.

1. Can you find 10 different ways to shade $\frac{1}{2}$ of these shapes?

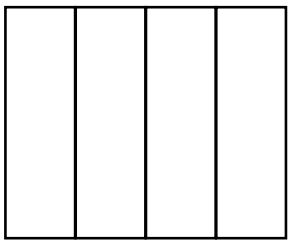


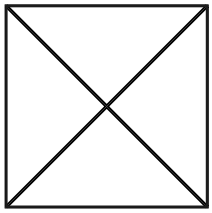
2. Shade $\frac{1}{4}$ of these shapes.

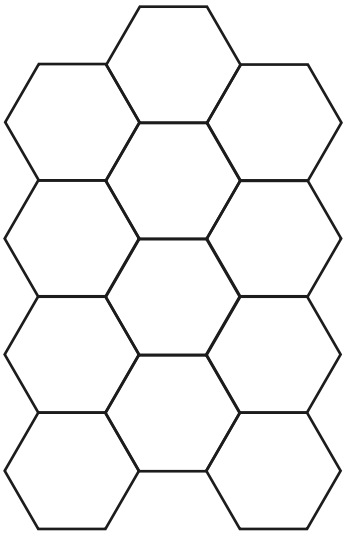


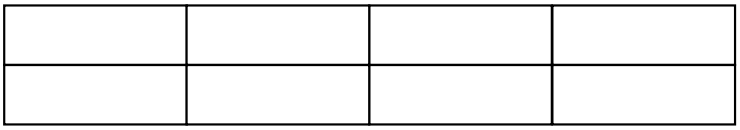
Shading Shapes

3. Shade $\frac{2}{4}$ of these shapes.

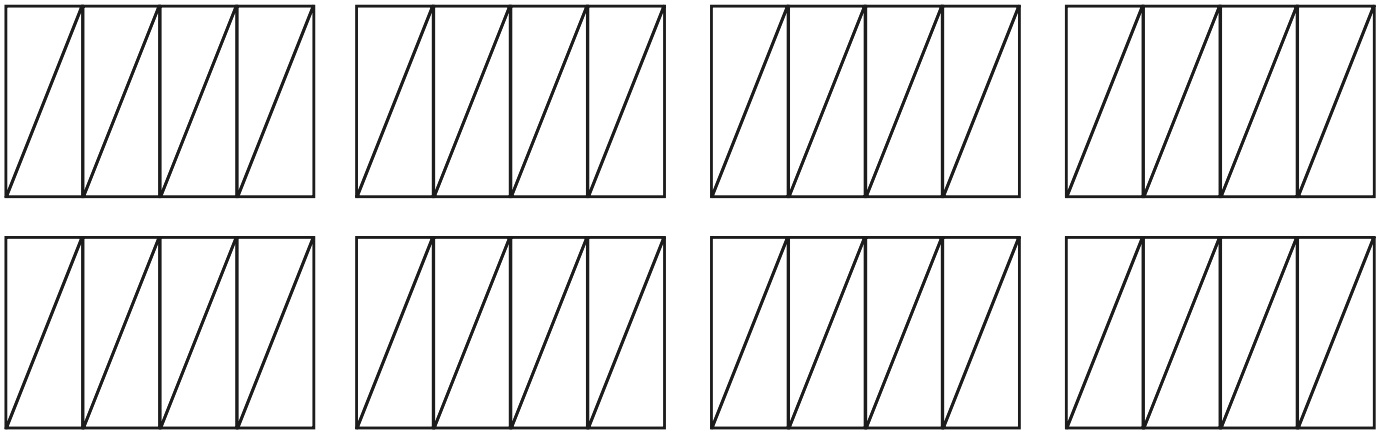








4. Find 8 different ways to colour $\frac{1}{4}$ of this shape.



5. How would you explain $\frac{1}{2}$ to someone?

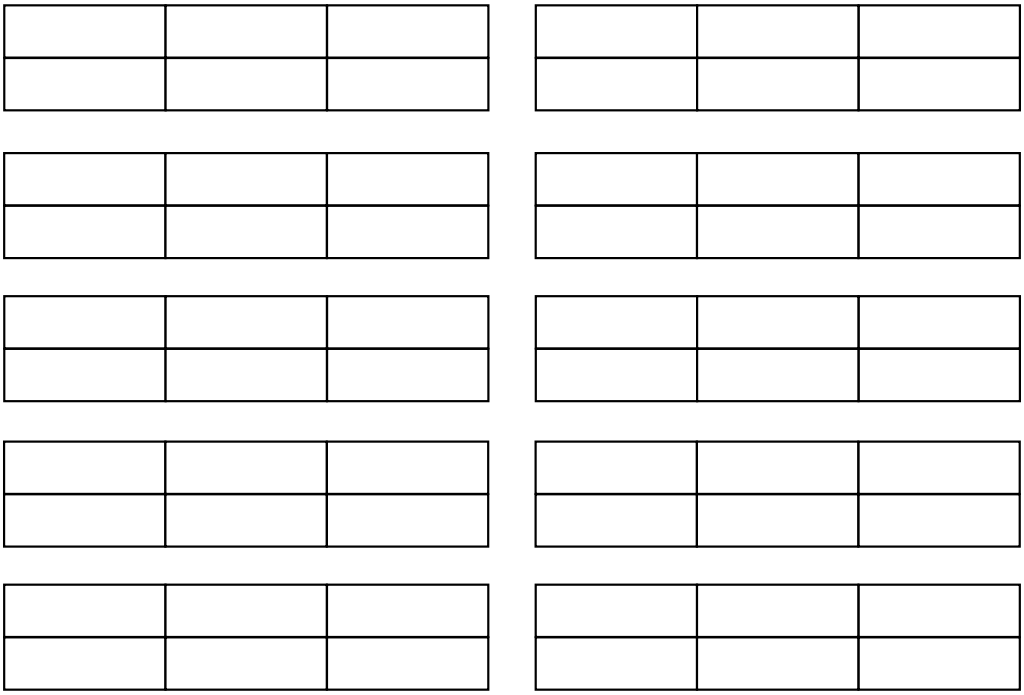
How would you explain $\frac{1}{4}$ to someone?

How would you explain $\frac{2}{4}$ to someone?

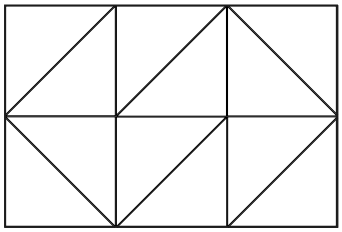
Shading Shapes

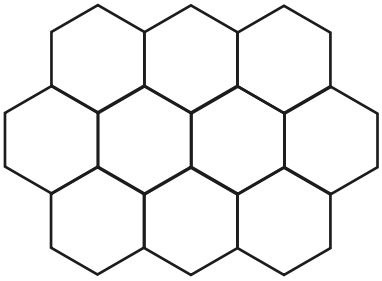
I can shade $\frac{1}{2}$, $\frac{1}{4}$ or $\frac{2}{4}$ of a shape.

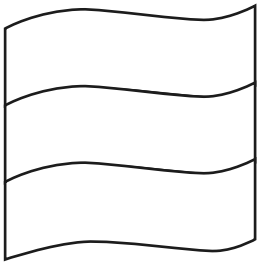
1. Can you find 10 different ways to shade $\frac{1}{2}$ of these shapes?

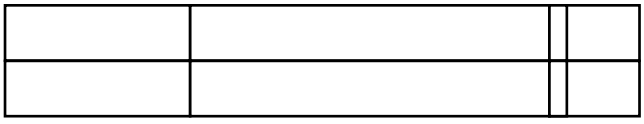


2. Colour $\frac{1}{4}$ of these shapes. Put a cross against any that you can't colour $\frac{1}{4}$ of and explain the reason why.



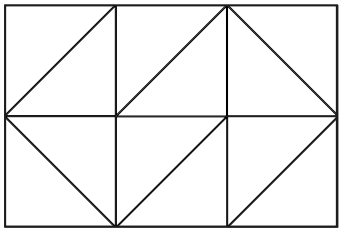


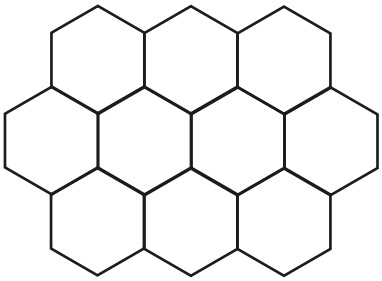


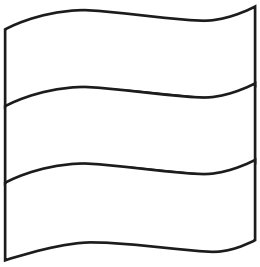


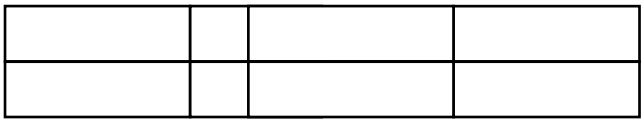
Shading Shapes

3. Colour $\frac{2}{4}$ of these shapes. Put a cross against any that you can't colour $\frac{2}{4}$ of and explain the reason why.

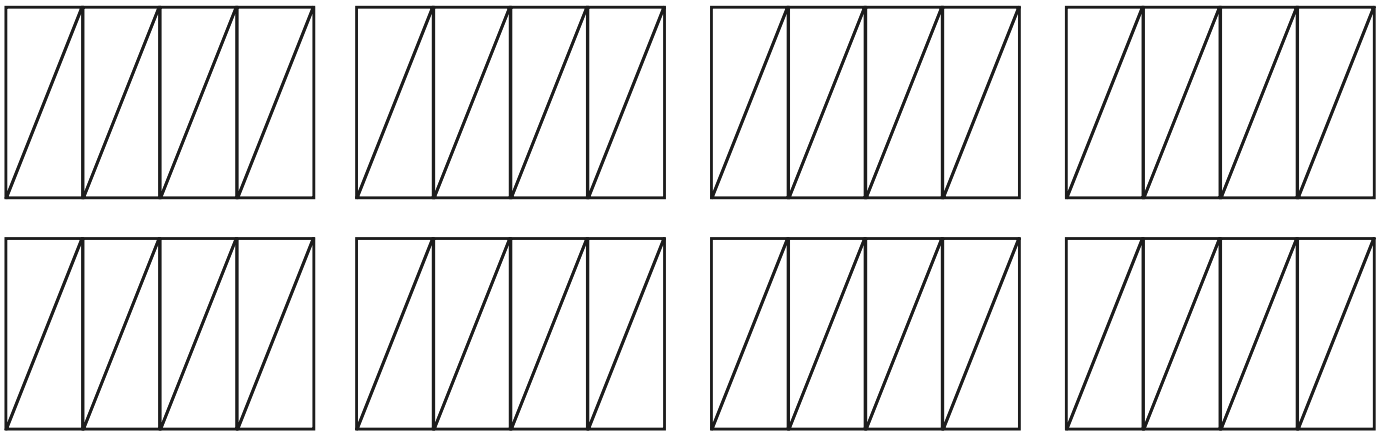








4. Find 8 different ways to colour $\frac{1}{4}$ of this shape.



How many possible ways do you think there will be altogether?

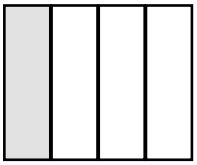
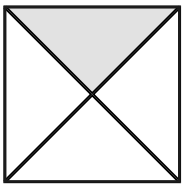
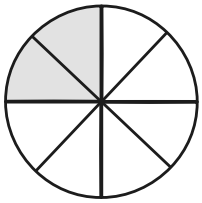
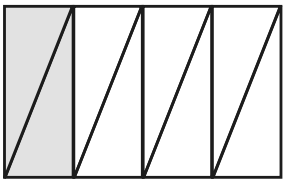
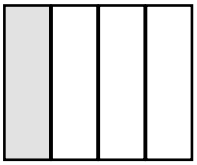
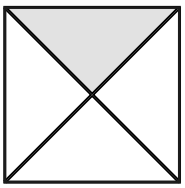
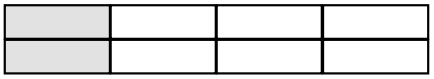
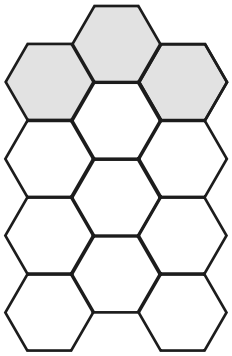
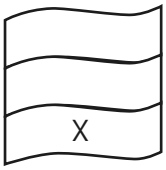
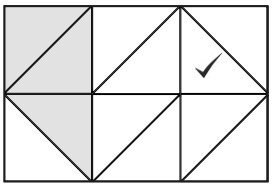
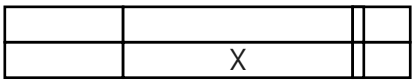
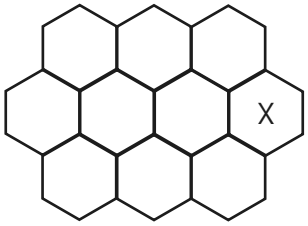
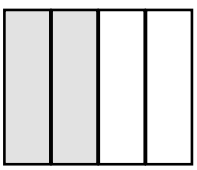
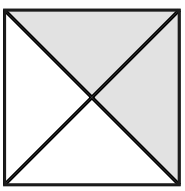
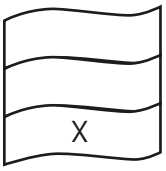
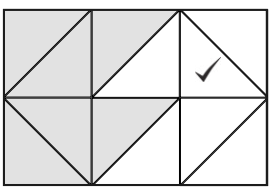
Between 1 and 10 ☐ Between 10 and 20 ☐ More than 20 ☐

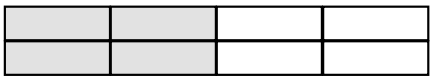
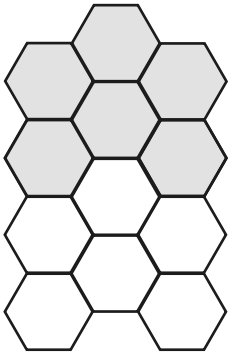
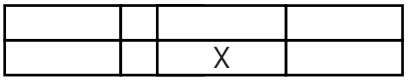
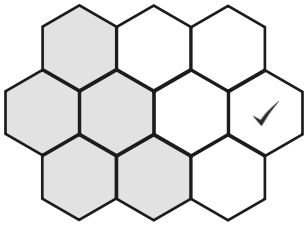
Give a reason for your answer.

Shading Shapes

5. How would you explain $\frac{2}{4}$ to someone?

Shading Shapes Answer Sheet

	LA	MA	HA
1	Accept any 2 squares shaded that are different to the others.	Accept any 3 squares shaded that are different to the others.	Accept any 3 squares shaded that are different to the others.
2	Any 1 section.  Any 1 section.  Any 2 sections.  Any 2 sections. 	Any 1 section.  Any 1 section.  Any 2 sections.  Any 3 sections. 	There are not 4 equal sections.  Any 3 sections.  Sections are not equal in size.  There are 10 sections, you can't find $\frac{1}{4}$ of 10.  *a child with a very high level of understanding may colour 2 $\frac{1}{2}$ sections which is then correct.
3	As above but a different section.	Any 2 sections.  Any 2 sections. 	There are no equal sections.  Any 6 sections. 

	LA	MA	HA
3		Any 4 sections.  Any 6 sections. 	Sections are not equal in size.  Any 5 sections. 
4	Accept any 6 sections shaded that are different to the others.	Accept any 2 sections shaded that are different to the others.	Accept any 2 sections that are different to the others. They should have easily found 8 so will work out there are more than 10. There are 28 ways. Children may be able to work methodically to predict how many ways there are.
5	$\frac{1}{4}$ of 12 = 3 so I shaded 6. $\frac{2}{4}$ is the same as $\frac{1}{2}$. Any reasoning to a similar effect.	$\frac{1}{2}$ is one part of something that is divided into 2 equal parts. $\frac{1}{4}$ is one part of something that has been divided into 4 equal parts. $\frac{2}{4}$ is 2 of 4 equal parts OR $\frac{2}{4}$ is equivalent to $\frac{1}{2}$. Accept any similar explanations.	$\frac{2}{4}$ is 2 of 4 equal parts OR $\frac{2}{4}$ is equivalent to $\frac{1}{2}$. Accept any similar explanations.