Equivalence of $\frac{1}{2}$ and $\frac{2}{4}$

Adult Guidance with Question Prompts

Children build upon previous learning in which they learned how to find a half and a quarter. They compare $\frac{1}{2}$ with $\frac{2}{4}$, noticing that these are equivalent fractions of a whole shape or number. You may wish to provide children with concrete resources, such as strips of paper, cubes or counters, so that they are able to explore this practically first.

How many parts has the whole shape been split into?

How many equal parts of the whole would we split the shape into to find a half?

How would you find two equal parts of the shape?

What could you use to help you?

How many parts do you need to shade?

How many equal parts of a whole would we split the shape into to find a quarter?

How would you find four equal parts of the shape?

What could you use to help you?

How many parts do you need to shade for $\frac{1}{2}$? How about $\frac{2}{4}$?

What do you notice about the shapes you have shaded?

What does this tell you about $\frac{1}{2}$ and $\frac{2}{4}$?

How could you find $\frac{1}{2}$ of a number?

What could you use to help you?

How could you find $\frac{1}{4}$?

If you know $\frac{1}{4}$, what would $\frac{2}{4}$ be?

What do you notice about $\frac{1}{2}$ and $\frac{2}{4}$?

Equivalence of $\frac{1}{2}$ and $\frac{2}{4}$

Shade the correct fraction. What do you notice?

$\frac{1}{2}$	$\frac{2}{4}$

What is $\frac{1}{2}$ of 8?

What is $\frac{2}{4}$ of 8?

What do you notice?

Try this with 12 or 16. Is this always true?

Children use their knowledge of the equivalence of $\frac{1}{2}$ and $\frac{2}{4}$ to decide which shape is the odd one out. They should recognise that $\frac{1}{2}$ and $\frac{2}{4}$ represent the same amount of the whole. They then move on to identifying that $\frac{1}{2}$ and $\frac{2}{4}$ of a number are the same. You may wish to provide children with cubes or objects so that they are able to try out solutions to the second question.

What fraction of the whole circle is shaded?

Is the same fraction shaded on any of the circles?

How do you know?

Which circle is the odd one out?

Why do you think that?

Could you show me how Farmer John might split his cows?

If he had 12 cows and he put $\frac{1}{2}$ in one field and $\frac{2}{4}$ in another, what would that look like?

How would you find $\frac{1}{2}$?

How would you find $\frac{1}{2}$? Can you find $\frac{2}{4}$?

How many cows would be in each field?
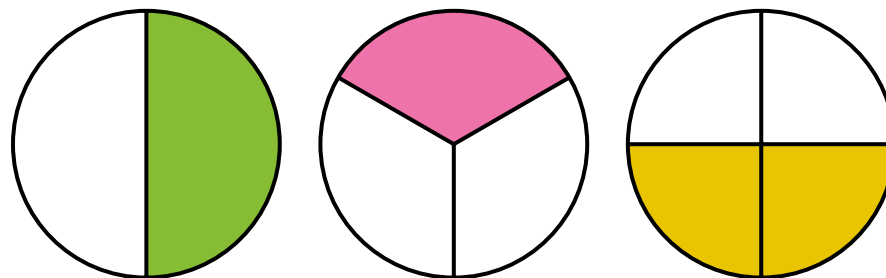
Is the number in each field the same?

Is Farmer John correct?

What does this tell you about $\frac{1}{2}$ and $\frac{2}{4}$?

Which shape is the odd one out?

Convince me!

If I put $\frac{1}{2}$ of my cows in one field and $\frac{2}{4}$ of my cows in another, I'll have the same number of cows in each field.

Is he correct? Prove it!