Reasoning and Problem Solving
Step 10: Equivalence of Half and Two Quarters

National Curriculum Objectives:

Mathematics Year 2: (2F1a) Recognise, find, name and write fractions 1/3 , 1/4 , 2/4 and 3/4 of a length, shape, set of objects or quantity
Mathematics Year 2: (2F2) Recognise the equivalence of 2/4 and 1/2

Differentiation:

Questions 1, 4 and 7 (Problem Solving)
Developing Work out half and two quarters of given amounts and decide if they are equivalent, using objects, shapes (including circles and squares) and vertical and horizontal lines; images only.
Expected Work out half and two quarters of given amounts and decide if they are equivalent, using lengths, groups of objects, shapes (including circles, triangles and quadrilaterals) and vertical, horizontal and diagonal lines; text and images.
Greater Depth Work out half and two quarters of given amounts and decide if they are equivalent, using length, mixed objects, shapes (including circles, triangles, quadrilaterals, polygons), and a mixture of vertical, horizontal and diagonal lines; text and images arranged at random.

Questions 2, 5 and 8 (Reasoning)
Developing Find and explain the odd one out using equivalence of half and two quarters. Using objects, shapes and vertical and horizontal lines; images only.
Expected Find and explain the odd one out using equivalence of half and two quarters. Using lengths, groups of objects, shapes and vertical, horizontal and diagonal lines; text and images.
Greater Depth Find and explain the odd one out using equivalence of half and two quarters. Using lengths, mixed objects, shapes and vertical, horizontal and diagonal lines; text and images arranged at random.

Questions 3, 6 and 9 (Reasoning)
Developing Find and explain the correct statement using equivalence of half and two quarters with objects, shapes and vertical and horizontal lines; images only.
Expected Find and explain the correct statement using equivalence of half and two quarters with lengths, groups of objects, shapes and vertical, horizontal and diagonal lines; text and images.
Greater Depth Find and explain the correct statement using equivalence of half and two quarters with lengths, mixed objects, shapes and vertical, horizontal and diagonal lines; text and images arranged at random.

More Year 2 Fractions resources

Did you like this resource? Don't forget to review it on our website.

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Equivalence of Half and Two Quarters

1a. Rachel has 8 sweets and gives $\frac{1}{2}$ to her friend, Izzy.

Izzy shares $\frac{2}{4}$ of her 4 lollipops with Rachel.

Who receives the most?

D

PS

Equivalence of Half and Two Quarters

1b. Mila has a packet of 4 apples and eats $\frac{1}{2}$ of them.

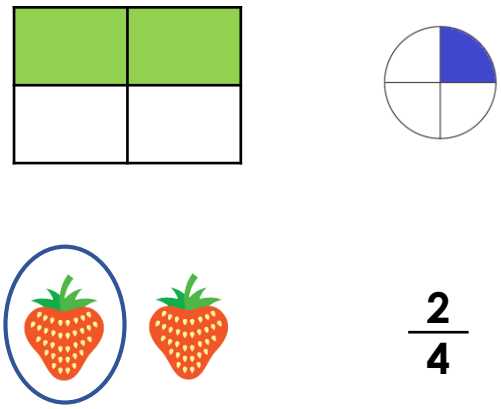
Yasmin eats $\frac{2}{4}$ of her bunch of 8 bananas.

Who eats more pieces of fruit?

D

PS

2a. Find the odd one out.



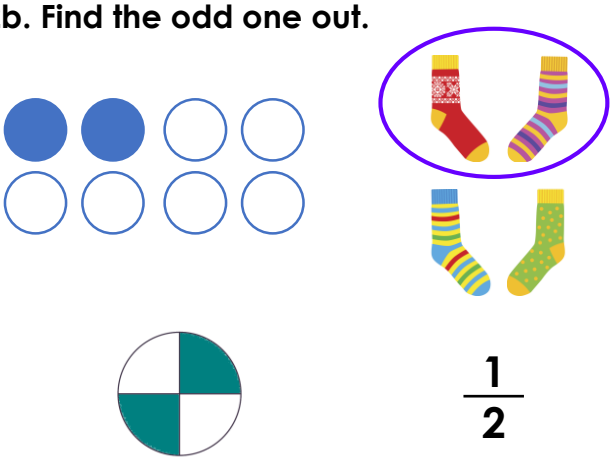
$\frac{2}{4}$

Explain your answer.

D

R

2b. Find the odd one out.



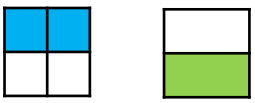
$\frac{1}{2}$

Explain your answer.

D

R

3a. Stella and Sidney are looking at equivalent fractions.



Stella says,

The squares do not have equivalent fractions shaded.

Sidney says,

The squares do have equivalent fractions shaded.

Who is correct? Explain your answer.

D

R

3b. Elena and Noah are looking at equivalent fractions.

Elena says,

The circles do not have equivalent fractions shaded.

Noah says,

The circles do have equivalent fractions shaded.

Who is correct? Explain your answer.

D

R

Equivalence of Half and Two Quarters

4a. Gemma has a bag of 12 marbles. She gives $\frac{1}{2}$ of them to her brother, Tim.
Tim has a bag of 16 marbles. He gives $\frac{2}{4}$ of them to his sister, Gemma.

Who receives the most?

E

PS

Equivalence of Half and Two Quarters

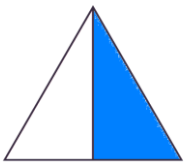
4b. Zoe has a packet of 16 cakes. At a party, $\frac{1}{2}$ of her cakes are eaten.
John has a packet of 20 cakes. $\frac{2}{4}$ of his cakes are eaten.

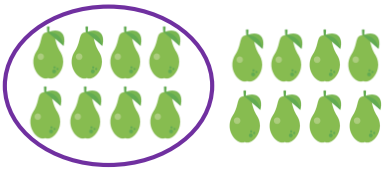
Who has more cakes left?

E

PS

5a. Find the odd one out.





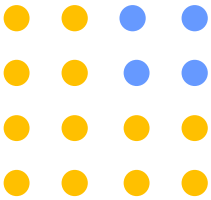
$\frac{1}{4}$

Explain your answer.

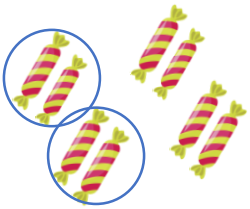
E

R

5b. Find the odd one out.



$\frac{2}{4}$

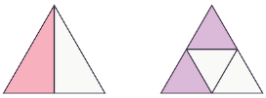


Explain your answer.

E

R

6a. Suzie and Sam are looking at equivalent fractions.



Suzie says,

The triangles do not have equivalent fractions shaded.

Sam says,

The triangles do have equivalent fractions shaded.

Who is correct? Explain your answer.

E

R

6b. Louise and Tom are looking at equivalent fractions.

Louise says,

The quadrilaterals both show $\frac{2}{4}$ shaded.

Tom says,

The quadrilaterals have different parts shaded. They are not the same.

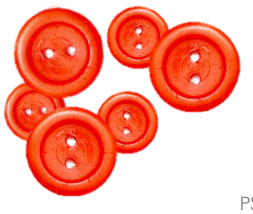
Who is correct? Explain your answer.

E

R

Equivalence of Half and Two Quarters

7a. Tilly's grandma has a bag of 28 buttons. She gives $\frac{1}{2}$ of them to Tilly. Tilly gives her grandma $\frac{2}{4}$ of her packet of 20 buttons.



Who receives the most?

GD

PS

Equivalence of Half and Two Quarters

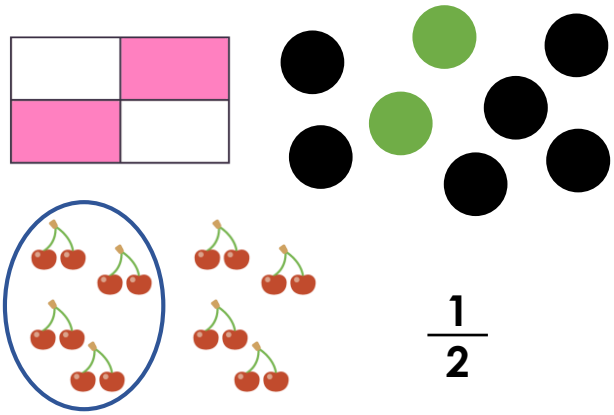
7b. Drew has a book of 24 stamps. He uses $\frac{2}{4}$ of the stamps. He finds $\frac{1}{2}$ of another book of stamps in his wallet.

Has he got more stamps left than he used?

GD

PS

8a. Find the odd one out.

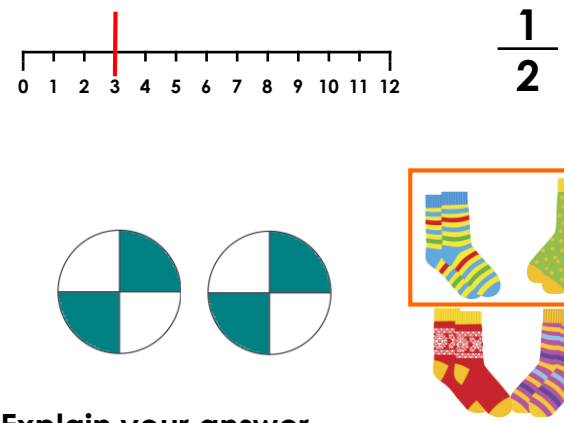


Explain your answer.

GD

R

8b. Find the odd one out.

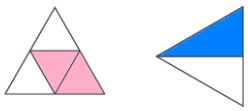


Explain your answer.

GD

R

9a. Adrian and Carly are looking at equivalent fractions.



Adrian says,

The triangles both have $\frac{1}{2}$ shaded.

Carly says,

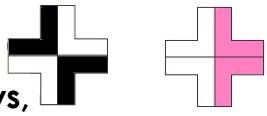
The triangles have different parts shaded. They are not the same.

Who is correct? Explain your answer.

GD

R

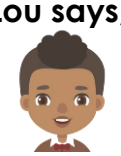
9b. Kathleen and Lou are looking at equivalent fractions.



Kathleen says,

These polygons are not equivalent.

Lou says,



These polygons are equivalent.

Who is correct? Explain your answer.

GD

R

Reasoning and Problem Solving
Equivalence of Half and Two Quarters

Developing

1a. Izzy gets the most. Izzy gets 4 sweets, Rachel gets 2 lollipops.

2a. The circle because only $\frac{1}{4}$ is shaded. The rest show equivalent fractions.

3a. Sidney is correct because each square has an equivalent fraction shaded.

Expected

4a. Gemma gets the most. Gemma gets 8 marbles, Tim gets 6 marbles.

5a. The fraction because it is only $\frac{1}{4}$. The rest show equivalent fractions.

6a. Sam is correct because both triangles have an equivalent fraction shaded.

Greater Depth

7a. Tilly gets the most buttons. Tilly gets 14 buttons, Grandma gets 10 buttons.

8a. The counters because only $\frac{1}{4}$ is shaded. The rest show equivalent fractions.

9a. Adrian is correct because $\frac{1}{2}$ and $\frac{2}{4}$ are equivalent fractions.

Reasoning and Problem Solving
Equivalence of Half and Two Quarters

Developing

1b. Yasmin eats the most. Mila eats 2 pieces of fruit, Yasmin eats 4.

2b. The counters because only $\frac{1}{4}$ is shaded. The rest show equivalent fractions.

3b. Noah is correct because each circle has an equivalent fraction shaded.

Expected

4b. John has more cakes left. John has 10 cakes, Zoe has 8 cakes.

5b. The counters because only $\frac{1}{4}$ is shown. The rest show equivalent fractions.

6b. Louise is correct because $\frac{1}{2}$ and $\frac{2}{4}$ are equivalent fractions.

Greater Depth

7b. Drew has the same number of stamps left that he used. He used 12 and has 12 left.

8b. The number line because only $\frac{1}{4}$ is marked. The rest show equivalent fractions.

9b. Lou is correct because both shapes have equivalent parts shaded.