Reasoning and Problem Solving
Step 2: Making the Whole

National Curriculum Objectives:

Mathematics Year 3: (3F1b) Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators
Mathematics Year 3: (3F1c) Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators

Differentiation:

Questions 1, 4 and 7 (Problem Solving)
Developing Explain whether a statement is correct. Using fractions up to quarters.
Expected Find combinations of fractions that will make a given whole. Using fractions up to sevenths.
Greater Depth Explain whether a statement is correct. Using fractions up to ninths.

Questions 2, 5 and 8 (Reasoning)
Developing Explain a mistake. Using fractions up to quarters.
Expected Explain which is the odd one out of pairs of shapes making a whole. Using fractions up to sevenths.
Greater Depth Explain a mistake. Using fractions up to ninths.

Questions 3, 6 and 9 (Reasoning)
Developing Explain if a statement is true or false. Using fractions up to quarters.
Expected Explain if a statement is true or false. Using fractions up to sevenths.
Greater Depth Explain if a statement is true or false. Using fractions up to ninths.

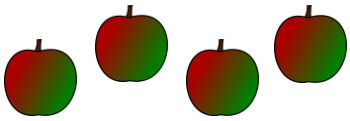
More Year 3 and 4 Fractions resources.

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

Making the Whole

1a. Pippa and Chen are sharing apples.

Together they have eaten $\frac{4}{4}$ of the apples.



How many apples could Pippa and Chen have each eaten?

Show all the combinations.

D

3 PS

Making the Whole

1b. Iqra and Will are sharing cupcakes.

Together they have eaten $\frac{3}{3}$ of the cupcakes.

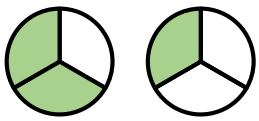
How many cupcakes could Iqra and Will have each eaten?

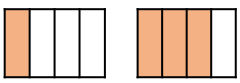
Show all the combinations.

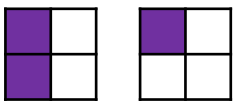
D

3 PS

2a. Which pair of shapes is the odd one out?

A. 

B. 

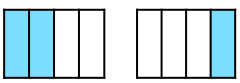
C. 

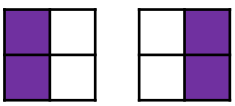
Explain your answer.

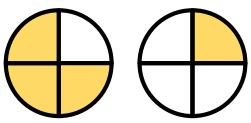
D

3 R

2b. Which pair of shapes is the odd one out?

A. 

B. 

C. 

Explain your answer.

D

3 R

3a. True or false?

$\frac{3}{3}$ and $\frac{3}{4}$ are both equal to one whole because the numerators are both 3.

Explain your answer.

D

3 R

3b. True or false?

$\frac{2}{3}$ and $\frac{3}{3}$ are both equal to one whole because the denominators are both 3.

Explain your answer.

D

3 R

Making the Whole

4a. Ivy and Toby are sharing a chocolate bar.

Together they have eaten $\frac{6}{6}$ of the chocolate bar.

How many pieces could Ivy and Toby have each eaten?

Show all the combinations.

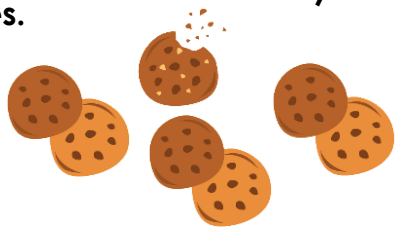
E

3 PS

Making the Whole

4b. Euan and Millie are sharing cookies.

Together they have eaten $\frac{7}{7}$ of the cookies.



How many cookies could Euan and Millie have each eaten?

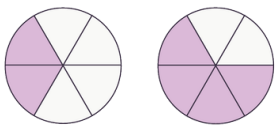
Show all the combinations.

E

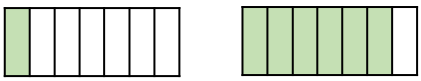
3 PS

5a. Which pair of shapes is the odd one out?

A.



B.



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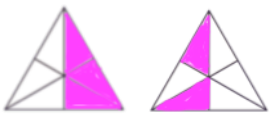


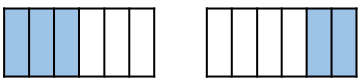
Explain your answer.

E

3 R

5b. Which pair of shapes is the odd one out?

A.



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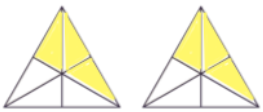

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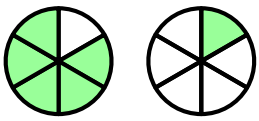


Explain your answer.

E

3 R

6a. True or false?

$\frac{6}{6}$ and $\frac{6}{7}$ are both equal to one whole because the numerators are the same.

Explain your answer.

E

3 R

6b. True or false?

$\frac{5}{6}$ and $\frac{6}{6}$ are both equal to one whole because the denominators are the same.

Explain your answer.

E

3 R

Making the Whole

7a. Max and Tiana are sharing some sweets.

Together they have eaten $\frac{9}{9}$ of the sweets.

How many sweets could Max and Tiana have each eaten?

Show all the combinations.

GD

3 PS

Making the Whole

7b. Jay and Mia are sharing pizza.

Together they have eaten $\frac{8}{8}$ of the pizza.

How many slices could Jay and Mia have each eaten?

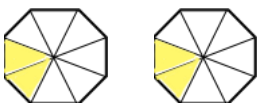
Show all the combinations.

GD

3 PS

8a. Which pair of shapes is the odd one out?

A.



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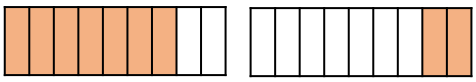

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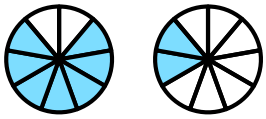


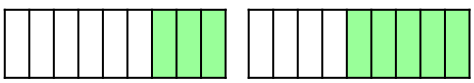
Explain your answer.

GD

3 R

8b. Which pair of shapes is the odd one out?

A.



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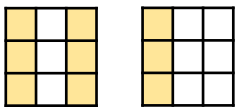

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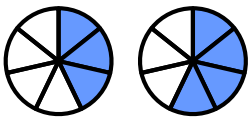

Explain your answer.

GD

3 R

9a. True or false?

$\frac{8}{9}$ and $\frac{8}{8}$ are both equal to one whole.

Explain your answer.

GD

3 R

9b. True or false?

$\frac{8}{8}$ and $\frac{9}{9}$ are both equal to one whole.

Explain your answer.

GD

3 R

Reasoning and Problem Solving
Making the Whole

Developing

1a.

Pippa	Chen
4	0
3	1
2	2
1	3
0	4

2a. C is the odd one out because the shaded fractions do not make a whole.

3a. False. The numerator and denominator must be the same within the same fraction.

Expected

4a

Toby	Ivy
6	0
5	1
4	2
3	3
2	4
1	5
0	6

5a. C is the odd one out because the shaded fractions do not make a whole.

6a. False. The numerator and denominator must be the same within the same fraction.

Greater Depth

7a.

Max	Tiana
9	0
8	1
7	2
6	3
5	4
4	5
3	6
2	7
1	8
0	9

8a. A is the odd one out because the shaded fractions do not make a whole.

9a. False. The numerator and denominator must be the same within the same fraction.

Reasoning and Problem Solving
Making the Whole

Developing

1b.

Iqra	Will
3	0
2	1
1	2
0	3

2b. A is the odd one out because the shaded fractions do not make a whole

3b. False. The numerator and denominator must be the same within the same fraction.

Expected

4b

Euan	Millie
7	0
6	1
5	2
4	3
3	4
2	5
1	6
0	7

5b. A is the odd one out because the shaded fractions do not make a whole.

6b. False. The numerator and denominator must be the same within the same fraction.

Greater Depth

7b.

Jay	Mia
8	0
7	1
6	2
5	3
4	4
3	5
2	6
1	7
0	8

8b. A is the odd one out because the shaded fractions do not make a whole.

9b. True because the for both fractions, the numerator and denominator are equal.