Tuesday 16th June
Year 5/6: Ratio and Fractions

Introduction

Complete the sentence to describe the objects below.

There are _____ for every _____.

Introduction

Complete the sentence to describe the objects below.

There are 4 lightning bolts for every 3 squares.

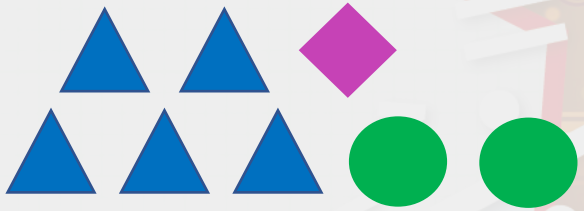
Varied Fluency 1

Match the fraction of circles to the correct set of objects.

$\frac{2}{5}$

$\frac{2}{8}$

$\frac{3}{6}$



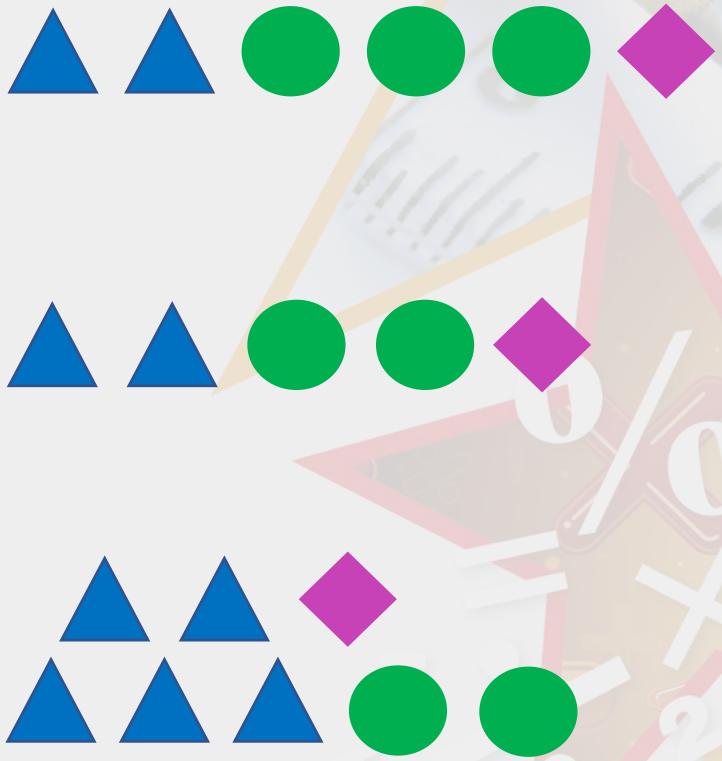
Varied Fluency 1

Match the fraction of circles to the correct set of objects.

$\frac{2}{5}$

$\frac{2}{8}$

$\frac{3}{6}$



Varied Fluency 2

True or false?

If there are 3 bananas for every 5 peaches, $\frac{3}{8}$ of the fruit are peaches.

Varied Fluency 2

True or false?

If there are 3 bananas for every 5 peaches, $\frac{3}{8}$ of the fruit are peaches.

False, $\frac{3}{8}$ of the fruit are bananas.

Varied Fluency 3

Complete the sentence below if $\frac{4}{9}$ are squares and $\frac{3}{9}$ are circles.

There are _____ squares for every _____ circles.

Varied Fluency 3

Complete the sentence below if $\frac{4}{9}$ are squares and $\frac{3}{9}$ are circles.

There are 4 squares for every 3 circles.

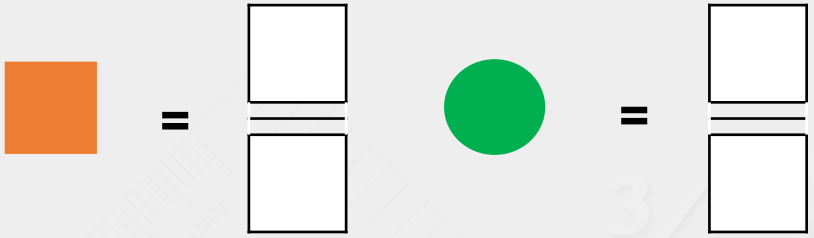
Varied Fluency 4

Use the statement below to complete the bar model.

There are 6 squares for every 2 circles.

	2

Write a fraction showing each quantity.



Varied Fluency 4

Use the statement below to complete the bar model.

There are 6 squares for every 2 circles.

Write a fraction showing each quantity.

 = $\frac{6}{8}$  = $\frac{2}{8}$

Problem Solving 1

Gemma is making a bracelet using orange and blue beads.

Each bracelet contains 18 beads in total.

Write 5 pairs of fractions to show the possible ratio blue to orange beads.

Problem Solving 1

Gemma is making a bracelet using orange and blue beads.

Each bracelet contains 18 beads in total.

Write 5 pairs of fractions to show the possible ratio blue to orange beads.

Various answers, for example:

$\frac{11}{18}$ blue beads and $\frac{7}{18}$ orange beads

Reasoning 1

Which of the following statements match the image?

A. $\frac{1}{6}$ of the vegetables are pumpkins.

B. There are 3 chillies for every 4 peppers.

C. There are 8 items in total.

Explain how you know.

Reasoning 1

Which of the following statements match the image?

A. $\frac{1}{6}$ of the vegetables are pumpkins.

B. There are 3 chillies for every 4 peppers.

C. There are 8 items in total.

Explain how you know.

Statement C because…

Reasoning 1

Which of the following statements match the image?

A. $\frac{1}{6}$ of the vegetables are pumpkins.

B. There are 3 chillies for every 4 peppers.

C. There are 8 items in total.

Explain how you know.

Statement C because there are four chillies, one pumpkin and three peppers, which makes 8 in total.

Reasoning 2

Emma has a bag of 1p and 2p coins.

$\frac{9}{13}$ of the coins are worth 1p.

Emma says:

There are more 2p coins than 1p coins.

Nick says:

There are four 2p coins.

Who is correct? Explain how you know.

Reasoning 2

Emma has a bag of 1p and 2p coins.

$\frac{9}{13}$ of the coins are worth 1p.

Emma says:

There are more 2p coins than 1p coins.

Nick says:

There are four 2p coins.

Who is correct? Explain how you know.

Nick is correct because…

Emma has a bag of 1p and 2p coins.

$\frac{9}{13}$ of the coins are worth 1p.

Emma says:

There are more 2p coins than 1p coins.

Nick says:

There are four 2p coins.

Who is correct? Explain how you know.

Nick is correct because there are 13 coins in total and if there are nine 1p coins, there must be four 2p coins.

Year 5 and Year 6 Developing

1a. Match the fraction of squares to the correct set of objects.

$\frac{4}{6}$ A. 

$\frac{3}{6}$ B. 

$\frac{2}{5}$ C. 

6 VF

1b. Match the fraction of pentagons to the correct set of objects.

$\frac{2}{5}$ A. 

$\frac{4}{6}$ B. 

$\frac{1}{4}$ C. 

6 VF

2a. True or false? If there are 2 oranges for every 4 apples, $\frac{4}{6}$ of the fruit are apples.

6 VF

2b. True or false? If there are 3 pears for every 2 grapes, $\frac{3}{5}$ of the fruit are grapes.

6 VF

3a. Complete the sentence below if $\frac{3}{5}$ are pentagons and $\frac{2}{5}$ are circles.

There are _____ pentagons for every _____ circles.

6 VF

3b. Complete the sentence below if $\frac{4}{6}$ are circles and $\frac{2}{6}$ are squares.

There are _____ circles for every _____ squares.

6 VF

1a. James is making a keyring using red and green beads.

Each keyring contains 20 beads in total.

Write 3 pairs of fractions to show the possible ratio of red to green beads.

D

6 PS

1b. Tara is making a keyring using blue and purple beads.

Each keyring contains 15 beads in total.

Write 3 pairs of fractions to show the possible ratio of blue to purple beads.

D

6 PS

2a. Which of the following statements match the image?

A. $\frac{4}{9}$ of the fruit are satsumas.

B. There are nine fruits in total.

C. There are five lemons for every five satsumas.

Explain how you know.

2b. Which of the following statements match the image?

A. There are five items in total.

B. $\frac{2}{6}$ of the items are onions.

C. There are two tomatoes for every four onions.

Explain how you know.

Year 6 Expected

5a. Match the fraction of triangles to the correct set of objects.

$\frac{3}{7}$ A. 

$\frac{7}{10}$ B. 

$\frac{2}{6}$ C. 

6 VF

5b. Match the fraction of circles to the correct set of objects.

$\frac{3}{8}$ A. 

$\frac{4}{7}$ B. 

$\frac{2}{5}$ C. 

6 VF

6a. True or false?

If there are 2 oranges for every 3 apples, $\frac{3}{5}$ of the fruit are oranges.

6 VF

6b. True or false?

If there are 4 bananas for every 2 grapes, $\frac{2}{5}$ of the fruit are grapes.

6 VF

7a. Complete the sentence below if $\frac{2}{7}$ are pentagons and $\frac{4}{7}$ are squares.

There are _____squares for every _____ pentagons.

6 VF

7b. Complete the sentence below if $\frac{3}{8}$ are circles and $\frac{2}{8}$ are pentagons.

There are _____circles for every _____ pentagons.

6 VF

4a. Pippa is making a bracelet using purple and green jewels.

Each bracelet contains 30 jewels in total.

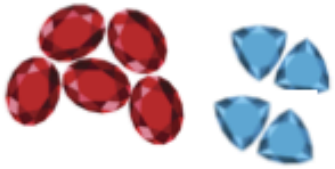
Write 5 pairs of fractions to show the possible ratio of green to purple jewels.

E

4b. Carol is making a necklace using red and blue jewels.

Each necklace contains 45 jewels in total.

Write 5 pairs of fractions to show the possible ratio of red to blue jewels.



E

5a. Which of the following statements match the image?

A. $\frac{3}{9}$ **of the fruit are lemons.**

B. There are three satsumas for every four strawberries.

C. There are eleven items in total.

Explain how you know.

5b. Which of the following statements match the image?

A. There are nine items in total.

B. $\frac{4}{10}$ **of the items are carrots.**

C. There is one tomato for every onion.

Explain how you know.

Year 6 Greater Depth

9a. Match the fraction of circles to the correct set of objects.

$\frac{2}{3}$

$\frac{1}{3}$

$\frac{1}{4}$

A. 

B. 

C. 

GD

6 VF

9b. Match the fraction of triangles to the correct set of objects.

$\frac{1}{2}$

$\frac{1}{3}$

$\frac{2}{3}$

A. 

B. 

C. 

GD

6 VF

10a. True or false?

If there are 6 pears and 4 apples for every 5 lemons, $\frac{2}{5}$ of the fruit are pears.

GD

6 VF

10b. True or false?

If there are 10 oranges and 6 melons for every 2 plums, $\frac{1}{3}$ of the fruit are plums.

GD

6 VF

11a. Complete the sentence below if $\frac{2}{11}$ are pentagons, $\frac{\square}{\square}$ are squares and $\frac{3}{11}$ are circles.

There are _____ pentagons and _____ circles for every _____ squares.

GD

6 VF

11b. Complete the sentence below if $\frac{4}{13}$ are circles, $\frac{\square}{\square}$ are pentagons and $\frac{4}{13}$ are triangles.

There are _____ triangles and _____ circles for every _____pentagons.

GD

VF

7a. Janet is baking a cake using butter, sugar and flour.

The ingredients weigh 1,000g in total.

Write 5 sets of fractions to show the possible ratio of butter to sugar to flour.

Show the fractions in their simplest form.

GD

6 PS

7b. Spencer is baking biscuits using oats, sugar and butter.

The ingredients weigh 1,200g in total.

Write 5 pairs of fractions to show the possible ratio of oats to sugar to butter.

Show the fractions in their simplest form.

GD

6 PS

8a. Which of the following statements match the image?

A. $\frac{1}{3}$ of the fruit are cherries.

B. There are half as many cherries as plums.

C. Plums of make up $\frac{1}{2}$ the fruit.

Explain how you know.

8b. Which of the following statements match the image?

A. $\frac{1}{5}$ of the salad is lettuce.

B. $\frac{1}{2}$ of the salad is tomatoes.

C. There are 3 carrots for every lettuce.

Explain how you know.