

Week 17

Friday 17th July 2020

**Year 6 Using Ratio and Fractions -
Reasoning and Problem Solving**

Ratio And Fractions

Ratio And Fractions

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.



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.



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.



6 R

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.



6 R

3a. Sam has a bag of 5p and 10p coins.



Sam says:

$\frac{3}{8}$ of the coins are 10p coins.

Bella says:

There are five 5p coins for every eight 10p coins.

Who is correct? Explain how you know.



6 R

3b. Amy has a bag of 1p and 2p coins.



Amy says:

There are four 2p coins for every five 1p coins.

Bobby says:

$\frac{4}{9}$ of the coins are 1p coins.

Who is correct? Explain how you know.



6 R

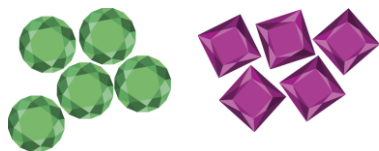
Ratio And Fractions

Ratio And Fractions

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.

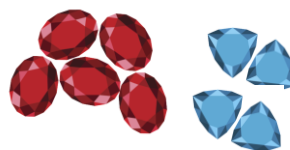


6 PS

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.



6 PS

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.



6 R

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.



6 R

6a. Millie has a bag of 5p and 10p coins.

$\frac{2}{9}$ of the coins are worth 10p.

Millie says:



There are seven 5p coins for every two 10p coins.

Jaxon says:



There are 9 coins in total.

Who is correct? Explain how you know.



6 R

6b. Stan has a bag of 1p and 2p coins.

$\frac{9}{15}$ of the coins are worth 2p.

Susie says:



There are 24 coins in total.

Stan says:



There are six 1p coins for every nine 2p coins.

Who is correct? Explain how you know.



6 R

Ratio And Fractions

Ratio And Fractions

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.



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.



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.



6 R

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.



6 R

9a. Benji has a bag of 20p, 5p and 10p coins. The total value is £1.

Benji says:



$\frac{1}{2}$ of the total is made of 20p coins.

Gail says:



Benji has four 10p coins and four 5p coins for every two 20p coins.

Who is correct? Explain how you know.



6 R

9b. Jack has a bag of 2p, 5p and 10p coins. The total value is 85p.

Claire says:



Jack has 5 of each different coin.

Jack says:



$\frac{1}{2}$ of the total value is from 2p coins.

Who is correct? Explain how you know.



6 R