11.2.21 Fractions

Learning Objective:
We are learning to add fractions where the total is greater than 1.

I will be successful if:

- I can add 2 or more proper fractions where the total is greater than 1.
- I can use pictoral representations to make equivalent fractions and find common denominators.
- I can convert between improper fractions and mixed numbers.

Key Vocabulary

fractions as part of a whole
equal
representations
shapes
quantities
numerator
denominator
common denominator
non-unit and unit fractions
equivalent fractions
improper fractions
mixed numbers

Flashback 4

Year 5 | Week 6 | Day 4

1) Work out $\frac{3}{5} + \frac{3}{10}$

2) Which is greater, $\frac{3}{4}$ or $\frac{7}{8}$?

3) Work out 1,771 ÷ 7

4) Chocolate bars cost 35p
How much do six chocolate bars cost?

White Rose Maths

Challenge - Chose the correct answer to complete the statement.

5) All angles of a rectangle are ....acute, right, obtuse or reflex

6) All angles of a triangle are ....acute, right, obtuse or reflex

7) All angles of a pentagon are ....acute, right, obtuse or reflex

8) All angles of a semi-circle are ....acute, right, obtuse or reflex

Flashback 4

Year 5 | Week 6 | Day 4

1) Work out $\frac{3}{5} + \frac{3}{10}$ $\frac{9}{10}$

2) Which is greater, $\frac{3}{4}$ or $\frac{7}{8}$? $\frac{7}{8}$

3) Work out 1,771 ÷ 7 253

4) Chocolate bars cost 35p £2.10
How much do six chocolate bars cost?

White Rose Maths

Challenge - Chose the correct answer to complete the statement.

5) All angles of a rectangle are ....acute, right, obtuse or reflex

6) All angles of a triangle are ....acute, right, obtuse or reflex

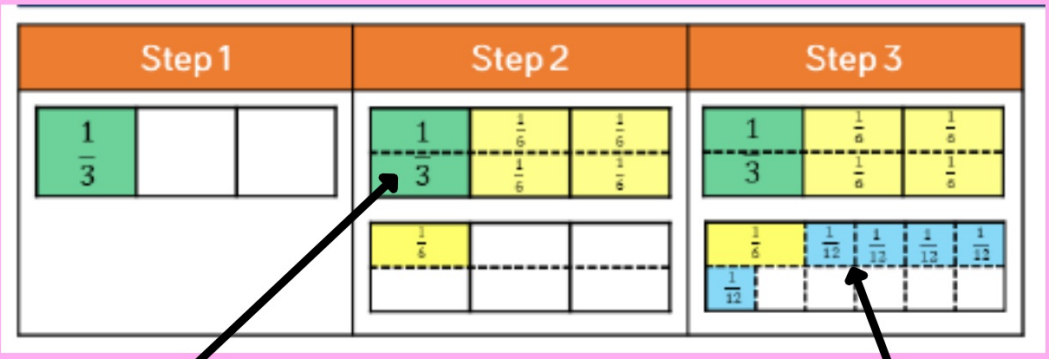
7) All angles of a pentagon are ....acute, right, obtuse or reflex

8) All angles of a semi-circle are ....acute, right, obtuse or reflex

Adding 3 fractions

$$\frac{1}{3} + \frac{5}{6} + \frac{5}{12} = 1\frac{7}{12}$$

What is happening in each step?

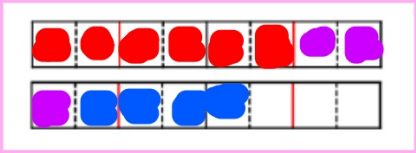


$$\frac{1}{3} = \frac{2}{6}$$

$$\frac{2}{12} = \frac{1}{6}$$

Adding 3 fractions

$$\frac{3}{4} + \frac{3}{8} + \frac{1}{2} =$$



First step: Convert the fractions so that they have a common denominator.

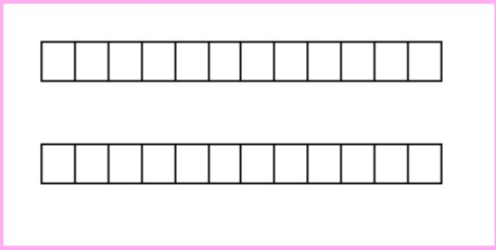
$\frac{3}{4} = \frac{6}{8}$ $\frac{3}{8}$ $\frac{1}{2} = \frac{4}{8}$

$= \frac{13}{8}$ or $1\frac{5}{8}$

Let's have a go at this one together. Give the answer as a mixed fraction

$$\frac{3}{4} + \frac{5}{12} + \frac{1}{2} =$$

$$\frac{3}{4} = \frac{\quad}{12}$$



$$\frac{1}{2} = \frac{\quad}{12}$$

Now have a go at adding these fractions. Draw a model of your choice to help you, if you need to.
Start by finding equivalent fractions so they have a common denominator. Give your answer as a mixed number.

$$\frac{1}{2} + \frac{5}{6} + \frac{5}{12}$$

$$\frac{1}{4} + \frac{7}{8} + \frac{3}{16}$$

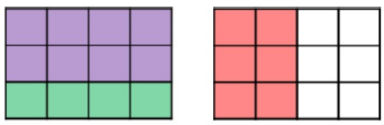
$$\frac{2}{3} + \frac{1}{6} + \frac{7}{12}$$

11.2.21

Have a go at the questions on the sheet attached.

Reasoning challenges

Annie is adding three fractions.
She uses the model to help her.



What could her three fractions be?

How many different combinations can you find?

Can you write a number story to represent your calculation?

The sum of three fractions is $2\frac{1}{8}$

The fractions have different denominators.

All of the fractions are greater than or equal to a half.

None of the fractions are improper fractions.

All of the denominators are factors of 8

What could the fractions be?