10.2.21 Fractions

Learning Objective:
We are learning to add 3 or more fractions.

I will be successful if:

- I can use my knowledge of factors and multiples to help me see patterns between fractions.
- I can add fractions with a different denominator.
- I can use pictoral representations to make equivalent fractions and find common denominators.

Key Vocabulary

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

Flashback 4

Year 5 | Week 6 | Day 3

1) Which is greater, $1\frac{3}{4}$ or $1\frac{3}{7}$?

2) What fraction is missing? $\frac{9}{7}, \frac{7}{7}, \text{---}, \frac{3}{7}$

3) Multiply 56 by 32

4) Round 7.6 to the nearest whole number.

White Rose Maths

Challenge

5) 9 less than -15

6) 12 more than -5

7) 17 less than 12

8) 13 more than -7

Flashback 4

Year 5 | Week 6 | Day 3

1) Which is greater, $1\frac{3}{4}$ or $1\frac{3}{7}$? $1\frac{3}{4}$

2) What fraction is missing? $\frac{9}{7}, \frac{7}{7}, ---, \frac{3}{7}$ $\frac{5}{7}$

3) Multiply 56 by 32 1,792

4) Round 7.6 to the nearest whole number. 8

White Rose Maths

Challenge

5) 9 less than -15 -24

6) 12 more than -5 7

7) 17 less than 12 -5

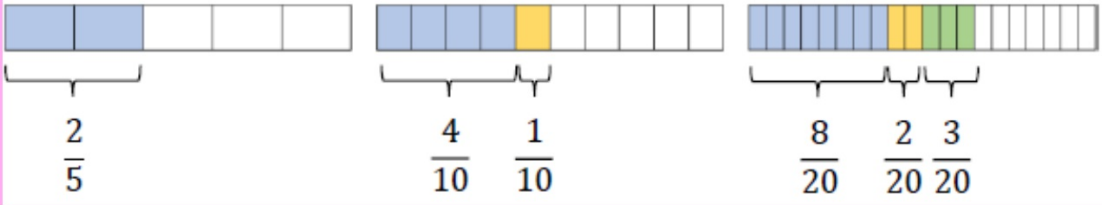
8) 13 more than -7 6

Yesterday, we looked at how we can use equivalent fractions to help us add fractions with a different denominator.

Today, we will look at how we add more than 2 fractions

For example: $\frac{1}{2} + \frac{2}{6} + \frac{5}{12}$

Ron uses a bar model to calculate $\frac{2}{5} + \frac{1}{10} + \frac{3}{20}$



$\frac{2}{5} = \frac{4}{10} = \frac{8}{20}$ $\frac{1}{10} = \frac{2}{20}$

$\frac{8}{20} + \frac{2}{20} + \frac{3}{20} = \_\_$

It is easier to convert up to the highest denominator, rather than go down to the lowest denominator. Why?

Use a bar model to solve:

$\frac{1}{4}+\frac{3}{8}+\frac{5}{16}$ $\frac{1}{2}+\frac{1}{6}+\frac{1}{12}$

Farmer Staneff owns a field.
He plants carrots on $\frac{1}{3}$ of the field.
He plants potatoes on $\frac{2}{9}$ of the field.
He plants onions on $\frac{5}{18}$ of the field.
What fraction of the field is covered altogether?

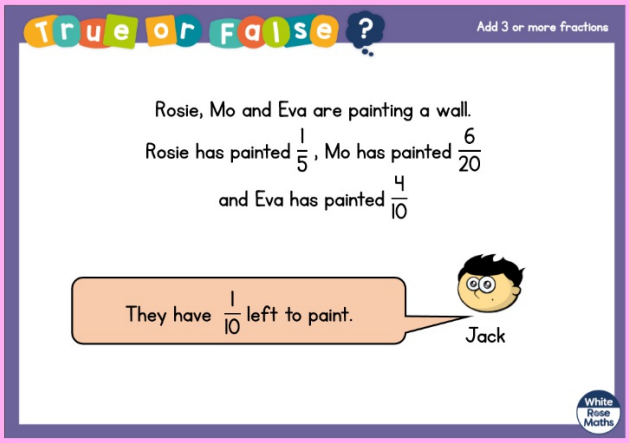
$\frac{1}{3} + \frac{2}{9} + \frac{5}{18}$

What's the best denominator to make them all?

10.2.21

Have a go at the questions on the sheet attached.

Reasoning challenges



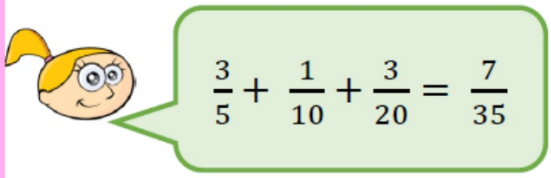
Jack has added 3 fractions together to get an answer of $\frac{17}{18}$

What 3 fractions could he have added?

Can you find more than one answer?

Eva is attempting to answer:

$$\frac{3}{5}+\frac{1}{10}+\frac{3}{20}$$



Do you agree with Eva?
Explain why.

Complete the fractions.

$\frac{1}{5}+\frac{\square}{10}+\frac{8}{20}=1$ $\frac{1}{5}+\frac{\square}{15}+\frac{1}{30}=1$