10.02.20201 – ANSWERS Adding Fractions Y3 Recap Challenge Sheet
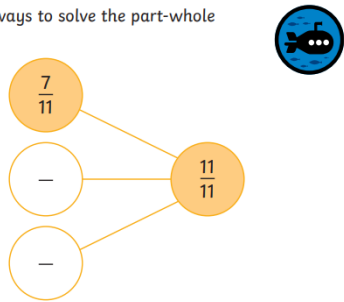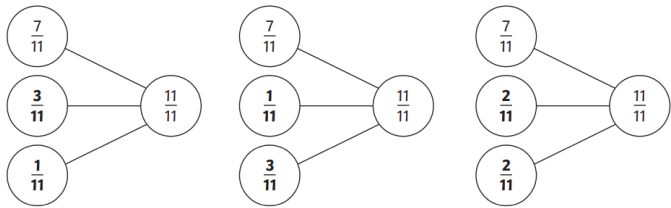
*Use this sheet **WHEN** you've completed the main worksheet and want a challenge. Remember to use your blue book if you have it to show your workings. The questions were resourced from Twinkl Diving into Mastery.*
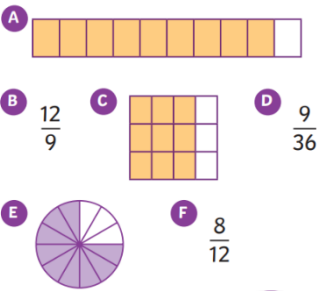
1.

Find 2 ways to solve the part-whole model.

$\frac{7}{11}$ — $\frac{11}{11}$ —

Here are some possible answers:

$\frac{7}{11}$ → $\frac{3}{11}$, $\frac{1}{11}$ → $\frac{11}{11}$

$\frac{7}{11}$ → $\frac{1}{11}$, $\frac{3}{11}$ → $\frac{11}{11}$

$\frac{7}{11}$ → $\frac{2}{11}$, $\frac{2}{11}$ → $\frac{11}{11}$

2.

Children have been adding together 3 fractions.

$$\frac{4}{12} + \frac{3}{12} + \frac{2}{12}$$

A

B $\frac{12}{9}$ C   D $\frac{9}{36}$

E   F $\frac{8}{12}$

Half of these representations show the correct answer.

Ingrid

Is Ingrid correct? For the representations that don't show the correct answer, explain what could have gone wrong.

The answer to the question is $\frac{9}{12}$

The easiest thing to do is to write down what all fractions represent and see if they are equivalent to $\frac{9}{12}$

A = $\frac{9}{10}$ wrong   e = $\frac{9}{12}$ correct

B = $\frac{12}{9}$ wrong   f = $\frac{8}{12}$ wrong

C = $\frac{9}{12}$ correct   Ingrid is incorrect. $\frac{2}{6}$ are correct. She

D = $\frac{9}{36}$ = $\frac{3}{12}$ wrong   thought $\frac{3}{6}$ would be correct.

Possible reasons why she's wrong:

a) The denominator is too small.
b) She's written it the wrong way round
d) She has added the denominators
f) She hasn't added the numerators correctly.

3.

2 children are given tennis balls during sports practice. Each child is given an odd number of balls.

How many number sentences can you think of that show the number of tennis balls that each child was given?
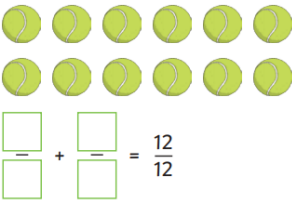
$\frac{\square}{\square} + \frac{\square}{\square} = \frac{12}{12}$

These are all the possible answers:

$\frac{1}{12} + \frac{11}{12} = \frac{12}{12}$
$\frac{3}{11} + \frac{9}{11} = \frac{12}{12}$
$\frac{5}{11} + \frac{7}{11} = \frac{12}{12}$
$\frac{7}{11} + \frac{5}{11} = \frac{12}{12}$
$\frac{9}{11} + \frac{3}{11} = \frac{12}{12}$
$\frac{11}{11} + \frac{1}{11} = \frac{12}{12}$

4.

Jim says it is impossible for both missing numerators to be even numbers.

Is Jim correct? Explain with reasoning.

$\frac{1}{\square} + \frac{\square}{15} + \frac{5}{\square} + \frac{\square}{15} = \frac{13}{15}$

Jim is correct. In the number sentence, one of the missing numerators is an even number and one of them is an odd number.

$\frac{1}{15} + \frac{1}{15} + \frac{5}{15} + \frac{6}{15} = \frac{13}{15}$ $\frac{1}{15} + \frac{5}{15} + \frac{5}{15} + \frac{2}{15} = \frac{13}{15}$

$\frac{1}{15} + \frac{2}{15} + \frac{5}{15} + \frac{5}{15} = \frac{13}{15}$ $\frac{1}{15} + \frac{6}{15} + \frac{5}{15} + \frac{1}{15} = \frac{13}{15}$

$\frac{1}{15} + \frac{3}{15} + \frac{5}{15} + \frac{4}{15} = \frac{13}{15}$ $\frac{1}{15} + \frac{4}{15} + \frac{5}{15} + \frac{3}{15} = \frac{13}{15}$

When you've finished – check your answers on the answer sheet.