Discussion Problems
Step 11: Add Mixed Numbers

National Curriculum Objectives:

Mathematics Year 5: (5F2a) Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number [for example, 2/5 + 4/5 = 6/5 = 1 1/5]
Mathematics Year 5: (5F4) Add and subtract fractions with the same denominator and denominators that are multiples of the same number

About this resource:

This resource has been designed for pupils who understand the concepts within this step. It provides pupils with more opportunities to enhance their reasoning and problem solving skills through more challenging problems. Pupils can work in pairs or small groups to discuss with each other about how best to tackle the problem, as there is often more than one answer or more than one way to work through the problem.

There may be various answers for each problem. Where this is the case, we have provided one example answer to guide discussion.

We recommend self or peer marking using the answer page provided to promote discussion and self-correction.

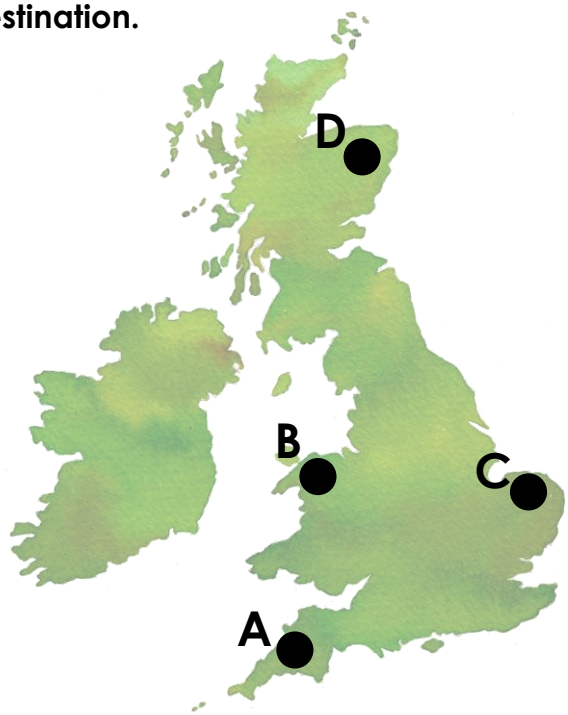
More Year 5 Fractions resources.

Did you like this resource? Don't forget to review it on our website.

Add Mixed Numbers

1. Frasier and Ellan are going on holiday. They want to visit two places but want to use 5 or less tanks of petrol to get to their final destination.

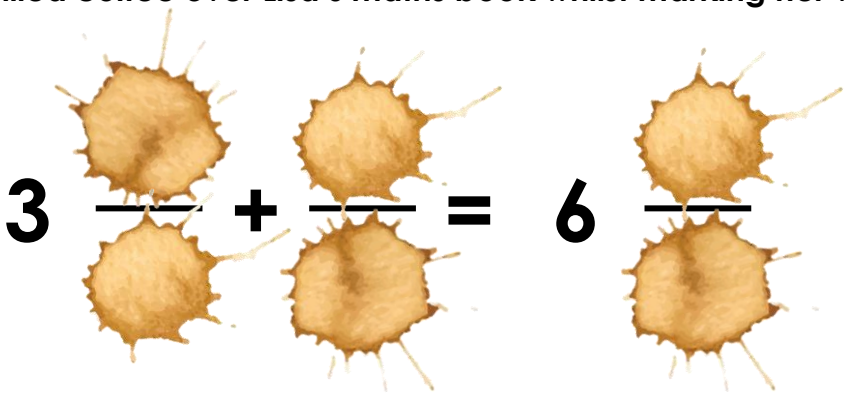
Route	Petrol needed
A to B or B to A	$1\frac{2}{5}$ tanks
A to C or C to A	$1\frac{9}{11}$ tanks
A to D or D to A	$3\frac{3}{7}$ tanks
B to C or C to B	$1\frac{9}{10}$ tanks
B to D or D to B	$2\frac{4}{5}$ tanks
C to D or D to B	$2\frac{7}{8}$ tanks



Explore where they could have started and two journeys they could take that use 5 or less tanks of petrol.

DP

2. Mrs Clarke has spilled coffee over Lisa's maths book whilst marking her work.



15	1	18	20	8	12
14	4	5	17	28	24

Use the digit cards to explore the different calculations Lisa could have completed if all the denominators were different and the second fraction was improper.

DP

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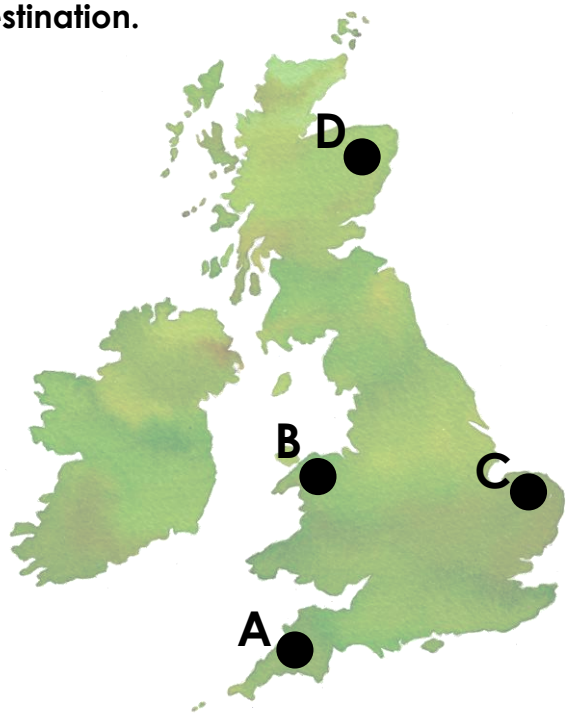

Explore where they could have started and two journeys they could take that use 5 or less tanks of petrol.

Various answers, for example: A to B and B to C; $1\frac{2}{5} + 1\frac{9}{10} = 3\frac{3}{10}$

DP

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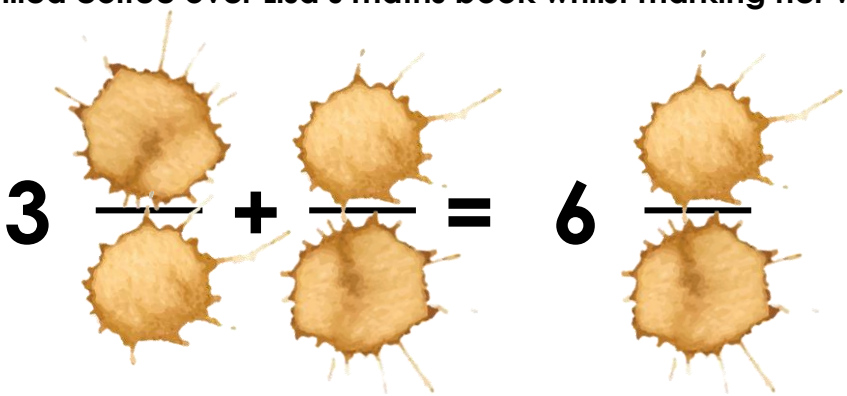

15	1	18	20	8	12
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Use the digit cards to explore the different calculations Lisa could have completed if all the denominators were different and the second fraction was improper.

Various answers, for example: $3\frac{1}{4} + \frac{18}{5} = 6\frac{17}{20}$

DP