

Discussion Problems

Step 13: Subtract Mixed Numbers 1

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 \[for example, \$2/5 + 4/5 = 6/5 = 1 \frac{1}{5}\$ \]](#)

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.

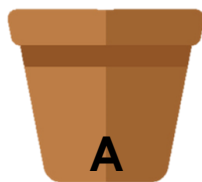
We recommend self or peer marking using the answer page provided to promote discussion and self-correction.

More [Year 5 Fractions](#) resources.

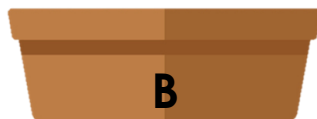
Did you like this resource? Don't forget to [review](#) it on our website.

Subtract Mixed Numbers 1

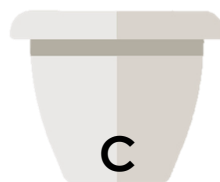
1. Farkhanda is replanting her plant pots. She starts with $1\frac{3}{4}$ bags of compost and needs to leave at least one whole bag for her grandma to use. Each pot holds a different fraction of a bag.



A



B



C



D

The fraction this pot can hold has a denominator which is three times the size of the numerator.

The fraction this pot can hold has a denominator between 10 and 12 with a numerator that is 2 less than the denominator.

The fraction this pot can hold has prime numbers for both the denominator and numerator.

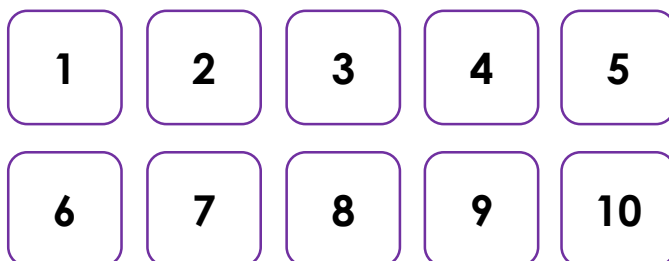
The fraction this pot can hold has a numerator that is more than half the denominator.

Investigate which of these 4 pots she could choose.

DP

2. Explore the different ways to arrange the digit cards to make the statement true if no denominator is the same.

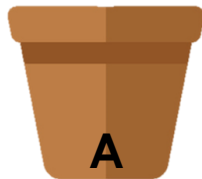
$$1\frac{\boxed{}}{\boxed{}} - \frac{\boxed{}}{\boxed{}} > 1\frac{\boxed{}}{\boxed{}} - \frac{\boxed{}}{\boxed{}}$$



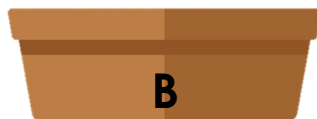
DP

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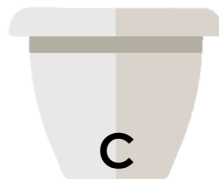
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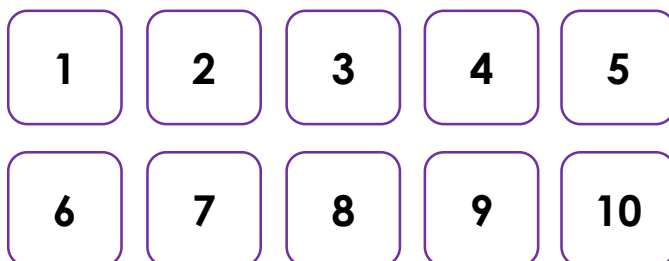
Various answers, for example: Pot C could use $\frac{3}{5}$ as $1\frac{3}{4} - \frac{3}{5} = 1\frac{3}{20}$.

DP

2. Explore the different ways to arrange the digit cards to make the statement true if no denominator is the same.

Various answers, for example:

$$1\frac{9}{10} - \frac{2}{5} > 1\frac{5}{8} - \frac{1}{4}$$



DP