

Discussion Problems

Step 6: Add 2 or More Fractions

National Curriculum Objectives:

Mathematics Year 4: (4F4) [Add and subtract fractions with the same denominator](#)

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 4 Fractions](#) resources.

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

Add 2 or More Fractions

1. Alexia the artist has made a painting for an art gallery. She has some paint left over and wants to make a painting for her mum. The canvas will need at least 7 bottles of paint.



I have different amounts of each colour left. I want to use a mixture of a least 2 colours.

$\frac{14}{4}$ bottles

$\frac{7}{2}$ bottles

$\frac{25}{15}$ bottles

$\frac{12}{18}$ bottles

$\frac{13}{6}$ bottles

$\frac{4}{16}$ bottles

$\frac{44}{24}$ bottles

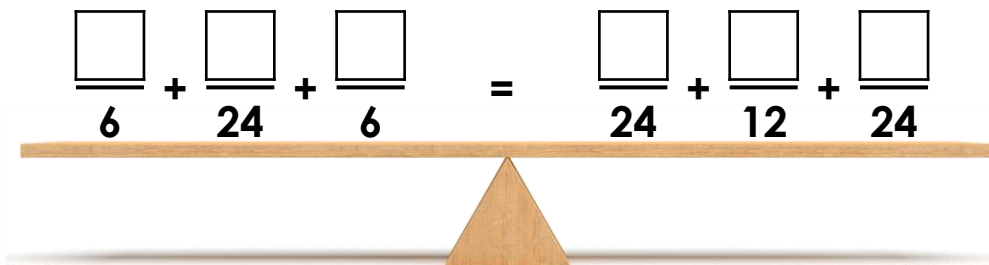
$\frac{6}{8}$ bottles

$\frac{35}{30}$ bottles

Explore the combinations of colours that Alexia could use to complete her painting.

DP

2. Daniel is trying to make the scales below balance by filling in the missing numerators.



Rules

1. Both calculations need to be equal to make the scale balance.
2. There are at least three improper fractions across the two calculations.
3. The answer is an improper fraction that is not a whole number.

Help Daniel to investigate the possible numerators to balance the scale.

DP

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$\frac{6}{8}$ bottles

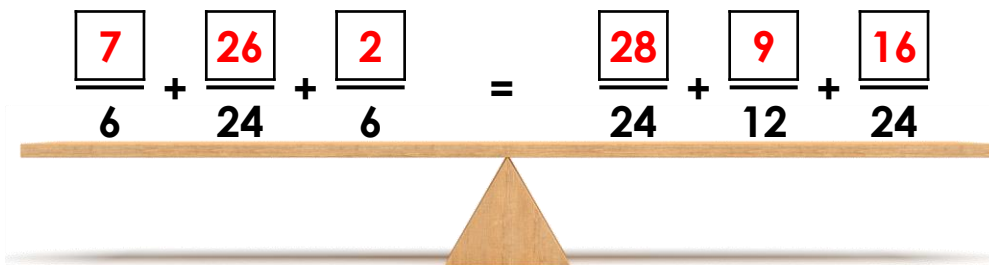
$\frac{35}{30}$ bottles

Explore the combinations of colours that Alexia could use to complete her painting.

Various answers, for example: $\frac{13}{6} + \frac{44}{24} + \frac{25}{15} + \frac{12}{18} + \frac{35}{30} = \frac{45}{6}$ bottles

DP

2. Daniel is trying to make the scales below balance by filling in the missing numerators.



Rules

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3. The answer is an improper fraction that is not a whole number.

Help Daniel to investigate the possible numerators to balance the scale.

Various answers, one example shown above.

DP