

Discussion Problems

Step 9: Add 3 or More Fractions

National Curriculum Objectives:

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.

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Add 3 or More Fractions

1. The Blue Wizard is creating a potion to make people laugh uncontrollably. Altogether he is creating one whole cauldron. The ingredients are added in fractions that all have different denominators.



The fraction of frog slime needed is equivalent to another ingredient.



Frog Slime



Giggle Juice



Unicorn Blood

The potion needs more giggle juice than unicorn blood.

Investigate the fractions that make up the whole cauldron.

DP

2. Trixter Quinn has stolen the queen's jewellery and has hidden it across the realm. Lady Arwen has been sent on a quest to retrieve the jewellery. She needs your help to choose her route. Follow the path that adds up to a fraction that is equivalent to $\frac{3}{4}$.



Start

$$\frac{1}{8}$$

$$\frac{1}{2}$$

$$\frac{6}{16}$$



$$\frac{1}{4}$$

$$\frac{2}{8}$$



$$\frac{1}{6}$$

$$\frac{1}{3}$$

$$\frac{2}{16}$$



$$\frac{5}{20}$$



Explore the different routes Lady Arwen can take.

DP

Add 3 or More Fractions

1. The Blue Wizard is creating a potion to make people laugh uncontrollably. Altogether he is creating one whole cauldron. The ingredients are added in fractions that all have different denominators.



The fraction of frog slime needed is equivalent to another ingredient.

The potion needs more giggle juice than unicorn blood.



Frog Slime



Giggle Juice



Unicorn Blood

Investigate the fractions that make up the whole cauldron.

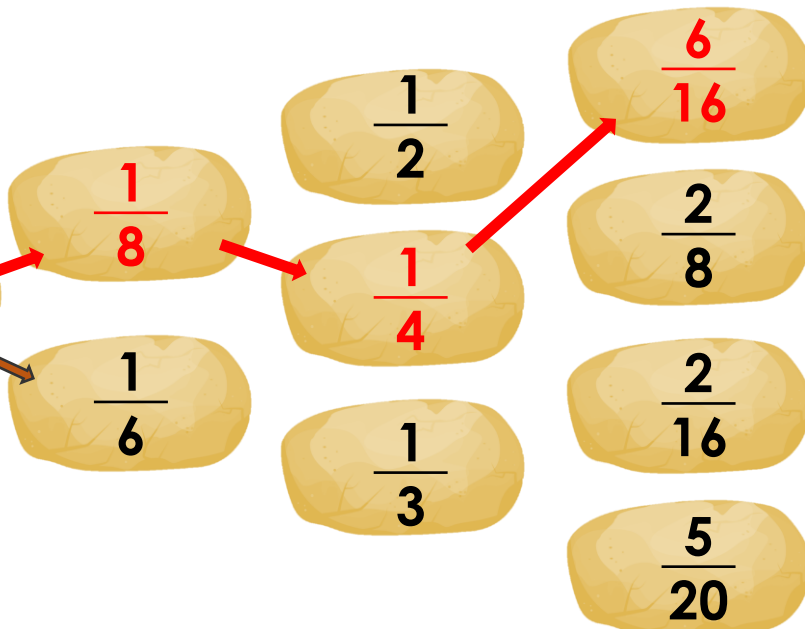
Various answers, for example: $\frac{1}{4}$ Frog Slime, $\frac{3}{6}$ Giggle Juice, $\frac{2}{8}$ Unicorn Blood.

DP

2. Trixter Quinn has stolen the queen's jewellery and has hidden it across the realm. Lady Arwen has been sent on a quest to retrieve the jewellery. She needs your help to choose her route. Follow the path that adds up to a fraction that is equivalent to $\frac{3}{4}$.



Start



Explore the different routes Lady Arwen can take.

Various answers, for example $\frac{1}{8} + \frac{1}{4} + \frac{6}{16} = \frac{3}{4}$.

DP