

Discussion Problems

Step 12: Subtract 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.

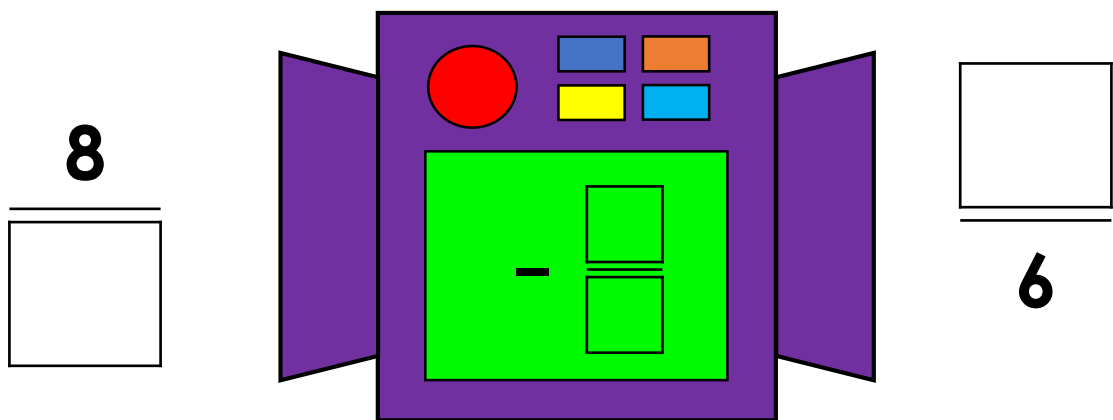
We recommend self or peer marking using the answer page provided to promote discussion and self-correction.

More [Year 5 Fractions](#) resources.

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

Subtract Fractions

1. Explore the possible inputs, outputs and functions of the 'Fraction Subtraction Contraption'. All the denominators are different.



DP

2. Play the game with a partner. You need a different coloured pencil each. Choose two fractions to subtract. If the answer is less than one half, shade both boxes. The first person to travel from one side of the board (in any direction) to the other is the winner. You cannot choose fractions with the same denominator.

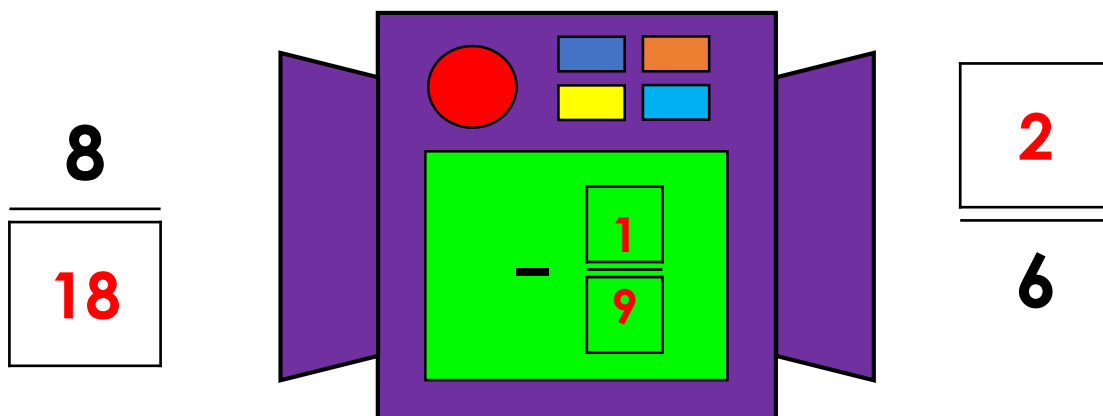
$\frac{9}{12}$	$\frac{5}{16}$	$\frac{3}{5}$	$\frac{4}{6}$	$\frac{2}{3}$
$\frac{8}{10}$	$\frac{7}{9}$	$\frac{11}{8}$	$\frac{3}{4}$	$\frac{15}{12}$
$\frac{5}{6}$	$\frac{4}{5}$	$\frac{15}{9}$	$\frac{5}{8}$	$\frac{9}{10}$
$\frac{14}{8}$	$\frac{20}{16}$	$\frac{1}{4}$	$\frac{2}{6}$	$\frac{14}{12}$
$\frac{7}{4}$	$\frac{12}{9}$	$\frac{17}{10}$	$\frac{5}{3}$	$\frac{8}{5}$

DP

Subtract Fractions

1. Explore the possible inputs, outputs and functions of the 'Fraction Subtraction Contraption'. All the denominators are different.

Various answers, for example:



DP

2. Play the game with a partner. You need a different coloured pencil each. Choose two fractions to subtract. If the answer is less than one half, shade both boxes. The first person to travel from one side of the board (in any direction) to the other is the winner. You cannot choose fractions with the same denominator.

Various answers, for example, one player might make the following moves:

$\frac{9}{12}$	$\frac{5}{16}$	$\frac{3}{5}$	$\frac{4}{6}$	$\frac{2}{3}$
$\frac{8}{10}$	$\frac{7}{9}$	$\frac{11}{8}$	$\frac{3}{4}$	$\frac{15}{12}$
$\frac{5}{6}$	$\frac{4}{5}$	$\frac{15}{9}$	$\frac{5}{8}$	$\frac{9}{10}$
$\frac{14}{8}$	$\frac{20}{16}$	$\frac{1}{4}$	$\frac{2}{6}$	$\frac{14}{12}$
$\frac{7}{4}$	$\frac{12}{9}$	$\frac{17}{10}$	$\frac{5}{3}$	$\frac{8}{5}$

$$\frac{4}{6} - \frac{3}{4} = \frac{1}{12}$$

$$\frac{5}{8} - \frac{2}{6} = \frac{7}{24}$$

$$\frac{7}{9} - \frac{5}{6} = \frac{1}{18}$$

$$\frac{5}{3} - \frac{8}{5} = \frac{1}{15}$$

DP