

Discussion Problems

Step 14: Subtract Mixed Numbers 2

National Curriculum Objectives:

Mathematics Year 5: (5F2b) [Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths](#)

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 2

1. Scrumptious Sweet Treats factory is busy making batches of their best-selling sweets. They have $2\frac{1}{5}$ sacks of sugar but they need at least $1\frac{1}{2}$ sacks left for the following day.



Blueberry Bonanzas

The fraction of sugar needed has a denominator that is a multiple of 4. It is greater than a quarter.



Tangy Twizzlers

The fraction of sugar needed has a single digit denominator and an even numerator.



Strawberry Swirls

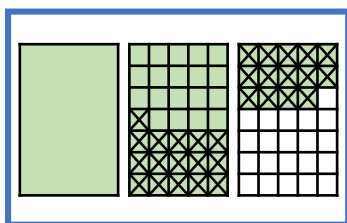
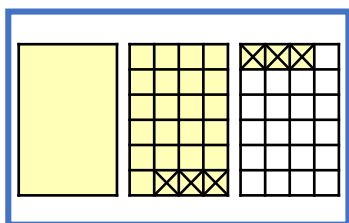
The fraction of sugar needed has a denominator that is a multiple of 3 and greater than 3. The numerator is odd.



Use flexible partitioning and the clues to work out which sweets they can make a batch of today. They can make any combination of batches.

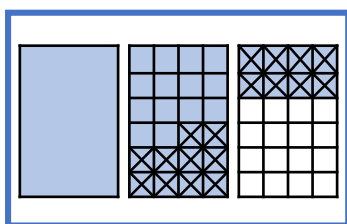
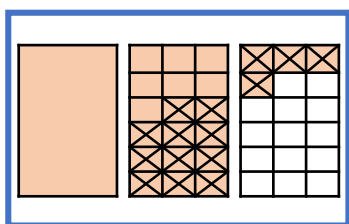
DP

2. Cut the cards out and lay them face down. Take it in turns to choose a pair. If you choose a representation of flexible partitioning that matches the calculation, solve the calculation. If you get the calculation correct, keep the pair. The winner is the player with the most cards at the end.



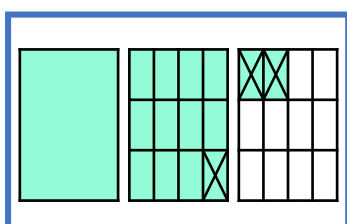
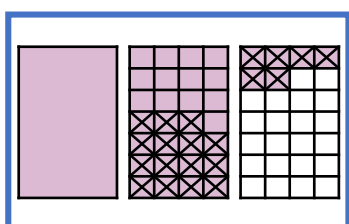
$$2\frac{2}{6} - \frac{6}{8}$$

$$2\frac{2}{5} - \frac{6}{7}$$



$$2\frac{1}{8} - \frac{3}{12}$$

$$2\frac{1}{6} - \frac{1}{4}$$



$$2\frac{3}{14} - \frac{3}{4}$$

$$2\frac{2}{9} - \frac{5}{6}$$

DP

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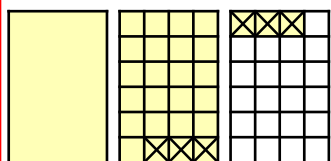
Use flexible partitioning and the clues to work out which sweets they can make a batch of today. They can make any combination of batches.

Various answers, for example: Strawberry Swirls = $\frac{3}{9}$ and Tangy Twizzlers $\frac{2}{6}$.

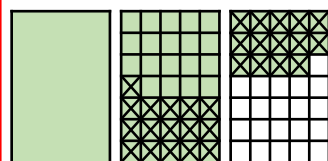
$$2\frac{1}{5} - \frac{3}{9} = 1\frac{13}{15} \quad 1\frac{13}{15} - \frac{2}{6} = 1\frac{8}{15}$$

DP

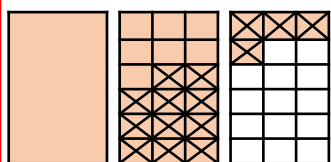
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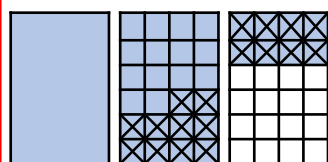
$$2\frac{1}{8} - \frac{3}{12} = 1\frac{7}{8}$$



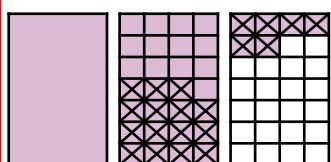
$$2\frac{2}{5} - \frac{6}{7} = 1\frac{19}{35}$$



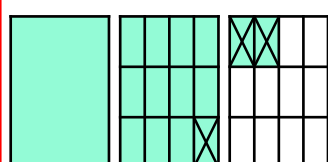
$$2\frac{2}{9} - \frac{5}{6} = 1\frac{7}{18}$$



$$2\frac{2}{6} - \frac{6}{8} = 1\frac{7}{12}$$



$$2\frac{3}{14} - \frac{3}{4} = 1\frac{13}{28}$$



$$2\frac{1}{6} - \frac{1}{4} = 1\frac{11}{12}$$

DP