## Reasoning and Problem Solving Step 6: Add and Subtract Fractions 2

## National Curriculum Objectives:

Mathematics Year 6: (6F2) Use common factors to simplify fractions; use common multiples to express fractions in the same denomination
Mathematics Year 6: (6F4) Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions
Mathematics Year 6: (6F11) Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts

## Differentiation:

Questions 1, 4 and 7 (Problem Solving)
Developing Use given digit cards to complete a calculation involving fractions where the denominators are direct multiples of the same number. Pictorial support provided.
Expected Use given digit cards to complete a calculation involving fractions where denominators may not be direct multiples of the same number.
Greater Depth Use given digit cards to complete a calculation involving fractions. Includes mixed numbers where denominators are not direct multiples of the same number, simplifying answers where possible.

Questions 2, 5 and 8 (Reasoning)
Developing Identify and explain the odd one out of 3 different calculations where the denominators are not always direct multiples of the same number. Pictorial support provided. Expected Identify and explain the odd one out of 3 different calculations where denominators are not direct multiples of the same number.
Greater Depth Identify and explain the odd one out of 3 different calculations. Includes mixed numbers where denominators are not direct multiples of the same number, simplifying answers where possible.

Questions 3, 6 and 9 (Problem Solving)
Developing Select from a choice of fractions and symbols to create a calculation with a given answer where the denominators are direct multiples of the same number. Pictorial support provided.
Expected Select from a choice of fractions and symbols to create a calculation with a given answer where denominators are not direct multiples of the same number.
Greater Depth Select from a choice of fractions and symbols to create a calculation with a given answer. Includes mixed numbers where denominators are not direct multiples of the same number, simplifying answers where possible.

## More Year 6 Fractions resources.

Did you like this resource? Don't forget to review it on our website.

## Add and Subtract Fractions 2 Add and Subtract Fractions 2

1a. Use the digit cards to complete the calculation.


2a. Which calculation is the odd one out?
A. $\frac{3}{4}-\frac{2}{8}$

B. $\frac{2}{8}+\frac{1}{4}$

C. $\frac{2}{3}-\frac{5}{8}$


Explain how you know.

3a. The target fraction is shown below.


Use the fractions and symbols to create a calculation that equals the target fraction.


1b. Use the digit cards to complete the calculation.


2b. Which calculation is the odd one out?
A.
$\frac{1}{8}+\frac{3}{4}$

B. $\frac{1}{3}+\frac{2}{9}$

C. $\frac{8}{9}-\frac{2}{6}$


Explain how you know.

3b. The target fraction is shown below.


Use the fractions and symbols to create a calculation that equals the target fraction.


## Add and Subtract Fractions 2 Add and Subtract Fractions 2

4a. Use the digit cards to complete the calculation.


Is there more than one possibility?

4b. Use the digit cards to complete the calculation.


$$
\frac{\square}{4}+\frac{5}{\square}=\frac{19}{12}=1 \frac{\square}{12}
$$

Is there more than one possibility?

5b. Which calculation is the odd one out?
A. $\frac{4}{5}-\frac{8}{12}$
B. $\frac{2}{3}+\frac{1}{7}$
C. $\frac{4}{5}-\frac{2}{3}$

Explain how you know.

6a. The target fraction is shown below.


Use the fractions and symbols to create a calculation that equals the target fraction.


6b. The target fraction is shown below.

$$
\frac{13}{15}
$$

Use the fractions and symbols to create a calculation that equals the target fraction.


## Add and Subtract Fractions 2 Add and Subtract Fractions 2

7a. Use the digit cards to complete the calculation.



Is there more than one possibility?

7b. Use the digit cards to complete the calculation.


Is there more than one possibility?

8a. Which calculation is the odd one out?
A. $\frac{6}{8}-\frac{1}{5}$
B. $\quad \frac{2}{9}+\frac{3}{4}$
C. $\frac{3}{10}+\frac{1}{4}$

Explain how you know.

8b. Which calculation is the odd one out?
A.
$\frac{3}{5}+\frac{2}{8}$
B. $\quad \frac{3}{12}+\frac{4}{5}$
C. $\frac{6}{8}-\frac{2}{7}$

Explain how you know.

9a. The target fraction is shown below.


Use the fractions and symbols to create a calculation that equals the target fraction.


9b. The target fraction is shown below.


Use the fractions and symbols to create a calculation that equals the target fraction.


## Reasoning and Problem Solving

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## Developing

1b. $\frac{1}{5}+\frac{3}{15}=\frac{6}{15}$
2b. $A=\frac{7}{8} ; B=\frac{5}{9} ; C=\frac{5}{9}$
A is the odd one out as it is the only calculation where the answer does not equal $\frac{5}{9}$.
3b. $\frac{3}{4}-\frac{2}{8}$

## Expected

4b. $\frac{3}{4}+\frac{5}{6}=\frac{19}{12}=1 \frac{7}{12}$
5b. $A=\frac{2}{15} ; B=\frac{17}{21} ; C=\frac{2}{15}$
$B$ is the odd one out because it is the only calculation where the answer does not equal $\frac{2}{15}$
6b. $\frac{7}{10}+\frac{1}{6}$

## Greater Depth

7b. $\frac{8}{10}-\frac{4}{6}=\frac{2}{15}$
8b. $A=\frac{17}{20} ; B=\frac{21}{20}$ or $1 \frac{1}{20} ; C=\frac{13}{28}$
$B$ is the odd one out because it is the only calculation where the answer is a mixed fraction.
9b. $\frac{20}{24}-\frac{3}{6}$

