

# Varied Fluency

## Step 11: Add Mixed Numbers

### National Curriculum Objectives:

Mathematics Year 5: (5F2a) [Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements  \$> 1\$  as a mixed number \[for example,  \$2/5 + 4/5 = 6/5 = 1 \frac{1}{5}\$ \]](#)

Mathematics Year 5: (5F4) [Add and subtract fractions with the same denominator and denominators that are multiples of the same number](#)

### Differentiation:

**Developing** Questions to support adding mixed numbers where the denominators are the same or halves or doubles of each other.

**Expected** Questions to support adding fractions greater than 1 to a mixed number where the denominators are direct multiples. Answers to be recorded in their simplest form.

**Greater Depth** Questions to support adding fractions greater than 1 to a mixed number where the denominators are not direct multiples of each other. Answers to be recorded in their simplest form.

More [Year 5 Fractions](#) resources.

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

## Add Mixed Numbers

1a. Add the two fractions together.

$$1 \frac{1}{3} + 1 \frac{1}{3} = \boxed{\phantom{00}} \frac{\boxed{\phantom{00}}}{\boxed{\phantom{00}}}$$



VF

## Add Mixed Numbers

1b. Add the two fractions together.

$$3 \frac{2}{4} + 1 \frac{1}{4} = \boxed{\phantom{00}} \frac{\boxed{\phantom{00}}}{\boxed{\phantom{00}}}$$



VF

2a. Circle the correct answer to the calculation below.

$$1 \frac{3}{10} + 1 \frac{2}{5} = ?$$

A.  $2 \frac{1}{10}$       B.  $2 \frac{7}{10}$       C.  $2 \frac{5}{10}$



VF

2b. Circle the correct answer to the calculation below.

$$2 \frac{3}{7} + 1 \frac{5}{14} = ?$$

A.  $3 \frac{6}{7}$       B.  $3 \frac{7}{14}$       C.  $3 \frac{11}{14}$



VF

3a. Work out the missing numbers in the following calculation.

$$1 \frac{1}{4} + 2 \frac{5}{8} = 3 \frac{\text{blue}}{8}$$



VF

3b. Work out the missing numbers in the following calculation.

$$2 \frac{2}{8} + 1 \frac{\text{grey}}{12} = 3 \frac{11}{12}$$



VF

4a. Match the calculations to the correct answers.

A.  $1 \frac{2}{3} + 5 \frac{4}{6}$

$$7 \frac{1}{6}$$

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

B.  $2 \frac{1}{3} + 4 \frac{5}{6}$

$$7 \frac{3}{6}$$



VF

4b. Match the calculations to the correct answers.

A.  $2 \frac{3}{8} + 2 \frac{13}{16}$

$$5 \frac{2}{16}$$

$$5 \frac{1}{16}$$

B.  $1 \frac{5}{8} + 3 \frac{7}{16}$

$$5 \frac{3}{16}$$



VF

## Add Mixed Numbers

5a. Add the two fractions together. Give your answer in its simplest form.

$$2 \frac{3}{4} + \frac{12}{8} = \begin{array}{|c|c|} \hline \square & \square \\ \hline \hline \square & \square \\ \hline \end{array}$$



VF

## Add Mixed Numbers

5b. Add the two fractions together. Give your answer in its simplest form.

$$3 \frac{4}{6} + \frac{18}{12} = \begin{array}{|c|c|} \hline \square & \square \\ \hline \hline \square & \square \\ \hline \end{array}$$



VF

6a. Circle the correct answer to the calculation below.

$$4 \frac{2}{3} + \frac{14}{12} = ?$$

A.  $6 \frac{1}{6}$       B. 6      C.  $5 \frac{5}{6}$



VF

6b. Circle the correct answer to the calculation below.

$$5 \frac{3}{5} + \frac{19}{15} = ?$$

A.  $6 \frac{13}{15}$       B.  $6 \frac{7}{15}$       C.  $5 \frac{22}{15}$



VF

7a. Work out the missing numbers in the following calculation.

$$6 \frac{1}{4} + 2 \frac{5}{\text{red splat}} = 8 \frac{\text{green splat}}{16}$$



VF

7b. Work out the missing numbers in the following calculation.

$$2 \frac{1}{\text{yellow splat}} + 1 \frac{\text{blue splat}}{4} = 3 \frac{7}{8}$$



VF

8a. Match the calculations to the correct answers.

A.  $3 \frac{4}{5} + 2 \frac{4}{15}$

$6 \frac{1}{15}$

$6 \frac{2}{15}$

B.  $2 \frac{3}{5} + 3 \frac{8}{15}$

$6 \frac{3}{15}$



VF

8b. Match the calculations to the correct answers.

A.  $1 \frac{1}{3} + 5 \frac{8}{9}$

$7 \frac{5}{9}$

$7 \frac{1}{9}$

B.  $4 \frac{2}{3} + 2 \frac{4}{9}$

$7 \frac{2}{9}$



VF

## Add Mixed Numbers

9a. Add the two fractions together. Give your answer in its simplest form.

$$2 \frac{1}{4} + \frac{15}{6} = \begin{array}{|c|c|} \hline \square & \square \\ \hline \hline \square & \square \\ \hline \end{array}$$



VF

## Add Mixed Numbers

9b. Add the two fractions together. Give your answer in its simplest form.

$$3 \frac{1}{3} + \frac{15}{10} = \begin{array}{|c|c|} \hline \square & \square \\ \hline \hline \square & \square \\ \hline \end{array}$$



VF

10a. Circle the correct answer to the calculation below.

$$4 \frac{5}{10} + \frac{13}{6} = ?$$

A.  $6 \frac{2}{3}$       B.  $4 \frac{18}{10}$       C.  $7 \frac{6}{10}$



VF

10b. Circle the correct answer to the calculation below.

$$2 \frac{3}{12} + \frac{12}{8} = ?$$

A.  $5 \frac{12}{8}$       B.  $3 \frac{3}{4}$       C.  $4 \frac{3}{4}$



VF

11a. Work out the missing numbers in the following calculation.

$$7 \frac{1}{\text{green}} + 1 \frac{7}{8} = 9 \frac{\text{orange}}{24}$$

All the denominators are different.



VF

11b. Work out the missing numbers in the following calculation.

$$4 \frac{10}{\text{yellow}} + 2 \frac{3}{9} = 7 \frac{\text{blue}}{6}$$

All the denominators are different.



VF

12a. Match the calculations to the correct answers.

A.  $1 \frac{2}{5} + 4 \frac{5}{6}$

$$7 \frac{2}{15}$$

$$6 \frac{7}{30}$$

B.  $4 \frac{4}{5} + 2 \frac{2}{6}$

$$6 \frac{14}{15}$$



VF

12b. Match the calculations to the correct answers.

A.  $1 \frac{1}{4} + 4 \frac{3}{7}$

$$5 \frac{4}{7}$$

$$4 \frac{25}{28}$$

B.  $3 \frac{3}{4} + 1 \frac{1}{7}$

$$5 \frac{19}{28}$$



VF

## Varied Fluency Add Mixed Numbers

### Developing

1a.  $2\frac{2}{3}$

2a. **B**

3a.  $1\frac{1}{4} + 2\frac{5}{8} = 3\frac{7}{8}$

4a. **A.**  $7\frac{2}{6}$  ; **B.**  $7\frac{1}{6}$

### Expected

5a.  $4\frac{1}{4}$

6a. **C**

7a.  $6\frac{1}{4} + 2\frac{5}{16} = 8\frac{9}{16}$

8a. **A.**  $6\frac{1}{15}$  ; **B.**  $6\frac{2}{15}$

### Greater Depth

9a.  $4\frac{3}{4}$

10a. **A**

11a.  $7\frac{1}{3} + 1\frac{7}{8} = 9\frac{5}{24}$  **or**  $7\frac{1}{6} + 1\frac{7}{8} = 9\frac{1}{24}$

12a. **A.**  $6\frac{7}{30}$  ; **B.**  $7\frac{4}{30}$

## Varied Fluency Add Mixed Numbers

### Developing

1b.  $4\frac{3}{4}$

2b. **C**

3b.  $2\frac{2}{6} + 1\frac{7}{12} = 3\frac{11}{12}$  **or**  $2\frac{2}{12} + 1\frac{9}{12} = 3\frac{11}{12}$

4b. **A.**  $5\frac{3}{16}$  ; **B.**  $5\frac{1}{16}$

### Expected

5b.  $5\frac{1}{6}$

6b. **A**

7b.  $2\frac{1}{8} + 1\frac{3}{4} = 3\frac{7}{8}$

8b. **A.**  $7\frac{2}{9}$  ; **B.**  $7\frac{1}{9}$

### Greater Depth

9b.  $4\frac{5}{6}$

10b. **B**

11b.  $4\frac{10}{12} + 2\frac{3}{9} = 7\frac{1}{6}$

12b. **A.**  $5\frac{19}{28}$  ; **B.**  $4\frac{25}{28}$