

# 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 numbers where one is a mixed number or an improper fraction, using a common denominator. Includes pictorial support.

**Expected** Questions to support adding numbers where one or both are mixed numbers or an improper fraction, with some pictorial support. Denominators are direct multiples. Answers to be recorded in the simplest form.

**Greater Depth** Questions to support adding mixed numbers and improper fractions, where the denominators have a common factor. Answers to be recorded in the 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.

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

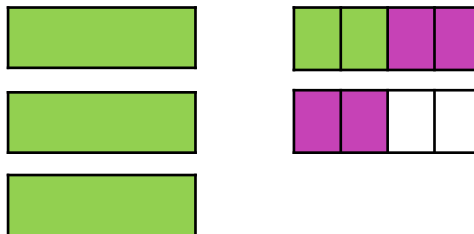


VF

## Add Mixed Numbers

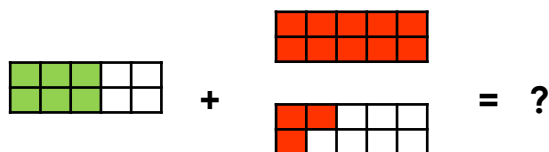
1b. Add the two fractions together.

$$\frac{14}{4} + \frac{4}{4} = \begin{array}{|c|c|} \hline & \\ \hline & \\ \hline \end{array}$$



VF

2a. Match the calculation to the correct answer.

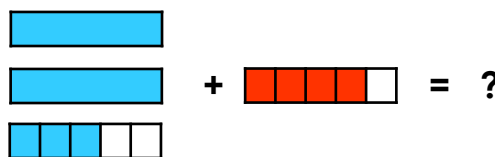


- a.  $1 \frac{8}{10}$       b.  $\frac{19}{10}$       c.  $2 \frac{9}{10}$



VF

2b. Match the calculation to the correct answer.



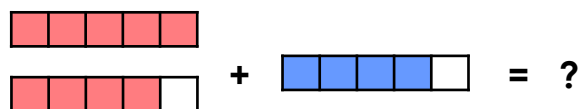
- a.  $2 \frac{8}{5}$       b.  $5 \frac{4}{5}$       c.  $3 \frac{2}{5}$



VF

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

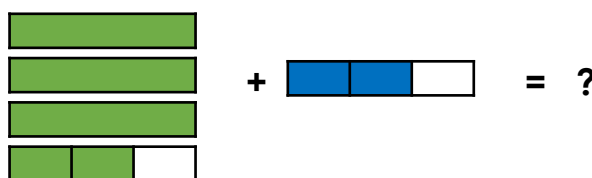
$$\begin{array}{c} 9 \\ \text{🌿} \end{array} + \begin{array}{c} \text{🌿} \\ 5 \end{array} = \begin{array}{c} \text{🌿} \\ 5 \end{array}$$



VF

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

$$3 \begin{array}{c} \text{🌿} \\ 3 \end{array} + \begin{array}{c} 2 \\ \text{🌿} \end{array} = 4 \begin{array}{c} \text{🌿} \\ 3 \end{array}$$



VF

## Add Mixed Numbers

4a. Add the two fractions together making sure your answer is in its simplest form.

$$2 \frac{3}{4} + \frac{9}{8} = \begin{array}{|c|} \hline \square \\ \hline \square \\ \hline \end{array}$$



VF

## Add Mixed Numbers

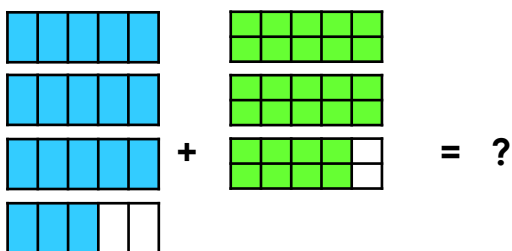
4b. Add the two fractions together making sure your answer is in its simplest form.

$$3 \frac{4}{6} + \frac{11}{3} = \begin{array}{|c|} \hline \square \\ \hline \square \\ \hline \end{array}$$



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5a. Match the area model to the correct answer.

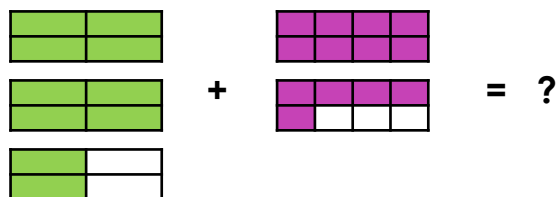


- a.  $6 \frac{10}{5}$       b. 6      c.  $6 \frac{2}{5}$



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5b. Match the area model to the correct answer.



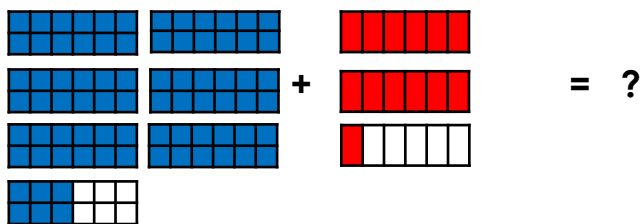
- a.  $1 \frac{4}{8}$       b.  $4 \frac{1}{8}$       c.  $2 \frac{11}{8}$



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6a. Work out the missing numbers in the following calculation.

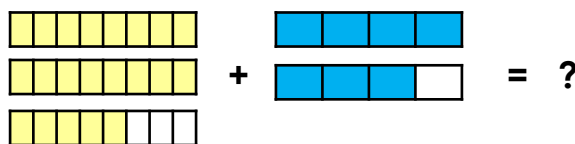
$$6 \frac{6}{12} + \frac{13}{12} = 8 \frac{\text{red virus}}{12}$$



VF

6b. Work out the missing numbers in the following calculation.

$$2 \frac{5}{4} + \frac{\text{red virus}}{4} = 4 \frac{3}{8}$$



VF

## Add Mixed Numbers

7a. Add the two fractions together making sure your answer is in its simplest form.

$$4 \frac{5}{6} + \frac{15}{10} = \begin{array}{|c|c|} \hline \square & \square \\ \hline \square & \square \\ \hline \end{array}$$



VF

## Add Mixed Numbers

7b. Add the two fractions together making sure your answer is in its simplest form.

$$2 \frac{4}{8} + \frac{13}{6} = \begin{array}{|c|c|} \hline \square & \square \\ \hline \square & \square \\ \hline \end{array}$$



VF

8a. Match the calculation to the correct answer.

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

a.  $4 \frac{18}{10}$

b.  $6 \frac{2}{3}$

c.  $7 \frac{6}{10}$



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8b. Match the calculation to the correct answer.

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

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

b.  $5 \frac{12}{8}$

c.  $2 \frac{15}{8}$



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9a. Work out the missing numbers in the following calculation.

$$7 \frac{1}{8} + \frac{15}{8} = 9 \frac{1}{8}$$



VF

9b. Work out the missing numbers in the following calculation.

$$4 \frac{5}{6} + \frac{21}{6} = 7 \frac{1}{6}$$



VF

## Varied Fluency Add Mixed Numbers

### Developing

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

2a. b.  $\frac{19}{10}$

3a.  $\frac{9}{5} + \frac{4}{5} = \frac{13}{5}$

### Expected

4a.  $3 \frac{7}{8}$

5a. c.  $6 \frac{2}{5}$

6a.  $6 \frac{6}{12} + \frac{13}{6} = 8 \frac{2}{3}$

### Greater Depth

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

8a. b.  $6 \frac{2}{3}$

9a.  $7 \frac{1}{2} + \frac{15}{8} = 9 \frac{3}{8}$

or  $7 \frac{1}{4} + \frac{15}{8} = 9 \frac{1}{8}$

## Varied Fluency Add Mixed Numbers

### Developing

1b.  $4 \frac{2}{4}$

2b. c.  $3 \frac{2}{5}$

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

### Expected

4b.  $7 \frac{1}{3}$

5b. b.  $4 \frac{1}{8}$

6b.  $2 \frac{5}{8} + \frac{7}{4} = 4 \frac{3}{8}$

### Greater Depth

7b.  $4 \frac{2}{3}$

8b. a.  $3 \frac{3}{4}$

9b.  $4 \frac{5}{6} + \frac{21}{9} = 7 \frac{1}{6}$