# 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 Ifor example, 2/5 + 4/5 = 6/5 = 1 1/51

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**

## **Add Mixed Numbers**

1a. Add the two fractions together.

$$1\frac{1}{3} + 1\frac{1}{3} =$$

1b. Add the two fractions together.

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



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.  $2\frac{5}{10}$

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.  $3\frac{11}{14}$



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

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

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

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



4a. Match the calculations to the correct answers.

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

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

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

4b. Match the calculations to the correct answers.

$$7\frac{1}{6}$$
 A.  $2\frac{3}{8} + 2\frac{13}{16}$ 

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

$$7\frac{3}{6}$$
 B.  $1\frac{5}{8} + 3\frac{7}{16}$ 

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





# **Add Mixed Numbers**

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

$$2\frac{3}{4} + \frac{12}{8} =$$

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

$$3\frac{4}{6}+\frac{18}{12}=$$



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

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

A. 6 
$$\frac{1}{6}$$

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

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

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

A. 6 
$$\frac{13}{15}$$

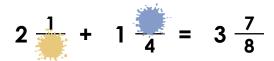
A.  $6\frac{13}{15}$  B.  $6\frac{7}{15}$  C.  $5\frac{22}{15}$ 



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

 $6\frac{1}{4} + 2\frac{5}{16} = 8\frac{1}{16}$ 

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







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

8b. Match the calculations to the correct answers.

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

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

$$7\frac{2}{9}$$

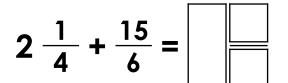




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9a. Add the two fractions together. Give your answer in its simplest form.



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

$$3\frac{1}{3}+\frac{15}{10}=$$



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

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



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

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

All the denominators are different.

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

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

All the denominators are different.



12a. Match the calculations to the correct answers.

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

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

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

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

12b. Match the calculations to the correct answers.

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

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

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

 $5\frac{19}{28}$ 





#### **Varied Fluency Add Mixed Numbers**

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#### **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  $7\frac{1}{6} + 1\frac{7}{8} = 9\frac{1}{24}$  11b.  $4\frac{10}{12} + 2\frac{3}{9} = 7\frac{1}{6}$ 

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

#### **Developing**

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

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**

10b. B

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

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