Varied Fluency
Step 10: Add Fractions

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 1/5]
Mathematics Year 5: (5F4) Add and subtract fractions with the same denominator and denominators that are multiples of the same number

Differentiation:

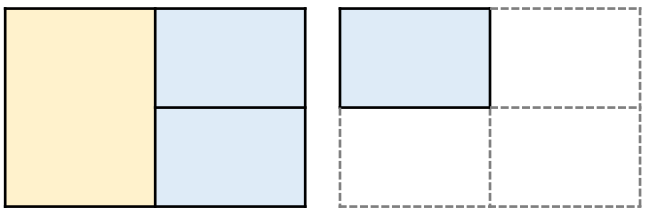
Developing Questions to support adding 2 fractions with sums greater than 1 where the denominators are the same, halves or doubles of each other.
Expected Questions to support adding 3 fractions with sums greater than 1 where the denominators are all direct multiples of each other.
Greater Depth Questions to support adding 3 fractions with sums greater than 1 where the denominators are not all direct multiples of each other. The lowest common denominator is not provided in the question.

More Year 5 Fractions resources.

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

Add Fractions

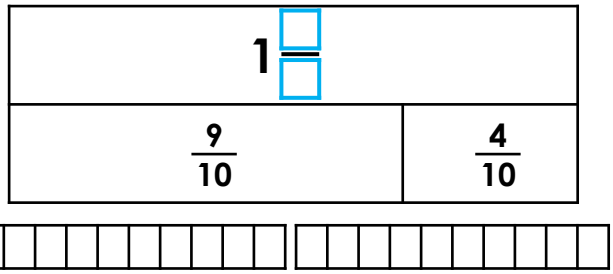
1a. Complete the calculation shown in the model below.



$\square\frac{\square}{\square} + \square\frac{\square}{\square} = \square\frac{\square}{\square} = \square\frac{\square}{\square}$

D VF

2a. Complete the bar model.



D VF

3a. Solve the following calculations.

A. $\frac{7}{10} + \frac{19}{20} = \square\frac{\square}{\square}$

B. $\frac{5}{18} + \frac{7}{9} = \square\frac{\square}{\square}$

D VF

4a. Which calculation is incorrect?

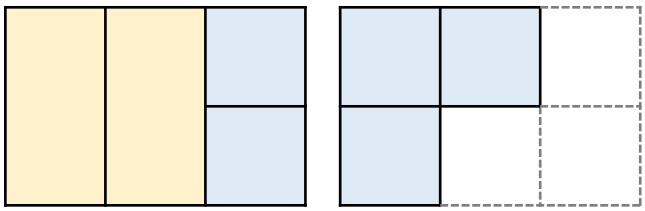
A. $\frac{11}{12} + \frac{5}{6} = 1\frac{16}{12}$

B. $\frac{9}{11} + \frac{15}{22} = 1\frac{1}{2}$

D VF

Add Fractions

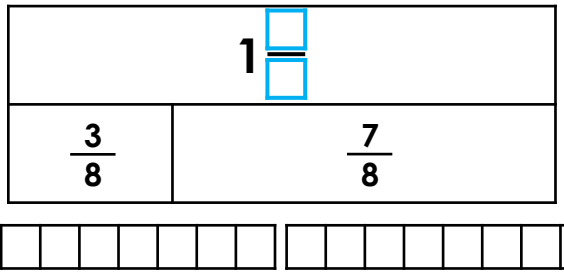
1b. Complete the calculation shown in the model below.



$\square\frac{\square}{\square} + \square\frac{\square}{\square} = \square\frac{\square}{\square} = \square\frac{\square}{\square}$

D VF

2b. Complete the bar model.



D VF

3b. Solve the following calculations.

A. $\frac{3}{4} + \frac{5}{8} = \square\frac{\square}{\square}$

B. $\frac{13}{16} + \frac{7}{8} = \square\frac{\square}{\square}$

D VF

4b. Which calculation is incorrect?

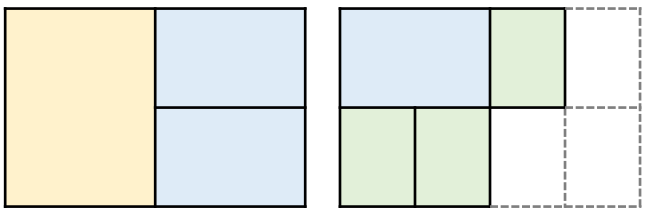
A. $\frac{8}{14} + \frac{5}{7} = 1\frac{4}{14}$

B. $\frac{4}{5} + \frac{3}{5} = \frac{7}{10}$

D VF

Add Fractions

5a. Complete the calculation shown in the model below.



$\square\frac{\square}{\square} + \square\frac{\square}{\square} + \square\frac{\square}{\square} = \square\frac{\square}{\square}$

VF

6a. Complete the bar model.

$1\frac{\square}{\square}$		
$\frac{4}{5}$	$\frac{8}{10}$	$\frac{2}{20}$

VF

7a. Solve the following calculations.

A. $\frac{3}{6} + \frac{2}{3} + \frac{7}{12} = \square\frac{\square}{\square}$

B. $\frac{8}{16} + \frac{5}{8} + \frac{3}{4} = \square\frac{\square}{\square}$

VF

8a. Which calculation is incorrect?

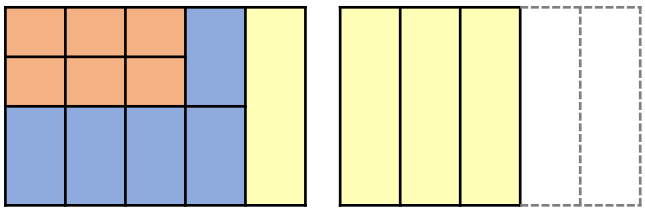
A. $\frac{4}{7} + \frac{12}{14} + \frac{9}{28} = 1\frac{3}{4}$

B. $\frac{5}{12} + \frac{5}{6} + \frac{25}{48} = 1\frac{1}{4}$

VF

Add Fractions

5b. Complete the calculation shown in the model below.



$\square\frac{\square}{\square} + \square\frac{\square}{\square} + \square\frac{\square}{\square} = \square\frac{\square}{\square}$

VF

6b. Complete the bar model.

$1\frac{\square}{\square}$		
$\frac{1}{5}$	$\frac{9}{30}$	$\frac{7}{10}$

VF

7b. Solve the following calculations.

A. $\frac{5}{7} + \frac{3}{14} + \frac{15}{28} = \square\frac{\square}{\square}$

B. $\frac{19}{36} + \frac{4}{9} + \frac{13}{18} = \square\frac{\square}{\square}$

VF

8b. Which calculation is incorrect?

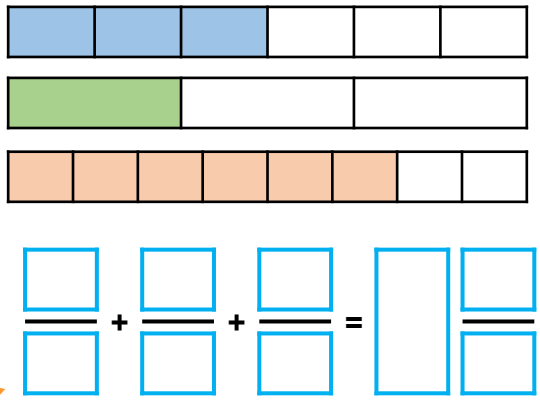
A. $\frac{3}{4} + \frac{9}{16} + \frac{6}{8} = 2\frac{1}{16}$

B. $\frac{7}{8} + \frac{17}{32} + \frac{9}{16} = 1\frac{1}{4}$

VF

Add Fractions

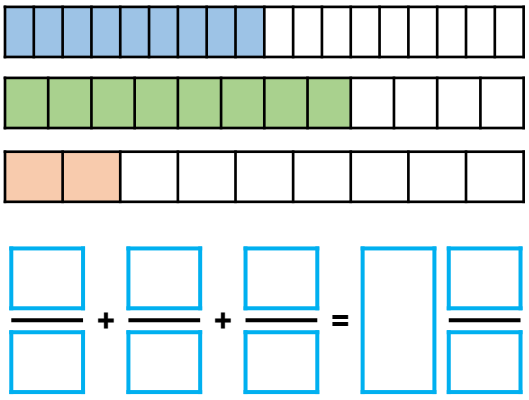
9a. Complete the calculation shown in the model below.



$\square\frac{\square}{\square} + \square\frac{\square}{\square} + \square\frac{\square}{\square} = \square\frac{\square}{\square}$

GD VF

9b. Complete the calculation shown in the model below.



$\square\frac{\square}{\square} + \square\frac{\square}{\square} + \square\frac{\square}{\square} = \square\frac{\square}{\square}$

GD VF

10a. Complete the bar model.

$1\frac{\square}{\square}$		
$\frac{2}{5}$	$\frac{6}{10}$	$\frac{3}{4}$

GD VF

10b. Complete the bar model.

$1\frac{\square}{\square}$		
$\frac{8}{10}$	$\frac{1}{3}$	$\frac{3}{15}$

GD VF

11a. Solve the following calculations.

A. $\frac{2}{3} + \frac{4}{6} + \frac{5}{9} = \square\frac{\square}{\square}$

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

GD VF

11b. Solve the following calculations.

A. $\frac{7}{12} + \frac{3}{18} + \frac{5}{6} = \square\frac{\square}{\square}$

B. $\frac{1}{2} + \frac{12}{22} + \frac{1}{4} = \square\frac{\square}{\square}$

GD VF

12a. Which calculation is incorrect?

A. $\frac{3}{4} + \frac{4}{14} + \frac{1}{2} = 1\frac{15}{28}$

B. $\frac{5}{6} + \frac{3}{8} + \frac{7}{12} = 1\frac{3}{12}$

GD VF

12b. Which calculation is incorrect?

A. $\frac{2}{3} + \frac{6}{7} + \frac{5}{7} = 1\frac{5}{21}$

B. $\frac{7}{12} + \frac{4}{5} + \frac{2}{10} = 1\frac{7}{12}$

GD VF

Varied Fluency
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Developing

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

2a. $1\frac{3}{10}$

3a. A = $1\frac{13}{20}$, B = $1\frac{1}{18}$

4a. A is incorrect. A = $1\frac{3}{4}$

Expected

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

6a. $1\frac{7}{10}$ or $1\frac{14}{20}$

7a. A = $1\frac{3}{4}$ or $1\frac{9}{12}$ B = $1\frac{7}{8}$ or $1\frac{14}{16}$

8a. B is incorrect. B = $1\frac{37}{48}$

Greater Depth

9a. $\frac{3}{6} + \frac{1}{3} + \frac{6}{8} = 1\frac{7}{12}$

10a. $1\frac{3}{4}$

11a. A = $1\frac{8}{9}$, B = $1\frac{7}{12}$

12a. B is incorrect. B = $1\frac{19}{24}$

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Developing

1b. $\frac{2}{3} + \frac{5}{6} = 1\frac{1}{2}$ or $1\frac{3}{6}$

2b. $1\frac{1}{4}$ or $1\frac{2}{8}$

3b. A = $1\frac{3}{8}$, B = $1\frac{11}{16}$

4b. B is incorrect. B = $1\frac{2}{5}$

Expected

5b. $\frac{6}{20} + \frac{5}{10} + \frac{4}{5} = 1\frac{3}{5}$ or $1\frac{12}{20}$

6b. $1\frac{1}{5}$ or $1\frac{6}{30}$

7b. A = $1\frac{13}{28}$, B = $1\frac{25}{36}$

8b. B is incorrect. B = $1\frac{31}{32}$

Greater Depth

9b. $\frac{9}{18} + \frac{8}{12} + \frac{2}{9} = 1\frac{7}{18}$

10b. $1\frac{1}{3}$

11b. A = $1\frac{7}{12}$, B = $1\frac{13}{44}$

12b. A is incorrect. A = $2\frac{5}{21}$