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. Denominators are the same or halves or doubles of each other.

Expected Questions to support adding 3 fractions with sums greater than 1. Denominators are multiples of the same number.
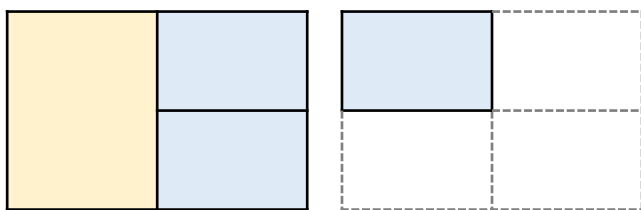
Greater Depth Questions to support adding 3 fractions with sums greater than 1. Denominators are not multiples of the same number but have common factors.

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.

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

VF

2a. Complete the bar model.

$1\frac{\square}{\square}$	
$\frac{9}{10}$	$\frac{4}{10}$

VF

3a. Solve the following calculations.

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

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

VF

4a. Which calculation is incorrect?

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

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

VF

Add Fractions

1b. Complete the calculation shown in the model below

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

VF

2b. Complete the bar model.

$1\frac{\square}{\square}$	
$\frac{3}{8}$	$\frac{7}{8}$

VF

3b. Solve the following calculations.

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

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

VF

4b. Which calculation is incorrect?

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

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

VF

Add Fractions

5a. Complete the calculation shown in the model below.
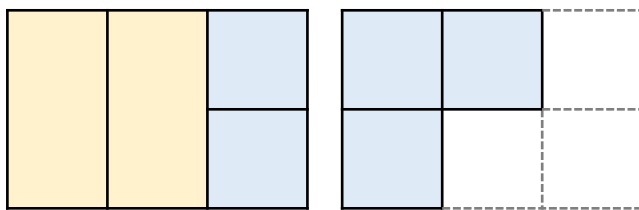
$$\frac{\square}{\square} + \frac{\square}{\square} + \frac{\square}{\square} = \square \frac{\square}{\square}$$

VF

Add Fractions

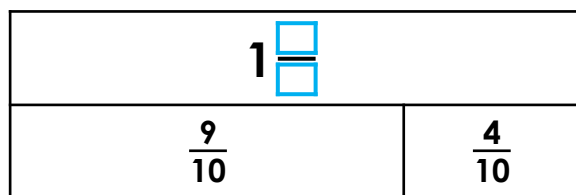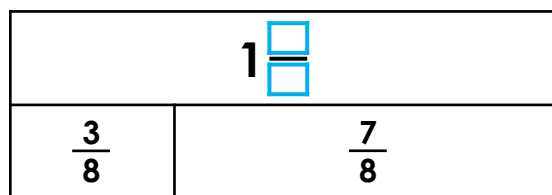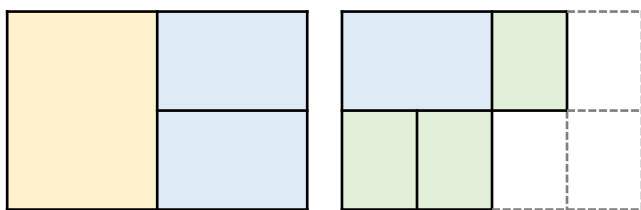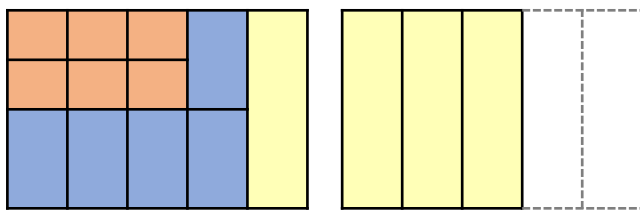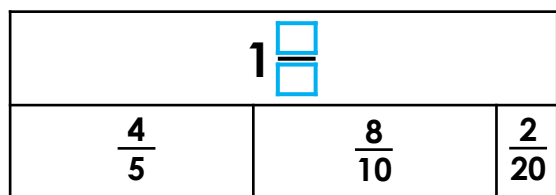**5b.** Complete the calculation shown in the model below

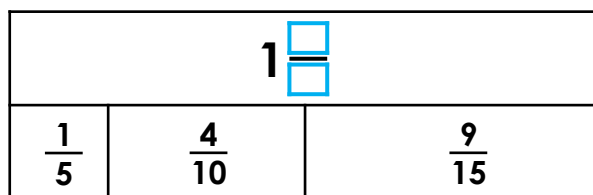$$\frac{\square}{\square} + \frac{\square}{\square} + \frac{\square}{\square} = \square \frac{\square}{\square}$$

VF

6a. Complete the bar model.

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

VF

6b. Complete the bar model.

$1\frac{\square}{\square}$		
$\frac{1}{5}$	$\frac{4}{10}$	$\frac{9}{15}$

VF

7a. Solve the following calculations.

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

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

VF

7b. Solve the following calculations.

A. $\dfrac{5}{7} + \dfrac{3}{14} + \dfrac{15}{21} = \square$

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

VF

8a. Which calculation is incorrect?

A. $\dfrac{4}{7} + \dfrac{15}{21} + \dfrac{9}{14} = 1\dfrac{13}{14}$

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

VF

8b. Which calculation is incorrect?

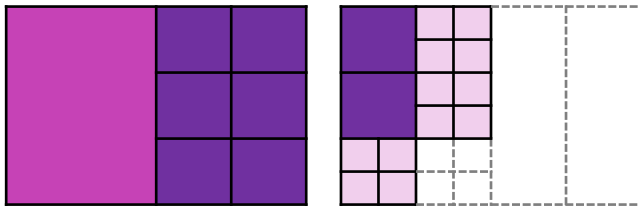A. $\dfrac{3}{4} + \dfrac{9}{16} + \dfrac{15}{24} = 1\dfrac{15}{16}$

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

VF

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Varied Fluency – Add Fractions – Year 5 Expected

Add Fractions

Add Fractions

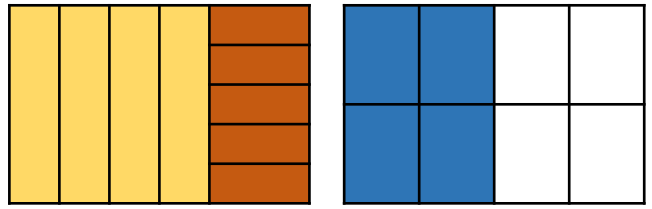**9a.** Fill in the missing numerators and complete the calculation shown in the model below.

$$\frac{\square}{2} + \frac{\square}{12} + \frac{\square}{48} = \frac{\square\square}{\square}$$

GD / VF

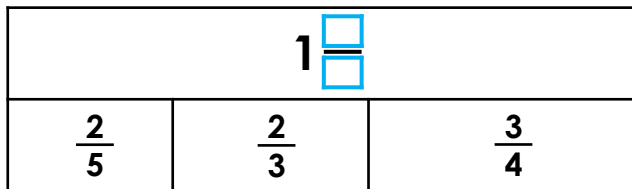**9b.** Fill in the missing numerators and complete the calculation shown in the model below.

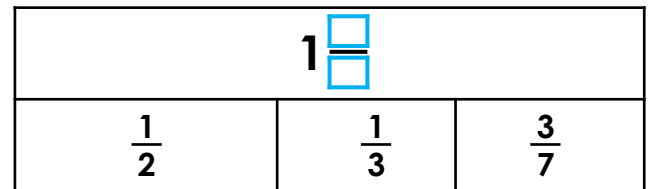$$\frac{\square}{6} + \frac{\square}{3} + \frac{\square}{8} = \frac{\square\square}{\square}$$

GD / VF

10a. Complete the bar model.

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

GD / VF

10b. Complete the bar model.

$1\frac{\square}{\square}$		
$\frac{1}{2}$	$\frac{1}{3}$	$\frac{3}{7}$

GD / VF

11a. Solve the following calculations.

A. $\dfrac{2}{3} + \dfrac{4}{7} + \dfrac{5}{6} = \square$

B. $\dfrac{8}{11} + \dfrac{2}{3} + \dfrac{1}{6} = \square$

GD / VF

11b. Solve the following calculations.

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

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

GD / VF

12a. Which calculation is incorrect?

A. $\dfrac{3}{7} + \dfrac{4}{5} + \dfrac{10}{35} = 1\dfrac{18}{35}$

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

GD / VF

12b. Which calculation is incorrect?

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

B. $\dfrac{7}{12} + \dfrac{23}{60} + \dfrac{2}{3} = 1\dfrac{19}{30}$

GD / VF

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

Developing

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

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

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

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

Expected

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

6a. $1\frac{7}{10}$

7a. A $= 1\frac{3}{4}$, B $= 1\frac{7}{8}$

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

Expected

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

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

7b. A $= 1\frac{9}{14}$, B $= 1\frac{25}{36}$

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

Greater Depth

9a. $\frac{1}{2} + \frac{8}{12} + \frac{12}{48} = 1\frac{5}{12}$

10a. $1\frac{49}{60}$

11a. A $= 2\frac{1}{14}$, B $= 1\frac{37}{66}$

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

Greater Depth

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

10b. $1\frac{11}{42}$

11b. A $= 2\frac{1}{60}$, B $= 1\frac{13}{44}$

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

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