

# Varied Fluency

## Step 7: Add and Subtract Fractions 1

### National Curriculum Objectives:

Mathematics Year 6: (6F2) [Use common factors to simplify fractions; use common multiples to express fractions in the same denomination](#)

Mathematics Year 6: (6F4) [Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions](#)

Mathematics Year 6: (6F11) [Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts](#)

### Differentiation:

**Developing** Questions to support adding and subtracting fractions where denominators are direct multiples of the same number.

**Expected** Questions to support adding and subtracting fractions where denominators are not always direct multiples of the same number.

**Greater Depth** Questions to support adding and subtracting fractions where denominators are not direct multiples of the same number.

More [Year 5 and Year 6 Fractions](#) resources.

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

# Add and Subtract Fractions 1

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1a. Find the lowest common denominator for the fractions below.

$$\frac{2}{4} \quad \frac{7}{2} \quad \frac{3}{8}$$



6 VF

1b. Find the lowest common denominator for the fractions below.

$$\frac{1}{6} \quad \frac{2}{9} \quad \frac{1}{3}$$



6 VF

2a. Fill in the missing numerator.

$$\frac{2}{6} + \frac{\square}{9} = \frac{2}{3}$$



6 VF

2b. Fill in the missing numerator.

$$\frac{5}{8} - \frac{\square}{16} = \frac{1}{4}$$



6 VF

3a. Complete the calculation.  
Give your answer in its simplest form.

$$\frac{3}{10} - \frac{5}{20} = \frac{\square}{\square}$$



6 VF

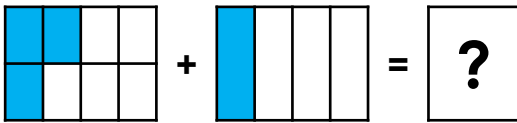
3b. Complete the calculation.  
Give your answer in its simplest form.

$$\frac{2}{5} + \frac{2}{15} = \frac{\square}{\square}$$



6 VF

4a. Complete the addition related to the image.



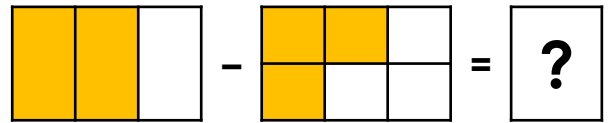
Give your answer in its simplest form.

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



6 VF

4b. Complete the subtraction related to the image.



Give your answer in its simplest form.

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



6 VF

5a. A flower grows  $\frac{1}{9}$  of a metre in spring,  $\frac{1}{3}$  of a metre in summer and  $\frac{1}{6}$  of a metre in autumn.

How much does it grow in total over the 3 seasons?



6 VF

5b. My gran is knitting a scarf. Yesterday she completed  $\frac{3}{7}$ , the day before  $\frac{3}{14}$  and today she has knitted  $\frac{2}{7}$ .

How much of the scarf has she completed?



6 VF

# Add and Subtract Fractions 1

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6a. Find the lowest common denominator for the fractions below.

$$\frac{3}{4} \quad \frac{7}{18} \quad \frac{9}{36} \quad \frac{3}{12}$$



6 VF

6b. Find the lowest common denominator for the fractions below.

$$\frac{1}{8} \quad \frac{7}{10} \quad \frac{2}{5} \quad \frac{1}{2}$$



6 VF

7a. Fill in the missing numerator.

$$\frac{3}{7} + \frac{\square}{35} = \frac{5}{7}$$



6 VF

7b. Fill in the missing denominator.

$$\frac{5}{12} - \frac{2}{9} = \frac{7}{\square}$$



6 VF

8a. Complete the calculation.  
Give your answer in its simplest form.

$$\frac{10}{25} - \frac{1}{5} = \frac{\square}{\square}$$



6 VF

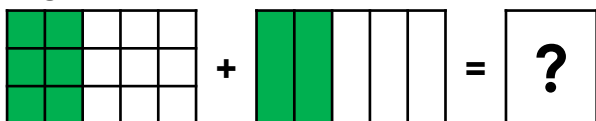
8b. Complete the calculation.  
Give your answer in its simplest form.

$$\frac{8}{15} + \frac{1}{3} = \frac{\square}{\square}$$



6 VF

9a. Complete the addition related to the image.



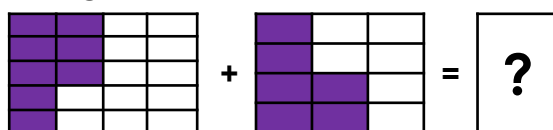
Give your answer in its simplest form.

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



6 VF

9b. Complete the subtraction related to the image.



Give your answer in its simplest form.

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



6 VF

10a. At Joe's party, the children ate  $\frac{2}{9}$  of the cake. His family ate  $\frac{3}{18}$  of the cake and he shared  $\frac{3}{6}$  of the cake with his football club.

How much has been eaten altogether?



6 VF

10b. A car dealer sells  $\frac{1}{10}$  of their target in week one,  $\frac{4}{15}$  in week two and  $\frac{6}{20}$  in week three.

How much of their target is left to sell in week four?



6 VF

# Add and Subtract Fractions 1

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11a. Find the lowest common denominator for the fractions below.

$$\frac{4}{13} \quad \frac{1}{2} \quad \frac{11}{26} \quad \frac{7}{13}$$



6 VF

11b. Find the lowest common denominator for the fractions below.

$$\frac{3}{7} \quad \frac{2}{5} \quad \frac{5}{14} \quad \frac{1}{2}$$



6 VF

12a. Fill in the missing denominator.

$$\frac{6}{7} - \frac{1}{2} = \frac{5}{\square}$$



6 VF

12b. Fill in the missing denominator.

$$\frac{2}{9} + \frac{3}{8} = \frac{43}{\square}$$



6 VF

13a. Complete the calculation. Give your answer in its simplest form.

$$\frac{6}{7} + \frac{1}{9} = \frac{\square}{\square}$$



6 VF

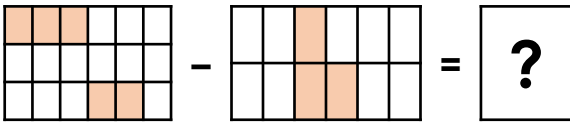
13b. Complete the calculation. Give your answer in its simplest form.

$$\frac{1}{8} + \frac{7}{10} = \frac{\square}{\square}$$



6 VF

14a. Complete the addition related to the image.



Give your answer in its simplest form.

$$\frac{\square}{\square} - \frac{\square}{\square} = \frac{\square}{\square}$$



6 VF

14b. Complete the addition related to the image.



Give your answer in its simplest form.

$$\frac{\square}{\square} - \frac{\square}{\square} = \frac{\square}{\square}$$



6 VF

15a. A designer plans a garden;  $\frac{3}{8}$  is lawn,  $\frac{1}{9}$  is bush ground cover and  $\frac{1}{4}$  is hard landscaped.

How much is left for planting?



6 VF

15b. A rugby player covers  $\frac{2}{12}$  of the pitch, then passes the ball  $\frac{5}{18}$  of the pitch to the winger who runs  $\frac{1}{9}$  further.

How much of the pitch have they covered?



6 VF

## Varied Fluency Add and Subtract Fractions 1

### Developing

1a. 8

2a.  $\frac{3}{9}$

3a.  $\frac{1}{20}$

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

5a.  $\frac{1}{9} + \frac{1}{3} + \frac{1}{6} = \frac{2}{18} + \frac{6}{18} + \frac{3}{18} = \frac{11}{18}$

The plant grows  $\frac{11}{18}$  over the three seasons.

### Expected

6a. 36

7a.  $\frac{10}{35}$

8a.  $\frac{1}{5}$

9a.  $\frac{6}{15} + \frac{2}{5} = \frac{4}{5}$

10a.  $\frac{2}{9} + \frac{3}{18} + \frac{3}{6} = \frac{4}{18} + \frac{3}{18} + \frac{9}{18} = \frac{16}{18}$

$\frac{8}{9}$  of the cake has been eaten.

### Greater Depth

11a. 26

12a.  $\frac{5}{14}$

13a.  $\frac{61}{63}$

14a.  $\frac{5}{18} - \frac{3}{12} = \frac{1}{36}$

15a.  $\frac{3}{8} + \frac{1}{9} + \frac{1}{4} = \frac{27}{72} + \frac{8}{72} + \frac{18}{72} = \frac{53}{72}$

Therefore  $\frac{19}{72}$  left for plants.

## Varied Fluency Add and Subtract Fractions 1

### Developing

1b. 18

2b.  $\frac{6}{16}$

3b.  $\frac{8}{15}$

4b.  $\frac{2}{3} - \frac{3}{6} = \frac{1}{6}$

5b.  $\frac{3}{7} + \frac{3}{14} + \frac{2}{7} = \frac{6}{14} + \frac{3}{14} + \frac{4}{14} = \frac{13}{14}$

$\frac{13}{14}$  of the scarf is complete.

### Expected

6b. 40

7b.  $\frac{7}{36}$

8b.  $\frac{13}{15}$

9b.  $\frac{8}{20} + \frac{6}{12} = \frac{9}{10}$

10b.  $\frac{1}{10} + \frac{4}{15} + \frac{6}{20} = \frac{6}{60} + \frac{16}{60} + \frac{18}{60} = \frac{2}{3}$

Therefore  $\frac{1}{3}$  of the target left to sell.

### Greater Depth

11b. 70

12b.  $\frac{43}{72}$

13b.  $\frac{33}{40}$

14b.  $\frac{1}{3} - \frac{4}{14} = \frac{1}{21}$

15b.  $\frac{2}{12} + \frac{5}{18} + \frac{1}{9} = \frac{6}{36} + \frac{10}{36} + \frac{4}{36} = \frac{10}{18}$

They covered  $\frac{5}{9}$  of the pitch.