

Homework/Extension

Step 6: Add 2 or More Fractions

National Curriculum Objectives:

Mathematics Year 4: (4F4) [Add and subtract fractions with the same denominator](#)

Differentiation:

Questions 1, 4 and 7 (Varied Fluency)

Developing Match the calculation to the correct answer when adding two or more fractions with the same denominator where answers are less than 1.

Expected Match the calculation to the correct answer when adding two or more fractions with the same denominator where answers are greater than 1.

Greater Depth Match the calculation to the correct answer when adding two or more fractions where answers are greater than 1. Using some fractions with denominators that are double or half of the previous fraction. Answers expressed as improper fractions and mixed numbers.

Questions 2, 5 and 8 (Varied Fluency)

Developing Use a number line to identify missing numbers in a calculation when adding two or more fractions with the same denominator where answers are less than 1.

Expected Use a number line to identify missing numbers in a calculation when adding two or more fractions with the same denominator where answers are greater than 1.

Greater Depth Use an empty number line to identify missing numbers in a calculation when adding two or more fractions where answers are greater than 1. Using some fractions with denominators that are double or half of the previous fraction. Answers expressed as improper fractions and mixed numbers.

Questions 3, 6 and 9 (Reasoning and Problem Solving)

Developing Find a path through a maze by adding two or more fractions with the same denominator where answers are less than 1.

Expected Find a path through a maze by adding two or more fractions with the same denominator where answers are greater than 1.

Greater Depth Find a path through a maze by adding two or more fractions where answers are greater 1. Using some fractions with denominators that are double or half of the previous fraction. Answers expressed as improper fractions.

More [Year 4 Fractions](#) resources.

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Add 2 or More Fractions

1. Match the calculations to the correct answers.

A.

$$\frac{6}{12} + \frac{2}{12} + \frac{3}{12}$$

$$\frac{12}{12}$$

B.

$$\frac{2}{12} + \frac{4}{12} + \frac{3}{12} + \frac{1}{12}$$

$$\frac{11}{12}$$

C.

$$\frac{5}{12} + \frac{4}{12} + \frac{3}{12}$$

$$\frac{9}{12}$$

D.

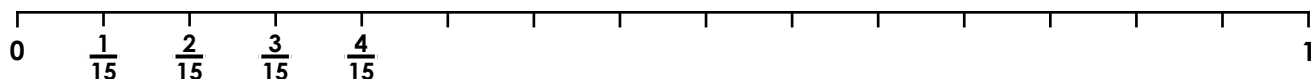
$$\frac{1}{12} + \frac{1}{12} + \frac{7}{12}$$

$$\frac{10}{12}$$

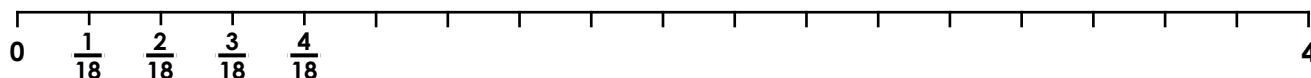


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2. Use the number lines to complete the calculations below.



A. $\frac{4}{15} + \frac{5}{15} + \frac{\boxed{}}{15} + \frac{3}{\boxed{}} = \frac{14}{\boxed{}}$



B. $\frac{7}{18} + \frac{4}{\boxed{}} + \frac{2}{18} + \frac{4}{\boxed{}} = \frac{\boxed{}}{\boxed{}}$



VF
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3. Find a path through the maze by adding fractions together to reach the finishing total.

Start →	$\frac{1}{30}$	$\frac{3}{30}$	$\frac{5}{30}$	$\frac{2}{30}$	$\frac{6}{30}$	$\frac{4}{30}$	$\frac{2}{30}$	
	$\frac{2}{30}$	$\frac{4}{30}$	$\frac{6}{30}$	$\frac{7}{30}$	$\frac{1}{30}$	$\frac{10}{30}$	$\frac{3}{30}$	
	$\frac{5}{30}$	$\frac{9}{30}$	$\frac{3}{30}$	$\frac{2}{30}$	$\frac{1}{30}$	$\frac{6}{30}$	$\frac{2}{30}$	
	$\frac{4}{30}$	$\frac{2}{30}$	$\frac{2}{30}$	$\frac{5}{30}$	$\frac{6}{30}$	$\frac{3}{30}$	$\frac{28}{30}$	Finish →



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Add 2 or More Fractions

4. Match the calculations to the correct answers.

A.

$$\frac{4}{8} + \frac{1}{8} + \frac{5}{8}$$

$$\frac{9}{8}$$

B.

$$\frac{6}{8} + \frac{3}{8} + \frac{4}{8} + \frac{2}{8}$$

$$\frac{10}{8}$$

C.

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

$$\frac{15}{8}$$

D.

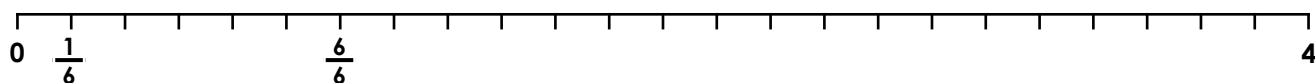
$$\frac{5}{8} + \frac{3}{8} + \frac{6}{8}$$

$$\frac{14}{8}$$

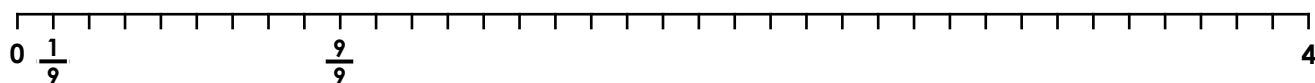


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5. Use the number lines to complete the calculations below.



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



B. $\frac{\square}{\square} + \frac{2}{\square} + \frac{11}{\square} + \frac{6}{\square} = \frac{23}{9}$



VF
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6. Find a path through the maze by adding fractions together to reach the finishing total.

Start →	$\frac{1}{15}$	$\frac{3}{15}$	$\frac{9}{15}$	$\frac{10}{15}$	$\frac{2}{15}$	$\frac{7}{15}$	$\frac{9}{15}$	
	$\frac{4}{15}$	$\frac{3}{15}$	$\frac{11}{8}$	$\frac{3}{15}$	$\frac{2}{15}$	$\frac{2}{15}$	$\frac{17}{15}$	
	$\frac{8}{15}$	$\frac{7}{15}$	$\frac{2}{15}$	$\frac{4}{15}$	$\frac{19}{15}$	$\frac{2}{15}$	$\frac{1}{15}$	
	$\frac{7}{15}$	$\frac{2}{15}$	$\frac{5}{15}$	$\frac{6}{15}$	$\frac{4}{15}$	$\frac{2}{15}$	$\frac{49}{15}$	Finish →

Find two different paths through the maze.



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Add 2 or More Fractions

7. Match the calculations to the correct answers.

A.

$$\frac{3}{9} + \frac{10}{18} + \frac{14}{18}$$

$$\frac{25}{18}$$

B.

$$\frac{2}{6} + \frac{8}{12} + \frac{20}{24} + \frac{3}{6}$$

$$2\frac{2}{6}$$

C.

$$\frac{5}{18} + \frac{6}{18} + \frac{7}{9}$$

$$1\frac{6}{9}$$

D.

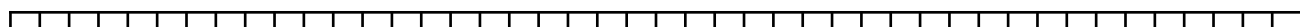
$$\frac{2}{3} + \frac{5}{6} + \frac{14}{12} + \frac{3}{6}$$

$$\frac{19}{6}$$

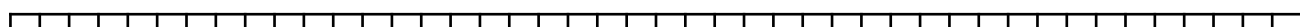


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8. Complete the calculations below. You may use the number line to help you.



$$A. \frac{8}{12} + \frac{\square}{6} + \frac{5}{\square} = \frac{22}{6} = \square \frac{\square}{\square}$$



$$B. \frac{20}{16} + \frac{\square}{8} + \frac{3}{4} + \frac{11}{\square} = \frac{33}{8} = \square \frac{\square}{\square}$$



VF
HW/Ext

9. Find a path through the maze by adding fractions together to reach the finishing total.

Start →	$\frac{4}{6}$	$\frac{18}{12}$	$\frac{7}{6}$	$\frac{4}{3}$	$\frac{1}{6}$	$\frac{2}{12}$	$\frac{27}{24}$
	$\frac{6}{12}$	$\frac{15}{6}$	$\frac{4}{3}$	$\frac{2}{6}$	$\frac{10}{12}$	$\frac{16}{24}$	$\frac{8}{12}$
	$\frac{8}{24}$	$\frac{19}{12}$	$\frac{4}{6}$	$\frac{10}{12}$	$\frac{32}{24}$	$\frac{24}{12}$	$\frac{7}{6}$
	$\frac{18}{12}$	$\frac{10}{6}$	$\frac{11}{3}$	$\frac{4}{6}$	$\frac{14}{12}$	$\frac{12}{24}$	$\frac{64}{6}$ Finish →

Find two different paths through the maze.



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Developing

1. $A - \frac{11}{12}$; $B - \frac{10}{12}$; $C - \frac{12}{12}$; $D - \frac{9}{12}$
2. $A - \frac{4}{15} + \frac{5}{15} + \frac{2}{15} + \frac{3}{15} = \frac{14}{15}$; $B - \frac{7}{18} + \frac{4}{18} + \frac{2}{18} + \frac{4}{18} = \frac{17}{18}$
3. Various answers, for example:

Start →	$\frac{1}{30}$	$\frac{3}{30}$	$\frac{5}{30}$	$\frac{2}{30}$	$\frac{6}{30}$	$\frac{4}{30}$	$\frac{2}{30}$	
	$\frac{2}{30}$	$\frac{4}{30}$	$\frac{6}{30}$	$\frac{7}{30}$	$\frac{1}{30}$	$\frac{10}{30}$	$\frac{3}{30}$	
	$\frac{5}{30}$	$\frac{9}{30}$	$\frac{3}{30}$	$\frac{2}{30}$	$\frac{1}{30}$	$\frac{6}{30}$	$\frac{2}{30}$	
	$\frac{4}{30}$	$\frac{2}{30}$	$\frac{2}{30}$	$\frac{5}{30}$	$\frac{6}{30}$	$\frac{3}{30}$	$\frac{28}{30}$	Finish →

Expected

4. $A - \frac{10}{8}$; $B - \frac{15}{8}$; $C - \frac{9}{8}$; $D - \frac{14}{8}$
5. $A - \frac{5}{6} + \frac{3}{6} + \frac{7}{6} + \frac{4}{6} = \frac{19}{6}$; $B - \frac{4}{9} + \frac{2}{9} + \frac{11}{9} + \frac{6}{9} = \frac{23}{9}$
6. Various answers, for example:

Start →	$\frac{1}{15}$	$\frac{3}{15}$	$\frac{9}{15}$	$\frac{10}{15}$	$\frac{2}{15}$	$\frac{7}{15}$	$\frac{9}{15}$	
	$\frac{4}{15}$	$\frac{3}{15}$	$\frac{11}{8}$	$\frac{3}{15}$	$\frac{2}{15}$	$\frac{2}{15}$	$\frac{17}{15}$	
	$\frac{8}{15}$	$\frac{7}{15}$	$\frac{2}{15}$	$\frac{4}{15}$	$\frac{19}{15}$	$\frac{2}{15}$	$\frac{1}{15}$	
	$\frac{7}{15}$	$\frac{2}{15}$	$\frac{5}{15}$	$\frac{6}{15}$	$\frac{4}{15}$	$\frac{2}{15}$	$\frac{49}{15}$	Finish →

Greater Depth

7. $A - 1\frac{6}{9}$; $B - 2\frac{2}{6}$; $C - \frac{25}{18}$; $D - \frac{19}{6}$
8. $A - \frac{8}{12} + \frac{4}{6} + \frac{5}{6} = \frac{22}{6} = 3\frac{4}{6}$; $B - \frac{20}{16} + \frac{6}{8} + \frac{3}{4} + \frac{11}{8} = \frac{33}{8} = 4\frac{1}{8}$
9. Various answers, for example:

Start →	$\frac{4}{6}$	$\frac{18}{12}$	$\frac{7}{6}$	$\frac{4}{3}$	$\frac{1}{6}$	$\frac{2}{12}$	$\frac{27}{24}$	
	$\frac{6}{12}$	$\frac{15}{6}$	$\frac{4}{3}$	$\frac{2}{6}$	$\frac{10}{12}$	$\frac{16}{24}$	$\frac{8}{12}$	
	$\frac{8}{24}$	$\frac{19}{12}$	$\frac{4}{6}$	$\frac{10}{12}$	$\frac{32}{24}$	$\frac{24}{12}$	$\frac{7}{6}$	
	$\frac{18}{12}$	$\frac{10}{6}$	$\frac{11}{3}$	$\frac{4}{6}$	$\frac{14}{12}$	$\frac{12}{24}$	$\frac{64}{6}$	Finish →