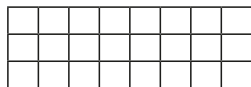
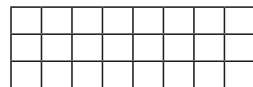


- 1 a) Shade the grids to represent the fractions.



$$\frac{2}{3}$$



$$\frac{1}{8}$$

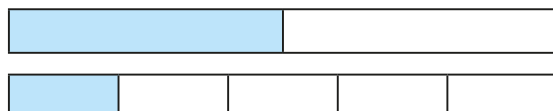
- b) Use the grids to show that $\frac{2}{3} + \frac{1}{8} = \frac{19}{24}$

- c) Why do you think this particular size grid was chosen?



- 2 Annie is working out $\frac{1}{5} + \frac{1}{2}$

She uses bar models.



Divide each bar into tenths and work out the answer to the question.

$$\frac{1}{5} + \frac{1}{2}$$

- 3 Tommy is calculating $\frac{1}{5} + \frac{5}{8}$

Here are his workings.

$40 = 5 \times 8$
 The lowest common multiple of 5 and 8 is 40

$$\frac{1 \times 8}{5 \times 8} = \frac{8}{40}$$

$$\frac{5 \times 5}{8 \times 5} = \frac{25}{40}$$

$$\frac{1}{5} + \frac{5}{8} = \frac{8}{40} + \frac{25}{40}$$

$$= \frac{33}{40}$$

Do you agree with Tommy?

Talk about it with a partner



- 4 Work out the additions.

a) $\frac{1}{4} + \frac{1}{2}$

d) $\frac{1}{4} + \frac{2}{5}$

b) $\frac{1}{4} + \frac{1}{3}$

e) $\frac{3}{4} + \frac{1}{6}$

c) $\frac{1}{4} + \frac{2}{3}$

f) $\frac{3}{4} + \frac{2}{9}$

- 5 Work out the subtractions.

a) $\frac{3}{4} - \frac{2}{3}$

c) $\frac{8}{9} - \frac{5}{6}$

b) $\frac{9}{10} - \frac{2}{3}$

d) $\frac{7}{8} - \frac{2}{3}$

- 6 Here are four fractions.

$$\frac{5}{12}$$

$$\frac{3}{11}$$

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

$$\frac{7}{15}$$

- a) Which two fractions add together to give $\frac{49}{99}$?

- b) Which two fractions add together to give $\frac{23}{36}$?

- 7 Work out $1 - \frac{1}{5} - \frac{1}{12}$

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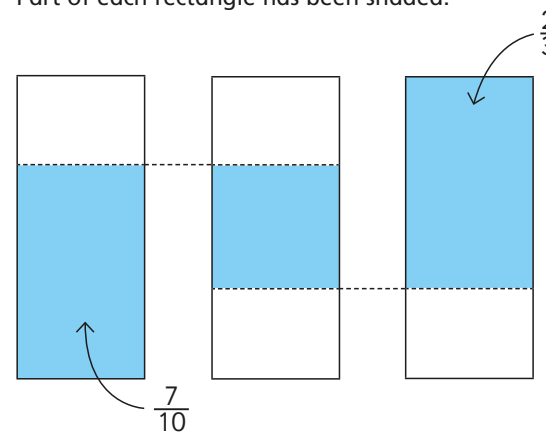
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7 Work out $1 - \frac{1}{5} - \frac{1}{12}$

8 Here are three identical rectangles.

Part of each rectangle has been shaded.



What fraction of the middle rectangle has been shaded?

9 How would you work out these calculations without a calculator?

Discuss your methods with a partner.

a) $\frac{14}{91} + \frac{3}{13}$

b) $(\frac{4}{7} - \frac{2}{17}) + (\frac{3}{7} - \frac{38}{51})$

c) $\frac{1}{2} - \frac{1}{3} + \frac{1}{4} - \frac{1}{5} + \frac{1}{6}$