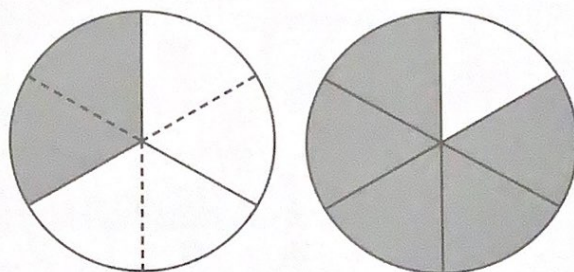


Adding fractions 1

1 a) Work out $\frac{5}{6} + \frac{1}{3}$.

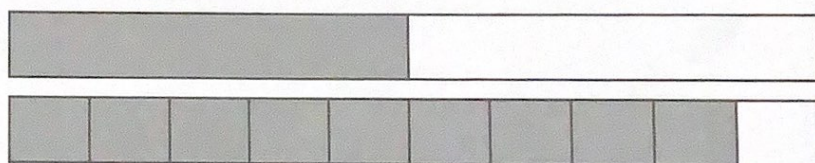
$$\begin{aligned}\frac{1}{3} &= \frac{\boxed{2}}{6} \\ \frac{5}{6} + \frac{1}{3} &= \frac{5}{6} + \frac{\boxed{2}}{6} \\ &= \frac{\boxed{7}}{6} = \boxed{1} \frac{\boxed{1}}{6}\end{aligned}$$



b) Work out $\frac{1}{2} + \frac{9}{10}$.

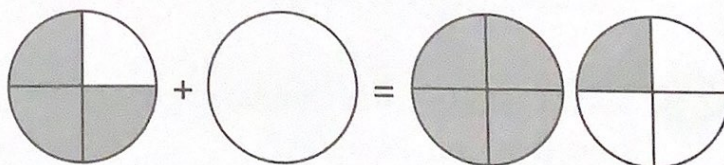
$$\begin{aligned}\frac{1}{2} &= \frac{\boxed{5}}{10} \\ \frac{1}{2} + \frac{9}{10} &= \frac{\boxed{5}}{10} + \frac{9}{10} \\ &= \frac{\boxed{14}}{10} = \boxed{1} \frac{\boxed{2}}{5}\end{aligned}$$

$1 \frac{4}{10}$



2 Danny adds two fractions.

What is the missing fraction?



$$\frac{3}{4} + \frac{\boxed{1}}{\boxed{2}} = 1 \frac{1}{4}$$

Handwritten solution:

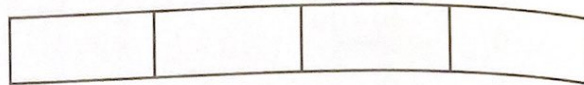
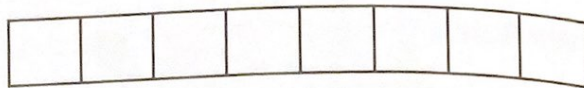
$$\begin{aligned}\frac{3}{4} + \frac{2}{4} &= 1 \frac{1}{4} \\ \frac{2}{4} &= \frac{1}{2}\end{aligned}$$

3 Use the diagrams to help you work out the calculations.

a) $\frac{3}{8} + \frac{3}{4}$

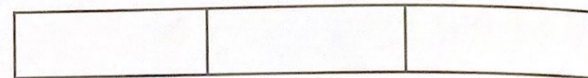
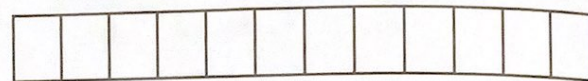
$$\frac{3}{4} = \frac{6}{8}$$

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



b) $\frac{5}{12} + \frac{2}{3}$

$$\frac{2}{3} = \frac{8}{12}$$



$\frac{5}{12} + \frac{8}{12} = \frac{13}{12} = 1 \frac{1}{12}$

4 What is the total amount of juice in the two bottles, in litres?

$\frac{3}{4} = \frac{15}{20}$

$$\frac{15}{20} + \frac{7}{20} = \frac{22}{20} = 1 \frac{2}{20} = 1 \frac{1}{10}$$



5 Work out these fraction additions.

a) $\frac{7}{10} + \frac{11}{20}$

$\frac{7}{10} = \frac{14}{20}$

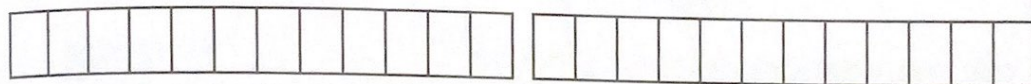
$\frac{14}{20} + \frac{11}{20} = \frac{25}{20} = 1\frac{5}{20} = 1\frac{1}{4}$

b) $\frac{11}{15} + \frac{4}{5}$

$\frac{4}{5} = \frac{12}{15}$

$\frac{11}{15} + \frac{12}{15} = \frac{23}{15} = 1\frac{8}{15}$

6 Work out the missing fractions.



a) $\frac{1}{2} + \frac{\boxed{11}}{\boxed{12}} = \frac{17}{12}$

$\frac{6}{12}$

b) $\frac{2}{3} + \frac{\boxed{9}}{\boxed{12}} = \frac{17}{12}$

$\frac{8}{12}$

$\frac{3}{4}$

c) $\frac{5}{6} + \frac{\boxed{7}}{\boxed{12}} = \frac{17}{12}$

$\frac{10}{12}$

d) $\frac{1}{2} + \frac{\boxed{7}}{\boxed{12}} = 1\frac{1}{12}$

$\frac{6}{12}$

e) $\frac{2}{3} + \frac{\boxed{5}}{\boxed{12}} = 1\frac{1}{12}$

$\frac{8}{12}$

f) $\frac{\boxed{1}}{\boxed{4}} + \frac{5}{6} = 1\frac{1}{12}$

$\frac{10}{12} + \frac{3}{12} = \frac{13}{12}$

CHALLENGE

Reflect

Max is working out $\frac{2}{3} + \frac{7}{9}$. He says the answer is $\frac{9}{12}$.

What mistake has Max made?

The denominators have been added.

$\frac{2}{3} = \frac{6}{9}$ $\frac{6}{9} + \frac{7}{9} = \frac{13}{9} = 1\frac{4}{9}$