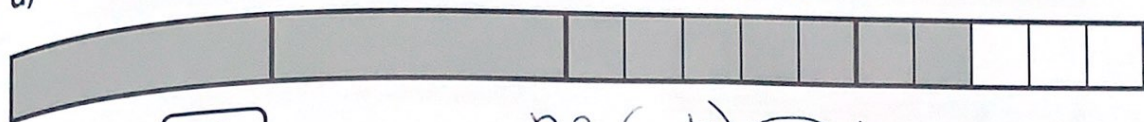


Subtracting fractions 2

- 1 a) Use the diagram to help you work out $3\frac{2}{5} - \frac{4}{5}$.



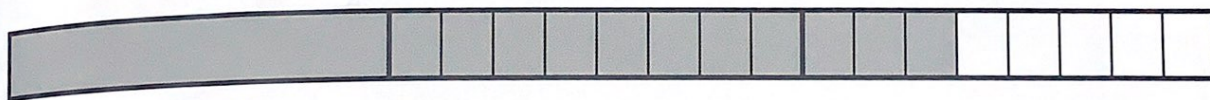
$$3\frac{2}{5} = 2\frac{\boxed{7}}{5}$$

$$2\frac{\boxed{7}}{5} - \frac{4}{5} = 2\frac{\boxed{3}}{5}$$

$$\text{So, } 3\frac{2}{5} - \frac{4}{5} = 2\frac{\boxed{3}}{5}$$

Handwritten notes: $32(1 = \frac{5}{5})$ and $\frac{5}{5} + \frac{2}{5} = \frac{7}{5}$ so $2\frac{7}{5}$.

- b) Use the diagram to help you work out $2\frac{3}{8} - \frac{7}{8}$.



$$2\frac{3}{8} = 1\frac{\boxed{11}}{8}$$

$$1\frac{\boxed{11}}{8} - \frac{7}{8} = 1\frac{\boxed{4}}{8}$$

$$\text{So, } 2\frac{3}{8} - \frac{7}{8} = 1\frac{\boxed{1}}{\boxed{2}}$$

Handwritten notes: $\frac{4}{8} = \frac{1}{2}$ in its simplest form.

- 2 Work out the missing fractions.



a) $1\frac{\frac{9}{7}}{7} - \frac{\boxed{3}}{7} = \frac{6}{7}$

c) $1\frac{\frac{9}{7}}{7} - \frac{\boxed{7}}{7} = \frac{2}{7}$

b) $1\frac{\frac{9}{7}}{7} - \frac{\boxed{5}}{7} = \frac{4}{7}$

d) $1\frac{\frac{9}{7}}{7} - \frac{\boxed{1}}{7} = \frac{8}{7}$

Handwritten note: $1\frac{2}{7} = \frac{9}{7}$

- 3 a) Work out $4\frac{1}{4} - \frac{7}{8}$.



$$4\frac{1}{4} = 4\frac{\boxed{2}}{8} = 3\frac{\boxed{10}}{8}$$

$$3\frac{\boxed{10}}{8} - \frac{7}{8} = 3\frac{\boxed{3}}{8}$$

$$\text{So, } 4\frac{1}{4} - \frac{7}{8} = 3\frac{\boxed{3}}{8}$$

- b) Work out $2\frac{3}{5} - \frac{9}{10}$.



$$2\frac{3}{5} = 2\frac{6}{10} \quad 2\frac{6}{10} - \frac{9}{10} = 1\frac{16}{10} - \frac{9}{10} = 1\frac{7}{10}$$

- 4 Calculate the following.

a) $5\frac{1}{3} - \frac{7}{9} = 4\frac{5}{9}$

c) $7\frac{2}{14} - \frac{3}{7} = 6\frac{10}{14}$ or $6\frac{5}{7}$

b) $5\frac{1}{3} - \frac{11}{12} = 4\frac{5}{12}$

d) $4\frac{5}{24} - \frac{2}{3} = 3\frac{13}{24}$

a) $5\frac{1}{3} = 5\frac{4}{12} \rightarrow 4\frac{16}{12} - \frac{7}{12} = 4\frac{9}{12} = 4\frac{3}{4}$

b) $5\frac{1}{3} = 5\frac{4}{12} \rightarrow 4\frac{16}{12} - \frac{11}{12} = 4\frac{5}{12}$

c) $7\frac{2}{14} - \frac{3}{7} = 7\frac{2}{14} - \frac{6}{14} \rightarrow 6\frac{16}{14} - \frac{6}{14} = 6\frac{10}{14} = 6\frac{5}{7}$

d) $4\frac{5}{24} - \frac{16}{24} \rightarrow 3\frac{29}{24} - \frac{16}{24} = 3\frac{13}{24}$

5 3 sandwiches are each cut into 8 pieces.
Lexi eats $\frac{5}{8}$ of one of the sandwiches.

Danny eats one more piece than Lexi.
How many sandwiches are left?

There are $\boxed{1} \frac{\boxed{5}}{\boxed{8}}$ sandwiches left.



3 sandwiches = $\frac{24}{8}$

$$\frac{24}{8} - \frac{5}{8} = \frac{19}{8}$$

$$\frac{19}{8} - \frac{6}{8} = \frac{13}{8} \rightarrow 13 \div 8 = 1 \text{ r } 5$$

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

6 Work out what numbers the symbols represent.

$$2\frac{1}{2} - \blacktriangle = 1\frac{11}{12}$$

$$3\frac{5}{6} - \blacktriangle = 4\frac{1}{3} - \bullet$$



$2\frac{1}{2} - \blacktriangle = 1\frac{11}{12} \rightarrow 2\frac{6}{12} - \blacktriangle = 1\frac{11}{12} \rightarrow 1\frac{18}{12} - \blacktriangle = 1\frac{11}{12}$

$3\frac{5}{6} = \frac{310}{12} - \frac{7}{12} = 3\frac{3}{12}$

$4\frac{1}{3} \Rightarrow 4\frac{4}{12} - \left(1\frac{1}{12}\right) = 3\frac{3}{12}$

$$\blacktriangle = \boxed{7/12}$$

$$\bullet = \boxed{1\frac{1}{12}}$$

Reflect

How do you know that $2\frac{2}{5} - \frac{9}{20}$ is less than 2?

Because $\frac{2}{5} = \frac{8}{20}$ so to take away $\frac{9}{20}$ I would need to exchange one of the wholes into 20ths so the answer will be less than 2.