## Add and subtract fractions from integers expressing the answer as a single fraction



What is the same about the answers to the three calculations?

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

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

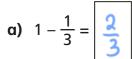
$$\frac{1}{4} + \frac{1}{4} + \frac{2}{4} = \boxed{\frac{4}{4}}$$

They are all equal to !

Use a bar model to explain why  $\frac{3}{5} + \frac{2}{5}$  is equal to 1



3 Use the bar models to work out the subtractions.



**b)** 
$$1 - \frac{2}{3} = \boxed{\frac{1}{3}}$$

c) 
$$1 - \frac{3}{7} = \frac{4}{7}$$

Work out the subtractions.

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

e) 
$$1 - \frac{7}{10} = \frac{3}{16}$$

**b)** 
$$1 - \frac{2}{5} = \boxed{\frac{3}{5}}$$

f) 
$$1 - \frac{9}{11} = \frac{2}{11}$$

c) 
$$1 - \frac{3}{5} = \boxed{\frac{2}{5}}$$

$$\mathbf{g}) \left| \frac{\mathbf{q}}{20} \right| = 1 - \frac{1}{20}$$

d) 
$$1 - \frac{4}{5} = \boxed{\frac{1}{5}}$$

**h)** 
$$1 - \frac{7}{8} = \boxed{\frac{1}{6}}$$

Compare answers with a partner.

Did you get the same answers? Discuss your methods.

5 Work out the additions.

a) 
$$1 + \frac{2}{5} = \frac{2}{5}$$

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

$$3 + \frac{2}{5} = 3\frac{2}{5}$$

$$7 + \frac{2}{5} = 7 \frac{4}{5}$$

**b)** 
$$15 + \frac{1}{3} = \boxed{15\frac{1}{3}}$$

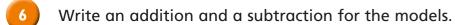
$$15 + \frac{2}{3} = 15\frac{4}{3}$$

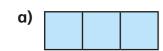
$$15 + \frac{3}{3} = 6$$

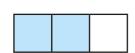
c) Is the statement true or false?

$$3 + \frac{5}{4} = 4\frac{1}{4}$$

Talk about it with a partner.





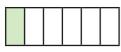


$$1+\boxed{\frac{2}{3}}\equiv 2-\boxed{\frac{1}{3}}$$









$$\boxed{2} + \boxed{\frac{1}{6}} \equiv \boxed{3} - \boxed{\frac{5}{6}}$$

c)



$$11 + \boxed{\frac{1}{4}} \equiv \boxed{12} - \boxed{\frac{3}{4}}$$

7 a) Dora and Rosie are trying to work out  $9 - \frac{4}{11}$ What mistakes have they made?

## Dora

$$9 - \frac{4}{11} = \frac{5}{11}$$

## Rosie

$$9 - \frac{4}{11} = \frac{99}{11} - \frac{4}{11}$$

So 
$$9 - \frac{4}{11} = \frac{95}{0}$$

Rosie has subbracted

the denominators.

- b) How would you calculate  $9 \frac{4}{11}$ Compare your method with a partner's.
- 8 Work out the subtractions.

a) 
$$3 - \frac{2}{5} = 2\frac{3}{5}$$

c) 
$$10 - \frac{3}{4} = 9\frac{1}{4}$$

b) 
$$8 - \frac{2}{3} = 7\frac{1}{3}$$

**d)** 
$$7 - \frac{10}{19} = 6$$

There are 6 episodes in a series.

Brett has watched  $\frac{3}{4}$  of the first episode.

Exactly how many episodes does he need to watch to finish the series?

54

Kim orders 3 pizzas. Each pizza is sliced into 8 slices.
Kim has 3 slices and Tom has 4
Exactly how much pizza is left?

