

Diving into Mastery



# Add and Subtract Fractions

twinkl

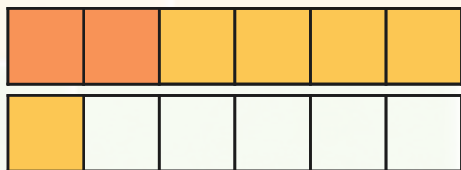
# Aim

- Add and subtract fractions with the same denominator and denominators that are multiples of the same number.

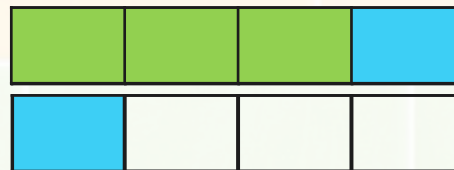


Use the bar models to complete the calculations.

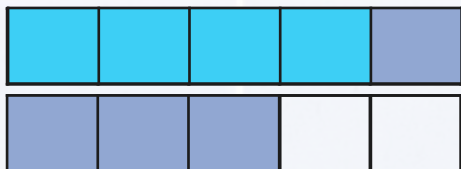
$$\frac{2}{6} + \frac{5}{6} =$$



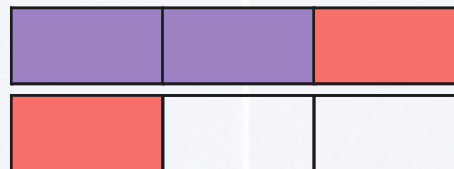
$$\frac{3}{4} + \frac{2}{4} =$$



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



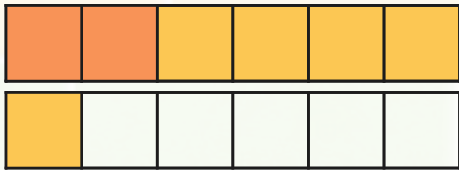
$$\frac{2}{3} + \frac{2}{3} =$$



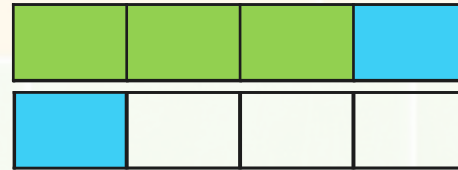


Use the bar models to complete the calculations.

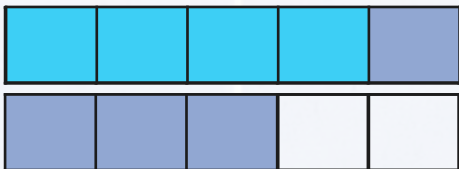
$$\frac{2}{6} + \frac{5}{6} = \frac{7}{6} = 1\frac{1}{6}$$



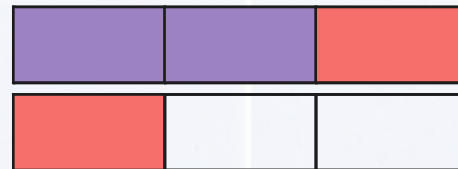
$$\frac{3}{4} + \frac{2}{4} = \frac{5}{4} = 1\frac{1}{4}$$



$$\frac{4}{5} + \frac{4}{5} = \frac{8}{5} = 1\frac{3}{5}$$



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





Use the bar models to complete the calculations.

$$\frac{3}{4} - \frac{2}{4} =$$



$$\frac{6}{7} - \frac{3}{7} =$$



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



$$1 - \frac{2}{6} =$$





Use the bar models to complete the calculations.

$$\frac{3}{4} - \frac{2}{4} = \frac{1}{4}$$



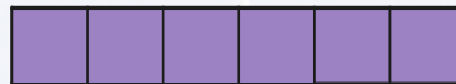
$$\frac{6}{7} - \frac{3}{7} = \frac{3}{7}$$



$$\frac{4}{6} - \frac{3}{6} = \frac{1}{6}$$



$$1 - \frac{2}{6} = \frac{4}{6}$$

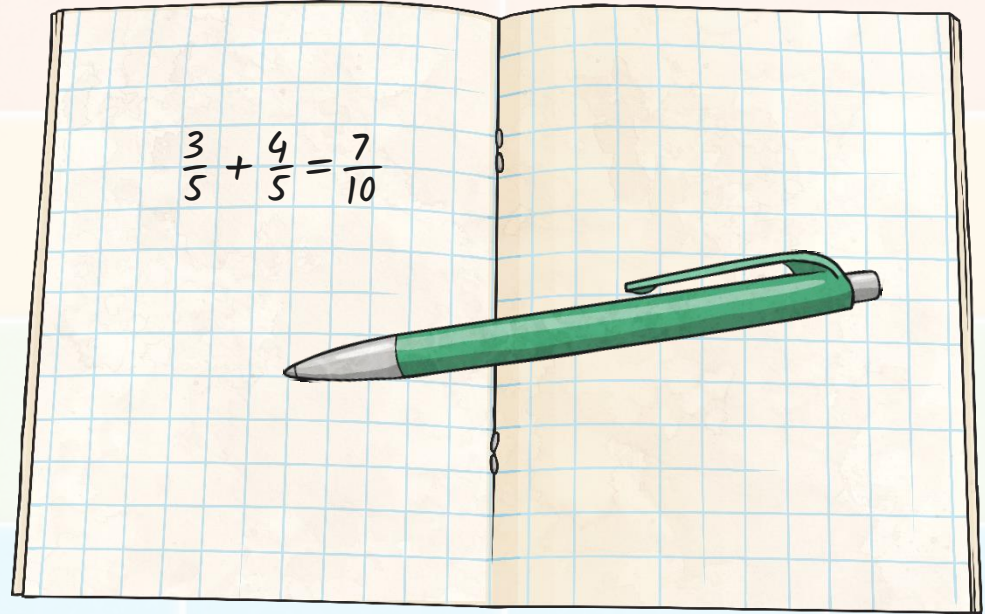




Marcus is adding fractions.  
Here is what he has written:

$$\frac{3}{5} + \frac{4}{5} = \frac{7}{10}$$

Marcus is incorrect.  
Explain why.

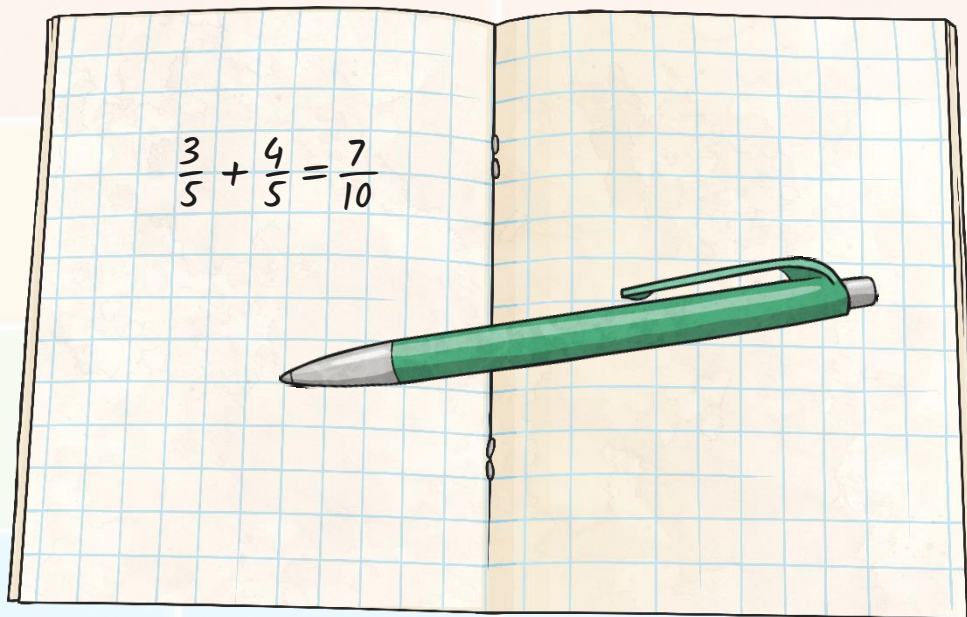




Marcus is adding fractions.  
Here is what he has written:

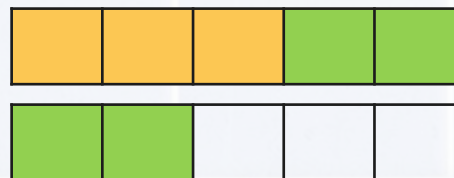
$$\frac{3}{5} + \frac{4}{5} = \frac{7}{10}$$

Marcus is incorrect.  
Explain why.



Marcus has added the denominators as well as the numerators.

When adding fractions, we only add the numerators. We can see from the bar model that  $\frac{3}{5} + \frac{4}{5} = \frac{7}{5}$  (which is equivalent to  $1\frac{2}{5}$ ).







$$\frac{?}{6} + \frac{?}{6} > \frac{?}{6} + \frac{?}{6}$$

Find 3 ways to make this statement true

Each fraction in the statement must be different and each must be greater than 0 but less than 1.





$$\frac{?}{6} + \frac{?}{6} > \frac{?}{6} + \frac{?}{6}$$

Find 3 ways to make this statement true

Each fraction in the statement must be different and each must be greater than 0 but less than 1.

Possible solutions include the following:

$$\frac{5}{6} + \frac{4}{6} > \frac{2}{6} + \frac{3}{6}$$

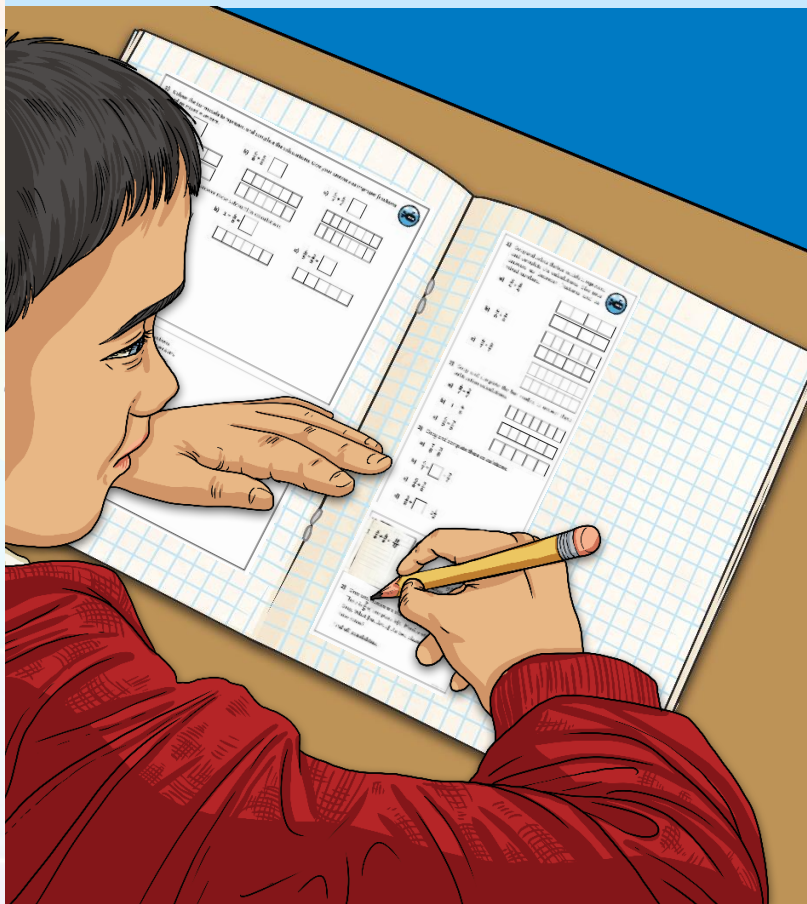
$$\frac{3}{6} + \frac{4}{6} > \frac{2}{6} + \frac{1}{6}$$

$$\frac{5}{6} + \frac{2}{6} > \frac{1}{6} + \frac{3}{6}$$



# Add and Subtract Fractions

Dive in by completing your own activity!



**1)**  $\frac{4}{5} + \frac{2}{5} = \frac{2}{5} + \frac{3}{5}$   
Find 3 different ways to make

**2)**  $\frac{7}{6} + \frac{2}{6} = \frac{8}{6} = \frac{7}{6}$   
Find all the possible ways to make  
Each fraction in the statement

**1)** Colour the bar models to represent and complete the calculations. Give your answers as improper fractions and as mixed numbers.

a)  $\frac{3}{4} + \frac{3}{4} = \square$       b)  $\frac{4}{6} + \frac{5}{6} = \square$       c)  $\frac{5}{7} + \frac{9}{7} = \square$

**2)** Complete the bar models to answer these subtraction calculations.

a)  $\frac{9}{7} - \frac{2}{7} = \square$       b)  $1 - \frac{4}{6} = \square$       c)  $\frac{5}{6} - \frac{2}{6} = \square$

**3)** Complete these calculations.

a)  $\frac{7}{8} - \frac{3}{8} = \square$   
b)  $\frac{6}{7} - \square = \frac{2}{7}$   
c)  $\frac{5}{6} - \frac{2}{6} = \square$   
d)  $\frac{3}{8} + \square = 1\frac{1}{2}$

**1)** Greg is adding fractions. Here is what he has written. Greg is incorrect. Prove it!

**2)** Greg and Monica are sharing two different pizzas. There is  $\frac{5}{6}$  of one pizza left. Monica ate more than Greg. What fraction of the two pizzas might they have eaten? Find all possibilities.