

Let's Learn!



Subtracting unlike fractions

1 Bottle A contained $\frac{3}{4}$ ℓ of milk. Tai poured $\frac{1}{6}$ ℓ of it into Bottle B. How much milk was left in Bottle A?

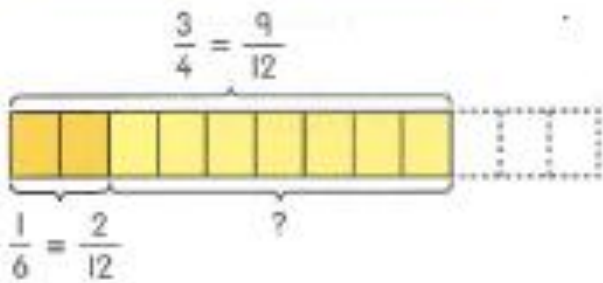
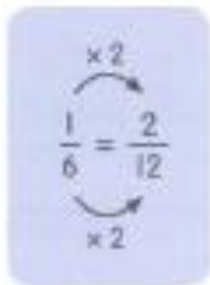
$$\frac{3}{4} - \frac{1}{6} = ?$$

List the multiples of the denominators, 4 and 6.

Multiples of 4: 4, 8, 12, 16, ...

Multiples of 6: 6, 12, 18, 24, ...

12 is the lowest common multiple of 4 and 6.



$$\begin{aligned} \frac{3}{4} - \frac{1}{6} &= \frac{9}{12} - \frac{2}{12} \\ &= \frac{7}{12} \ell \end{aligned}$$

$\frac{7}{12}$ ℓ of milk was left in Bottle A.

Subtract $\frac{1}{6}$ ℓ from $\frac{3}{4}$ ℓ of milk.

To subtract, convert $\frac{1}{6}$ and $\frac{3}{4}$ to like fractions first.



As 12 is the lowest common multiple, I draw a model with 12 units.

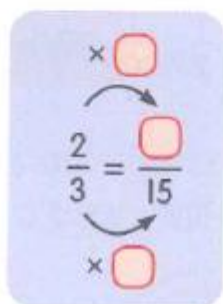
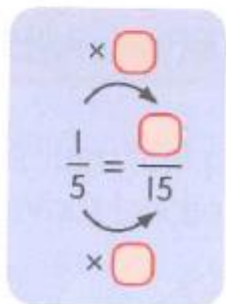


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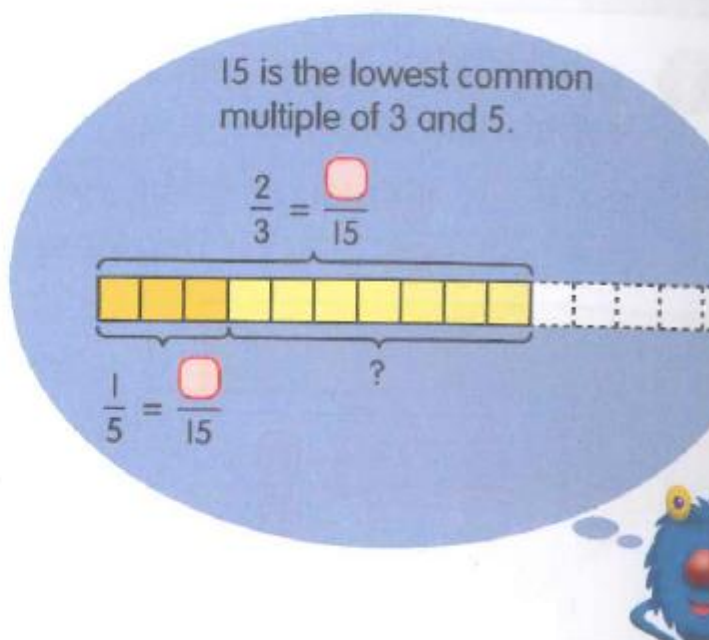
Fractions Unit 3 - Like and unlike fractions

LO: To subtract unlike fractions

2 Subtract $\frac{1}{5}$ from $\frac{2}{3}$.



$$\frac{2}{3} - \frac{1}{5} = \frac{\quad}{15} - \frac{\quad}{15}$$
$$= \frac{\quad}{15}$$



Common multiples:

5: 5 10 15

3: 3 6 9 12 15





$$\frac{2}{3} - \frac{1}{5} = \frac{10}{15} - \frac{3}{15}$$
$$= \frac{7}{15}$$


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Fractions Unit 3 - Like and unlike fractions


LO: To subtract unlike fractions

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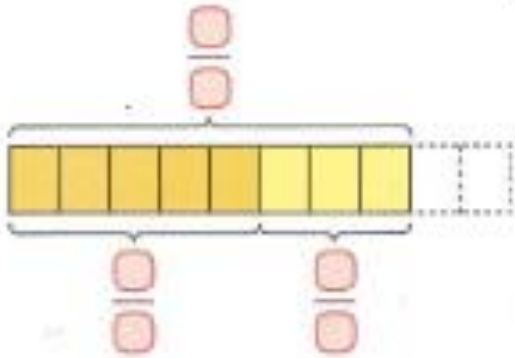
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Let's Practise!

- 5 Complete the model with the fractions $\frac{1}{2}$, $\frac{3}{10}$ and $\frac{4}{5}$. Then write two subtraction sentences.



- 6 Subtract. Draw models to help you.

a $\frac{5}{6} - \frac{1}{2}$

b $\frac{4}{5} - \frac{1}{4}$

- 7 Subtract. Express your answer in its simplest form.

a $\frac{5}{6} - \frac{1}{12}$

b $\frac{9}{10} - \frac{3}{5}$

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

d $\frac{11}{12} - \frac{7}{8}$

e $\frac{4}{5} - \frac{2}{7}$

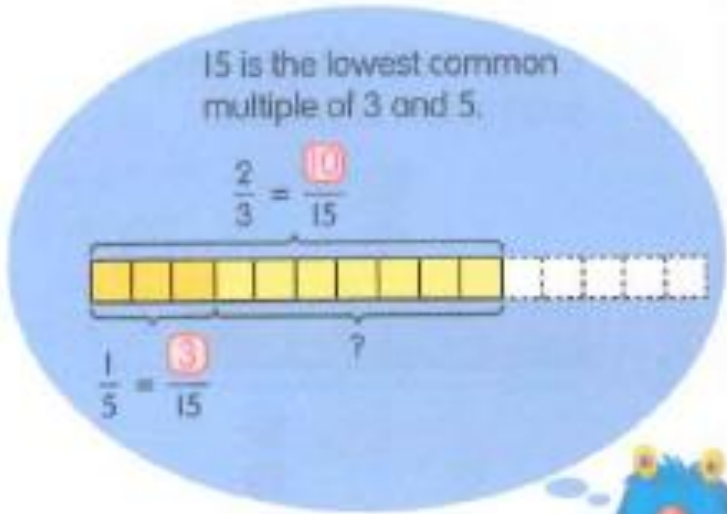
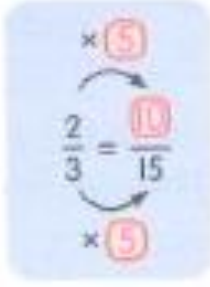
f $\frac{7}{9} - \frac{3}{4}$

g $\frac{4}{7} - \frac{1}{6}$

h $\frac{2}{3} - \frac{3}{8}$

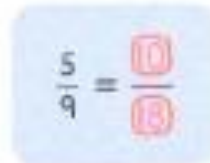
Answers

2 Subtract $\frac{1}{5}$ from $\frac{2}{3}$.



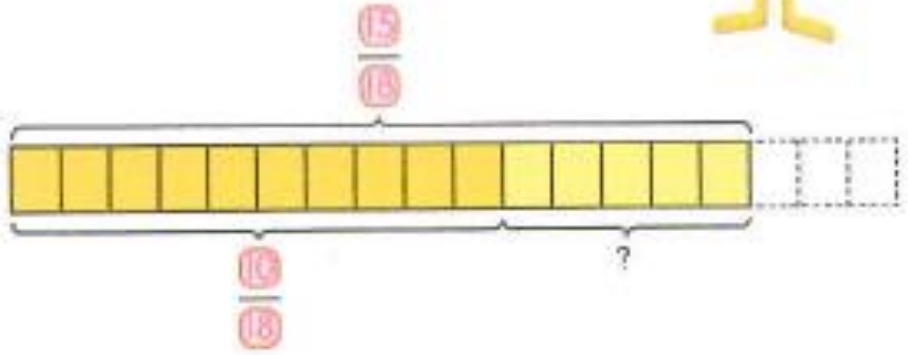
$$\frac{2}{3} - \frac{1}{5} = \frac{10}{15} - \frac{3}{15} = \frac{7}{15}$$

3 Find the difference between $\frac{5}{6}$ and $\frac{5}{9}$.



What is the lowest common multiple of 6 and 9?

$$\frac{5}{6} - \frac{5}{9} = \frac{15}{18} - \frac{10}{18} = \frac{5}{18}$$



Activity



4 Draw bars to show the difference between the fractions. Then find the difference between the fractions.

a $\frac{1}{2} - \frac{2}{7} \frac{3}{14}$

b $\frac{5}{6} - \frac{4}{9} \frac{7}{18}$

c $\frac{3}{4} - \frac{3}{5} \frac{3}{20}$