

Day 2

Tues 30th^{June} / Fri 3rd July 2020

Fractions Unit 3 - Like and unlike fractions

LO: To subtract unlike fractions

Steps to success

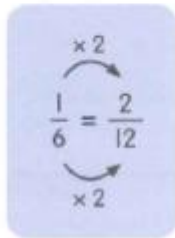
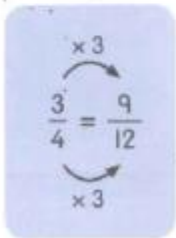
$$\frac{3}{4} - \frac{1}{6} = ?$$

List the multiples of the denominators, 4 and 6.

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

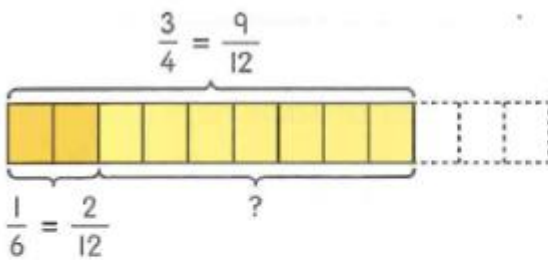
Multiples of 6: 6, 12, 18, 24, ...

12 is the lowest common multiple of 4 and 6.



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

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



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

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

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



Day 2

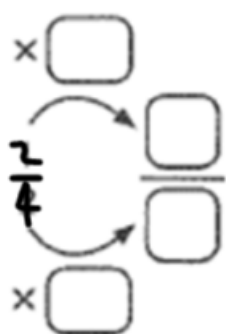
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Fractions Unit 3 - Like and unlike fractions

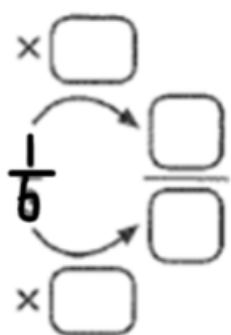
LO: To subtract unlike fractions

Here are two fractions $\frac{2}{4}$ and $\frac{1}{6}$.

Convert them to fractions with the same denominator.



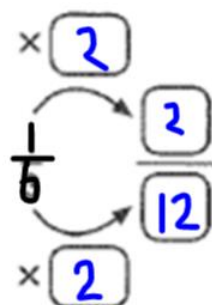
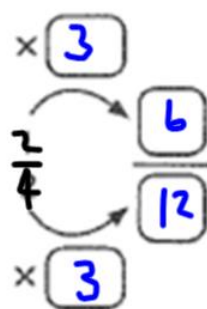
What is the first common multiple of 4 and 6?



Common multiples:

4: 4 8 12

6: 6 12



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LO: To subtract unlike fractions

4 Subtract. Express your answer in its simplest form where necessary.

1. $\frac{7}{12} - \frac{2}{4}$

List the multiples of 12 and 4:

4: 4 8 12

12: 12

What is the lowest common multiple?



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4 Subtract. Express your answer in its simplest form where necessary.

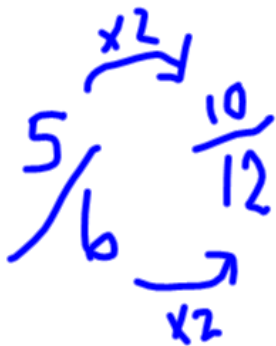
1. $\frac{5}{6} - \frac{2}{4}$

List the multiples of 6 and 4:

6: 6, 12

4: 4, 8, 12

What is the lowest common multiple?



$$\frac{10}{12} - \frac{6}{12} = \frac{4}{12}$$

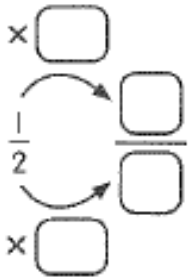
simplified: $\frac{1}{3}$



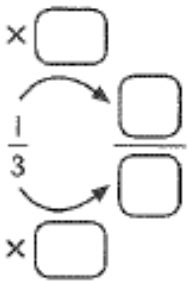
Date: _____

Practice 2 Subtracting unlike fractions

1 Here are two fractions: $\frac{1}{2}$ and $\frac{1}{3}$. Convert them to fractions with the same denominator.



What is the first common multiple of 2 and 3?



Write the equivalent fractions of $\frac{1}{2}$ and $\frac{1}{3}$ in the boxes.

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



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

Now complete this subtraction sentence.

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

$$= \underline{}$$

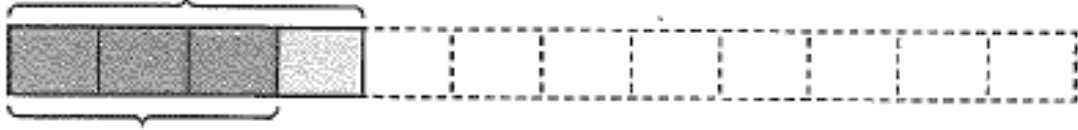
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Fractions Unit 3 - Like and unlike fractions

LO: To subtract unlike fractions

- 2 Here are two fractions: $\frac{1}{3}$ and $\frac{1}{4}$. Convert them to fractions with the same denominator. Write their equivalent fractions in the boxes.

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



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

Now complete this subtraction sentence.

$$\frac{1}{3} - \frac{1}{4} = \underline{\quad} - \underline{\quad}$$
$$= \underline{\quad}$$



- 3 Here are two fractions: $\frac{1}{2}$ and $\frac{1}{5}$. Convert them to fractions with the same denominator. Write their equivalent fractions in the boxes.

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



$$\frac{1}{5} = \boxed{}$$

Now complete this subtraction sentence.

$$\frac{1}{2} - \frac{1}{5} = \underline{\quad} - \underline{\quad}$$
$$= \underline{\quad}$$

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Fractions Unit 3 - Like and unlike fractions

LO: To subtract unlike fractions

4 Subtract. Express your answer in its simplest form where necessary.

a $\frac{7}{12} - \frac{2}{4} =$

b $\frac{7}{9} - \frac{1}{3} =$

c $\frac{5}{6} - \frac{1}{12} =$

d $\frac{4}{5} - \frac{1}{3} =$

e $\frac{2}{3} - \frac{3}{8} =$

f $\frac{7}{9} - \frac{1}{4} =$

g $\frac{8}{10} - \frac{3}{4} =$

h $\frac{5}{12} - \frac{1}{9} =$

Hot

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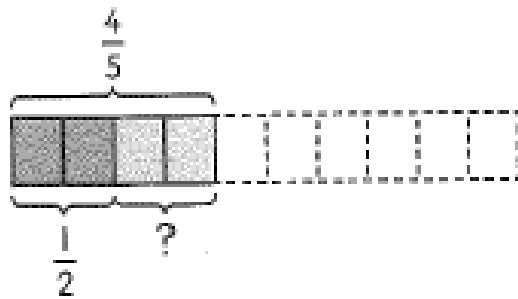
Fractions Unit 3 - Like and unlike fractions

LO: To subtract unlike fractions

Maths Journal

Millie drew a model to find $\frac{4}{5} - \frac{1}{2}$.

She drew the model incorrectly. Explain her mistakes. Then draw the correct model to find the answer.



Millie's model is wrong because:

The correct model is:

Practice 2 Subtracting unlike fractions

1 Here are two fractions: $\frac{1}{2}$ and $\frac{1}{3}$. Convert them to fractions with the same denominator.

$$\begin{array}{l} \times \boxed{3} \\ \frac{1}{2} \rightarrow \frac{\boxed{3}}{\boxed{6}} \\ \times \boxed{3} \end{array}$$

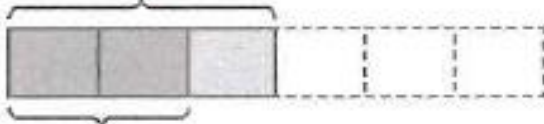
$$\begin{array}{l} \times \boxed{2} \\ \frac{1}{3} \rightarrow \frac{\boxed{2}}{\boxed{6}} \\ \times \boxed{2} \end{array}$$

What is the first common multiple of 2 and 3?



Write the equivalent fractions of $\frac{1}{2}$ and $\frac{1}{3}$ in the boxes.

$$\frac{1}{2} = \boxed{\frac{3}{6}}$$



$$\frac{1}{3} = \boxed{\frac{2}{6}}$$

Now complete this subtraction sentence.

$$\begin{aligned} \frac{1}{2} - \frac{1}{3} &= \frac{\boxed{3}}{\boxed{6}} - \frac{\boxed{2}}{\boxed{6}} \\ &= \frac{\boxed{1}}{\boxed{6}} \end{aligned}$$

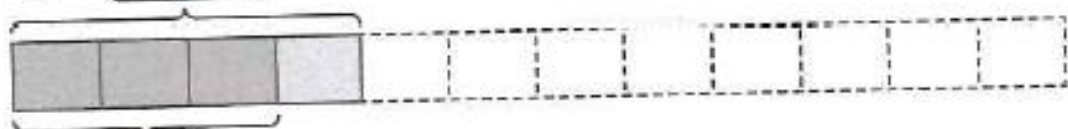
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Fractions Unit 3 - Like and unlike fractions

LO: To subtract unlike fractions

- 2 Here are two fractions: $\frac{1}{3}$ and $\frac{1}{4}$. Convert them to fractions with the same denominator. Write their equivalent fractions in the boxes.

$$\frac{1}{3} = \boxed{\frac{4}{12}}$$



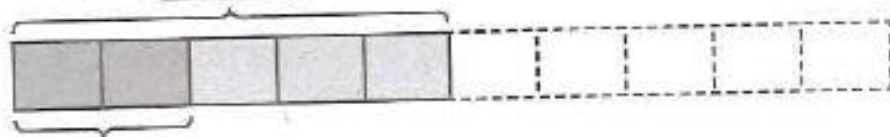
$$\frac{1}{4} = \boxed{\frac{3}{12}}$$

Now complete this subtraction sentence.

$$\begin{aligned} \frac{1}{3} - \frac{1}{4} &= \frac{4}{12} - \frac{3}{12} \\ &= \frac{1}{12} \end{aligned}$$

- 3 Here are two fractions: $\frac{1}{2}$ and $\frac{1}{5}$. Convert them to fractions with the same denominator. Write their equivalent fractions in the boxes.

$$\frac{1}{2} = \boxed{\frac{5}{10}}$$



$$\frac{1}{5} = \boxed{\frac{2}{10}}$$

Now complete this subtraction sentence.

$$\begin{aligned} \frac{1}{2} - \frac{1}{5} &= \frac{5}{10} - \frac{2}{10} \\ &= \frac{3}{10} \end{aligned}$$

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LO: To subtract unlike fractions

4 Subtract. Express your answer in its simplest form where necessary.

$$\begin{aligned} \text{a} \quad \frac{7}{12} - \frac{2}{4} &= \frac{7}{12} - \frac{6}{12} \\ &= \frac{1}{12} \end{aligned}$$

$$\begin{aligned} \text{b} \quad \frac{7}{9} - \frac{1}{3} &= \frac{7}{9} - \frac{3}{9} \\ &= \frac{4}{9} \end{aligned}$$

$$\begin{aligned} \text{c} \quad \frac{5}{6} - \frac{1}{12} &= \frac{10}{12} - \frac{1}{12} \\ &= \frac{9}{12} \\ &= \frac{3}{4} \end{aligned}$$

$$\begin{aligned} \text{d} \quad \frac{4}{5} - \frac{1}{3} &= \frac{12}{15} - \frac{5}{15} \\ &= \frac{7}{15} \end{aligned}$$

$$\begin{aligned} \text{e} \quad \frac{2}{3} - \frac{3}{8} &= \frac{16}{24} - \frac{9}{24} \\ &= \frac{7}{24} \end{aligned}$$

$$\begin{aligned} \text{f} \quad \frac{7}{9} - \frac{1}{4} &= \frac{28}{36} - \frac{9}{36} \\ &= \frac{19}{36} \end{aligned}$$

$$\begin{aligned} \text{g} \quad \frac{8}{10} - \frac{3}{4} &= \frac{16}{20} - \frac{15}{20} \\ &= \frac{1}{20} \end{aligned}$$

$$\begin{aligned} \text{h} \quad \frac{5}{12} - \frac{1}{9} &= \frac{15}{36} - \frac{4}{36} \\ &= \frac{11}{36} \end{aligned}$$

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Fractions Unit 3 - Like and unlike fractions

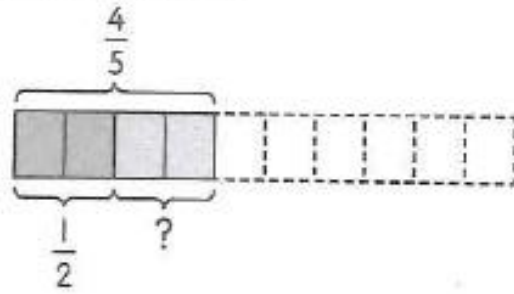
LO: To subtract unlike fractions

Date: _____

Maths Journal

1 Millie drew a model to find $\frac{4}{5} - \frac{1}{2}$.

She drew the model incorrectly. Explain her mistakes. Then draw the correct model to find the answer.



Millie's model is wrong because:

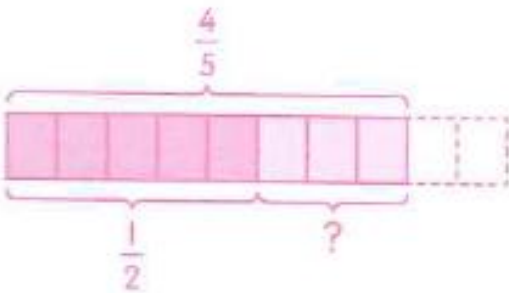
$$\frac{4}{5} = \frac{8}{10}$$

8 out of 10 parts should be shaded instead.

$$\frac{1}{2} = \frac{5}{10}$$

5 out of 10 parts should be taken away.

The correct model is:



Total = 10 parts

Remainder = 3 parts

Answer = $\frac{3}{10}$