



L.O. To solve problems  
involving fractions of  
amounts

# Starter:

Find 1,000 more and 1,000 less for the following numbers:

←5,000→

←3,345→

←9,999→

←10,999→

←13,009→

# Starter:

Find 1,000 more and 1,000 less for the following numbers:

$$4000 \leftarrow 5,000 \rightarrow 6000$$

$$2345 \leftarrow 3,345 \rightarrow 4345$$

$$8,999 \leftarrow 9,999 \rightarrow 10,999$$

$$9,999 \leftarrow 10,999 \rightarrow 11,999$$

$$12,009 \leftarrow 13,009 \rightarrow 14,009$$

*Answer*

# Problem of the Day

Write in the missing number.



$$8.5 + 14.7 = 10.2 +$$

# Problem of the Day

Write in the missing number.



$$8.5 + 14.7 = 10.2 +$$

13.00

Answer

What will we use to solve these problems?

Remember  
to use



**R** **U** **C** **S** **A** **C**

Read Underline Choose Solve Answer Check

when calculating  
mathematical problems

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- 
- ▶ There are 30 children in a class.  $\frac{3}{5}$  of the children are girls.
  - ▶ How many girls are there in the class?

# Answer

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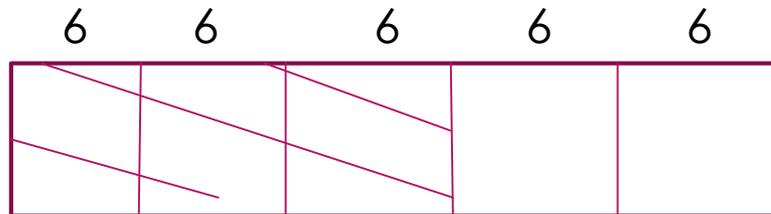
Answer

$\frac{3}{5}$  of 30

30 divided by 5 = 6

$6 \times 3 = \underline{18 \text{ girls}}$

There are 18 girls in the class.



- 
- ▶ Alice has £72. She spends  $\frac{3}{8}$  of the money on clothes.
  - ▶ How much money does she have left?

# Answer

- ▶ Alice has £72. She spends  $\frac{3}{8}$  of the money on clothes.
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Answer

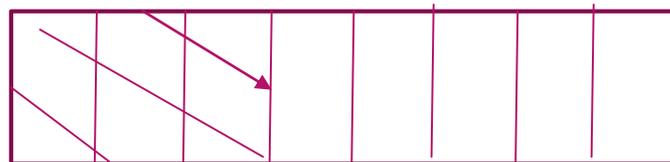
72 divided by 8 = 9

$9 \times 3 = 27$

She spends £27

Money left =  $72 - 27$

Therefore she has £45 left



9 9 9 9 9 9 9 9

- 
- ▶ 4/10 of the 120 felt tips in the class have lost their lids and 2/12 are black.
  - ▶ How many felt tips have lost their lids?
  - ▶ How many are black that have lost lids?

# Answer

- ▶  $\frac{4}{10}$  of the 120 felt tips in the class have lost their lids and  $\frac{2}{12}$  are black.
- ▶ How many felt tips have lost their lids? How many are black?
- ▶ 120 divided by 10 =  $12 \times 4 = \underline{48}$  felt tips have lost their lids
- ▶ Black =  $\frac{2}{12}$  of 48 =  $4 \times 2 = \underline{8}$  felt tips are black

Answer

- 
- ▶ There are 40 people on a train.  $\frac{1}{8}$  get off at the 1<sup>st</sup> stop.  $\frac{2}{5}$  get off at the 2<sup>nd</sup> stop.
  
  - a) How many people got off at the 1<sup>st</sup> stop?
  - b) How many people got off at the 2<sup>nd</sup> stop?
  - c) How many people are still on the train?





# Answers

Remember  
to use



# Answer

3. 27 of the lemurs at the safari park are ring-tailed lemurs.  $\frac{3}{9}$  of those make up one family. How many of the ring-tailed lemurs are related?

3	3	3	3	3	3	3	3	3
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$\frac{3}{9}$  of 27     $3 \times 3 = 9$     or     $3 + 3 + 3 = 9$     9 of the ring-tailed lemurs are related.

4. A group of 60 children went on a school trip to the safari park.  $\frac{7}{10}$  of the children had never been there before. For how many children was this their first visit?

6	6	6	6	6	6	6	6	6	6
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$\frac{7}{10}$  of 60     $6 \times 7 = 42$     or     $6 + 6 + 6 + 6 + 6 + 6 + 6 = 42$     42 of the children were on their first visit to the safari park

# TASK continued

- ▶ 3) 27 of the lemurs at the safari park are ring-tailed lemurs.  $\frac{3}{9}$  of those make up one family. How many of the ring-tailed lemurs are related?
- ▶ 4) There are 2 species of flamingos living in the safari park, Caribbean and Chilean. Of the 72 flamingos,  $\frac{4}{9}$  of them are Caribbean, which are the brightest pink of all flamingos. How many Caribbean flamingos does the safari park have?

# Answer

- ▶ 3)  $\frac{3}{9}$  of 27  $3 \times 3 = 9$  or  $3 + 3 + 3 = 9$  of the ring-tailed lemurs are related.
  
- ▶ 4)  $\frac{4}{9}$  of 72 = 32 flamingos

# Challenge

- 5 Jane watched a film that was 1 hour long.  $\frac{5}{6}$  of the way through the film, the doorbell rang. She paused the film to answer the door and it was the postman with a parcel.
- How many minutes of the film had she watched before the postman arrived?
  - How many minutes of the film did she have left to watch?
- 6 A cake maker is icing a wedding cake that needs three different sized tiers. The icing weighs 2000g. He uses  $\frac{6}{10}$  of the icing for the bottom tier,  $\frac{3}{10}$  of the icing for the middle tier and  $\frac{1}{10}$  of the icing for the top tier.
- What is the weight of icing in the bottom tier?
  - What is the weight of icing in the middle tier?
  - What is the weight of icing in the top tier?

# Challenge

- 5 Jane watched a film that was 1 hour long.  $\frac{5}{6}$  of the way through the film, the doorbell rang. She paused the film to answer the door and it was the postman with a parcel.
- a. How many minutes of the film had she watched before the postman arrived? 50 minutes
  - b. How many minutes of the film did she have left to watch? 10 minutes
- 6 A cake maker is icing a wedding cake that needs three different sized tiers. The icing weighs 2000g. He uses  $\frac{6}{10}$  of the icing for the bottom tier,  $\frac{3}{10}$  of the icing for the middle tier and  $\frac{1}{10}$  of the icing for the top tier.
- a. What is the weight of icing in the bottom tier? 1200g
  - b. What is the weight of icing in the middle tier? 600g
  - c. What is the weight of icing in the top tier?  $2000 - (1200 + 600) = 200\text{g}$



Answer

# Plenary



The school kitchen needs to buy carrots for lunch.

A large bag has 200 carrots and a medium bag has  $\frac{3}{5}$  of a large bag.

Mrs Rose says,

I need 150 carrots so I will have to buy a large bag.



Is Mrs Rose correct?  
Explain your reasoning.