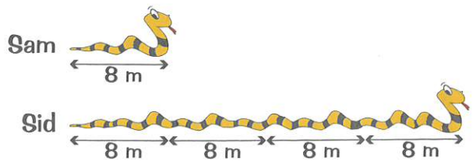
Solving Calculation Problems

Work Out What Calculation You Need to Do

EXAMPLE: Sid is four times as long as Sam. Sam is eight metres long. How long is Sid?

You need to work out what 4 lots of 8 are.
This is multiplication.



$4 \times 8 = 32$

So Sid is 32 metres long.

EXAMPLES: What are the missing numbers below?

$\square + 8 = 29$

Adding is the inverse of subtracting, so you could write this question as:

$29 - 8 = ?$

So the missing number must be 21.

$\square \div 8 = 6$

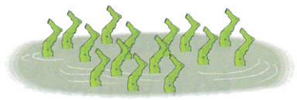
Dividing is the inverse of multiplying, so you could write this question as:

$6 \times 8 = ?$

If you look at your 8 times table, $6 \times 8 = 48$.
So the missing number must be 48.

Pictures Can Help Solve Problems

EXAMPLE:



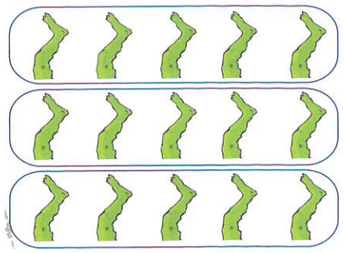
Swamp monsters have 5 legs each.
Jim can see 15 legs sticking out of the swamp.
How many swamp monsters are there?

You need to work out how many 5s go into 15.
It's a division:

$15 \div 5 = 3$

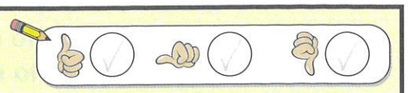
There are 3 swamp monsters.

You can check with a picture.



3 lots of 5 go into 15.

"I can solve problems by choosing the calculations I should do."



Solving Calculation Problems

Some Problems Need More Than One Step

EXAMPLE: Mrs Smith needs 64 party hats. Party hats are sold in packs of 8 and each pack costs £4. How much does Mrs Smith spend?

You need to do more than one calculation to solve this problem.

1 First, work out how many packs of hats Mrs Smith needs to buy.

The number of hats in a pack.

$64 \div 8 = 8$

The number of hats she needs.

So Mrs Smith has to buy 8 packs of hats.

You can check your answer:
8 packs × 8 hats = 64 hats in total.

2 Then find out how much money she spends.

The number of packs she needs.

$8 \times 4 = 32$

The price of one pack.

So Mrs Smith spends £32 in total.

EXAMPLE: Ellie and her two brothers have £15 to share equally between them. Ellie buys a book for £3. How much money does she have left?

First, work out how much money Ellie started with.

£15 shared between three people is

$15 \div 3 = 5$

So Ellie and her brothers have £5 each.

Then take away what she spent on the book.

$5 - 3 = 2$

So she has £2 left.

"I can solve problems by choosing the calculations I should do."