

8. For each of the following problems, **make up a statement (equation)** involving $+$, $-$, \times or \div along with a $*$ to stand for the unknown quantity and find the value of $*$ each time.

- a A box of chocolates had 18 caramels in it .
After Berti had eaten some caramels he found that there were still 3 left.
How many caramels had Berti eaten ? (start with $18 - * = \dots$)



- b  7 euro coins weigh 119 grams.
What does 1 euro coin weigh ? (**Make up an equation first**).

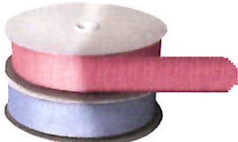
- c When a tray of lettuce was shared between 8 women, each received 9 lettuces.
How many were originally on the tray ?



- d  When a ham and a chicken were weighed their total weight was 3.2 kg.
If the chicken weighed 1.4 kg, what was the weight of the ham ?

- e 8 sachets of lemonsip cost £7.52. What is the cost per sachet ?



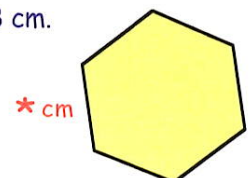
- f  When a 72 cm piece of ribbon is cut into identical lengths,
the length of each piece is 6 cm.
How many cut pieces of ribbon are there ?

- g Every time Mr Galbraith is asked his age, he tells a white lie and says he's 51.
If he actually takes 9 years off his true age, what really is his age ?



9. The **total distance** around the outside of this hexagon of side $*$ cm is 48 cm.

- a If all the sides are the same length, make up an equation using this information.
b Solve the equation to find the length of a side.



10.  An aircraft was flying at 35 000 feet when it dropped suddenly by $*$ feet to 29 500 feet.

- a Make up an equation using $*$.
b Solve the equation to find by how many feet the aircraft had dropped.

11. • Think of a number between 1 and 20 but don't tell anyone what it is.

• Double your number then add on 10.

• Now half your answer and take away 5.

I'll bet the answer you get is the same as the number you started with. True ?

Try to explain, (possibly using $*$ to represent your original number), why this always works.

