1. A party planner orders b blue, g gold, p purple, r red, s silver and w white balloons.

   Here is a list of what he orders: $b = 15$
   $g = 50$
   $p = 30$
   $r = 75$
   $s = 40$
   $w = 20$

   Complete this table for the number of balloons.

Price	expression	calculation
Regular	$b + p + r + w$	15 + 30 + 75 + 20
Premium		50 + 40

2. A gardener buys some bulbs.

   He buys a packets of allium, c packets of crocus and t packets of tulip bulbs.

   The gardener wrote $a = 5$, $c = 15$ and $t = 65$

   To work out the total number number of packets of bulbs, B, he bought he could:

   (i) do the **calculation** .....

   (ii) use the **formula** .....

   (iii) use the **expression** .....

   You may use $B = a + c + t$ $a + c + t$ 5 + 15 + 65

3. (a) A multipack contains b packs of barbecue flavour crisps, and c packs of cheese and onion flavour crisps.
   Write down an expression for the total number of packs of crisps in the multipack.

   (b) A multipack contains b packs of barbecue flavour crisps, c packs of cheese and onion flavour crisps and r packs of ready salted crisps.
   Write down an expression for the total number of packs of crisps in the multipack.

4. Here is a word formula

Total number of rolls	=	Number of rolls in each packet	×	Number of packets of rolls

   Write an algebra formula to calculate r, the total number of rolls in p packets of 4 rolls.

5. If supermarkets don't reduce the price of food close enough to the sell by date, they often have to throw food away.

   A supermarket worker has to throw away some fruit.

   First she has to throw away 15 bags of apples.

   Each bag contains 6 apples.

   (a) Write down a **calculation** to work out the total number of apples she throws away.

   Next she throws away b bunches of bananas.

   There are 7 bananas in a bunch.

   (b) Write down an **expression**, in terms of b, for the total number of bananas she throws away.

   Then she throws away 14 punnets of peaches.

   There are p peaches in a punnet.

   She throws away a total of T peaches.

   (c) Write down a **formula** for T, in terms of p.

6. In this question you will turn a situation into a word formula and into an algebra expression.

(a) Read the situation.

A cook buys 4 box of eggs.

There are e eggs in a box.

Write an expression, in terms of e, for the total number of eggs bought.

(b) Complete these:

THING: ..... CONTAINER: .....

egg, box

(c) Complete the word formula with the correct words.

Total number of THINGs	=	Number of CONTAINERs	×	Number of THINGs in one CONTAINER
Total number of	=	Number of	×	Number of ..... in one .....

algebra expression is ☐ × ☐

(d) Complete the algebra expression (above) with the correct letters or numbers.

(e) Simplify the algebra expression and write it on the answer line.

7. (a) A hotel buys some towels.
They buy 7 packets of hand towels.

Each packet contains h hand towels.
They buy a total of T hand towels.

Write a formula for T, in terms of h.

(b) A hotel buys some towels.
They buy b packets of bath towels.

Each packet contains 6 bath towels.

Write an expression, in terms of b, for the total number of bath towels the hotel buys.

8. Not written yet

9. (a) The catering manager has n packets of apples.
There are 6 apples in a packet.

(i) Write down an expression, in terms of n, for the total number of apples the catering manager has.

11 of the apples are used to make up packed lunches for a school trip.

(ii) Write down an expression, in terms of n, for the number of apples the catering manager has now.

(b) Layla has written 3 numbers on a piece of paper.
She says "The first number is n"
She says "The second number is 4 times the first number"

(i) Write down an expression, in terms of n, for Layla's second number.

She says "The third number is 6 less than the second number"

(ii) Write down an expression, in terms of n, for Layla's third number.

(c) Harrison is y years old.
Harrison's grandpa is 6 times as old as Harrison.

(i) Write down an expression, in terms of y, for the age of Harrison's grandpa.

Harrison's sister is 46 years younger than Harrison's grandpa.

(ii) Write down an expression, in terms of y, for the age of Harrison's sister.

10. A hotel buys some glasses.

They buy m packets of wine glasses.
They buy n packets of water glasses.

Each packet of wine glasses contains 4 glasses.

Each packet of water glasses contains 6 glasses.

They buy a total of T glasses.

Write a formula for T, in terms of m and n.