

1. (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.
2. (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 h packets of hand towels.

Each packet contains 6 hand towels.
They buy a total of T hand towels.

Write a formula for T , in terms of h .
- (c) A hotel buys some towels.
They buy h packets of hand towels.

Each packet contains 6 hand towels.

Write an expression, in terms of h , for the total number of hand towels the hotel buys.
- (d) A hotel buys some towels.
They buy 7 packets of hand towels.

Each packet contains h hand towels.

Write an expression, in terms of h , for the total number of hand towels the hotel buys.
3. (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.

4. (a) 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 .

- (b) A hotel buys some glasses.

They buy 3 packets of wine glasses.

They buy 4 packets of water glasses.

Each packet of wine glasses contains m glasses.

Each packet of water glasses contains n glasses.

They buy a total of T glasses.

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

- (c) {as part (a) except the instruction line says ...}

Write an expression, in terms of m and n , for the total number of glasses the hotel buys.

- (d) {as part (b) except the instruction line says ...}

Write an expression, in terms of m and n , for the total number of glasses the hotel buys.

5. Here are the first five terms of a Fibonacci sequence.

5 2 7 9 16

The rule to continue a Fibonacci sequence is,

the next term in the sequence is the sum of the two previous terms.

(i) Find the 7th {6th or 8th or 9th or 10th} term of the sequence.

The first four terms of a different Fibonacci sequence are

(a) q q $2q$ $3q$

Show that the 8th term of this sequence is $21q$

(b) j k $j + k$ $j + 2k$

Show that the 7th {or 6th or 8th or 9th } term of this sequence is $3j + 5k$