Correspondence problems

1. A canteen has 2 types of bread and a choice of 3 sandwich fillings.

<table>
<thead>
<tr>
<th>Bread</th>
<th>Fillings</th>
</tr>
</thead>
<tbody>
<tr>
<td>white</td>
<td>cheese</td>
</tr>
<tr>
<td>brown</td>
<td>tuna</td>
</tr>
<tr>
<td></td>
<td>chicken</td>
</tr>
</tbody>
</table>

a) List the different sandwiches that can be made. One has been done for you.

- cheese on white
- tuna on white
- chicken on white

b) Complete the multiplication to represent the number of different combinations of bread and filling.

\[ 2 \times 3 = 6 \]

Complete the sentence.

There are \(6\) combinations.

c) How many combinations would there be if there were 4 choices of sandwich filling?

2. A pizzeria offers a choice of bases and toppings.

<table>
<thead>
<tr>
<th>Pizza base</th>
<th>Toppings</th>
</tr>
</thead>
<tbody>
<tr>
<td>deep pan</td>
<td>mushrooms</td>
</tr>
<tr>
<td>thin</td>
<td>chicken</td>
</tr>
<tr>
<td></td>
<td>onion</td>
</tr>
<tr>
<td></td>
<td>peppers</td>
</tr>
<tr>
<td></td>
<td>sweetcorn</td>
</tr>
</tbody>
</table>

Complete the multiplication to work out how many different combinations of pizza there are.

\[ 2 \times 5 = 10 \]

Complete the sentence.

There are 10 combinations of pizza.

3. Mo visits the funfair.

He buys a ticket that allows him to choose 1 ride and 1 game at the fair.

- Rides: Big dipper, Dodgems, Carousel
- Games: Hook-a-duck, Basketball, Coconut shy, Lucky dip, Test-your-strength

a) Is Mo correct? **No**

There are 8 different possible choices of rides and games.
Here are the activity choices available at Summer Camp.

<table>
<thead>
<tr>
<th>Sport</th>
<th>Arts and crafts</th>
<th>Outward bound</th>
</tr>
</thead>
<tbody>
<tr>
<td>football</td>
<td>painting</td>
<td>wall climbing</td>
</tr>
<tr>
<td>tennis</td>
<td>pottery</td>
<td>kayaking</td>
</tr>
<tr>
<td>golf</td>
<td>mosaics</td>
<td>abseiling</td>
</tr>
<tr>
<td>origami</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Each child is allowed to choose 3 activities per day:
1 sport, 1 arts and crafts and 1 outward bound.

a) How many activity combinations are there?

b) Due to a flooded pitch, football is cancelled. How many combinations are now possible?

There are **36** combinations.

4

Aisha has 3 headbands and 5 hair slides.
Kim has 2 headbands and 6 hair slides.
Who has more choices of combinations for wearing one headband and 1 slide?

**Aisha** has more choices.

Talk about it with a partner.

5

Explain your answer.

He had done $3 + 5$ not $3 \times 5$

b) List all the different choices Mo can make.

Mo can make **15** different choices.

6

Tom and Esther are building a snowman.
They have a choice of 5 hats, 4 scarves and 2 pairs of gloves to dress their snowman.

How many different combinations are possible?

$5 \times 4 \times 2 = 40$

There are **40** combinations.