a) For breakfast, Kian can eat toast or porridge and drink either orange or pineapple juice.

Write down the possible combinations that Kian can have for breakfast.

## TO TPi PoO PoPi

b) Three people are picked from a group of mixed group of men and women.

Write down the possible combinations that could be chosen.

## MMM MMW MWW WWW

c) A restaurant serves chicken, gammon or beef with either roast potatoes, mash or dauphinoise.

Write down the possible combinations that the restaurant can serve.

## CR CM CD GR GM GD BR BM BD

d) Jack and Ken buy a sandwich. The choice of sandwiches available are either Ham, Cheese or Beef and can be served with salad, chips or new potatoes. Write the possible combinations of sandwich and accompaniment.

## HS HC HN CS CC CN BS BC BN

e) The digits $1,2,3$ and 4 can be written in a number of ways?

Use the space below to list the combinations and state how many combinations there are.

| 1234 | 1243 | 1324 | 1342 | 1423 | 1432 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 2134 | 2143 | 2314 | 2341 | 2413 | 2431 |
| 3124 | 3142 | 3214 | 3241 | 3412 | 3421 |
| 4123 | 4132 | 4213 | 4231 | 4312 | 4321 |

f) The digits $2,4,6$ and 7 can be written in a number of ways?

Use the space below to list the combinations and state how many odd numbers can be created.

$$
\begin{array}{llllll}
2467 & 2476 & 2647 & 2674 & 2746 & 2764 \\
4267 & 4276 & 4627 & 4672 & 4726 & 4762 \\
6247 & 6274 & 6427 & 6472 & 6724 & 6742 \\
7246 & 7264 & 7426 & 7462 & 7624 & 7642
\end{array}
$$

g) By choosing two of the digits 2,4,5 and 6, lots of two digit numbers can be created?

Use the space below to list the combinations and state how even number combinations there are.

## 242526424546 <br> 525456 <br> 626465

## Exam question:

Here are four tiles. Each tile has a number on it. They can be placed down in any order. How many different even numbers can be made?

