Match-Up — Product Rule for Counting

1	How many ways are there of arranging the letters in the word NUMBER?
2	How many ways are there of rearranging the numbers 2, 3, 4 and 5 to make a four-digit number?
3	Five people are queueing for a bus. How many different ways can the people be arranged in the queue?
4	A door code consists of three digits. Each digit can be any number from 1 to 9. How many possible codes are there?
5	A menu has a choice of 5 starters, 6 mains and 5 deserts. How many possible ways are there to choose a 3-course meal?
6	How many four-digit even numbers can be made using the numbers 5, 6, 7 and 8 once each?
7	A safe has a three-digit code. Each digit can be any number from 1 to 9, but the same number cannot be used more than once. How many possible codes are there?
8	Class 7Z contains 24 students. How many different ways are there of choosing a form captain and deputy form captain?
9	A dog creche has 24 dogs. A staff member wants to take two dogs for a walk. How different ways are there to choose the two dogs?
10	At a wedding there are six bridesmaids and four page boys. The photographer chooses two bridesmaids and one page boy for a photo. How many different ways are there of choosing?

A	120
B	504
C	12
D	60
E	729
F	720
G	552
H	276
I	24
J	150

1	2	3	4	5	6	7	8	9	10
F	I	A	E	J	C	B	G	H	D