The Product Rule for Counting *fluency*

One item is chosen from each group. How many different ways are there?

1 groups of 3 and 4

2 groups of 5 and 6

3 groups of 2 and 9

4 groups of 7 and 8

5 groups of 10 and 4

6 groups of 12 and 5

One item is chosen from each group. How many different ways are there?

7 groups of 2, 3 and 4

8 groups of 5, 2 and 6

9 groups of 3, 3 and 3

10 groups of 4, 5 and 10

11 groups of 6, 2 and 7

12 groups of 8, 3 and 5

How many different codes? Digits can repeat.

13 2 digits, each 0 to 9

14 3 digits, each 0 to 9

15 4 digits, each 0 to 9

16 3 digits, each 1 to 5

17 2 digits, each 1 to 6

18 4 digits, each 1 to 3

How many different codes? Digits cannot repeat.

19 2 digits, each 0 to 9

20 3 digits, each 0 to 9

21 3 digits, each 1 to 5

22 4 digits, each 1 to 6

23 2 digits, each 1 to 4

24 5 digits, each 1 to 9

How many different codes? Letters are from A to Z, digits 0 to 9, and both can repeat.

25 1 letter then 1 digit

26 1 letter then 2 digits

27 2 letters then 1 digit

28 2 letters then 2 digits

29 1 letter then 3 digits

30 3 letters then 2 digits