

Counting Puzzles

Practice

Orders and handshakes.

Name: _____

Date: _____

Think: Every handshake is counted twice if you count per person — so divide by 2.

1. Solve each one. Reason it out!

1) A café menu has 2 starters, 2 mains, and 2 desserts.
How many different three-course meals are possible?

3) A party menu has 5 starters, 3 mains, and 3 desserts.
How many different three-course meals are possible?

5) A shop sells 3 kinds of hats and 7 kinds of scarves.
How many one-of-each combinations are there?

7) A café menu has 4 starters, 3 mains, and 4 desserts.
How many different three-course meals are possible?

9) 4 robots each shake hands with every other one
exactly once. How many handshakes happen? _____

2) A shop sells 4 kinds of breads and 6 kinds of fillings.
How many one-of-each combinations are there?

4) 5 robots each shake hands with every other one
exactly once. How many handshakes happen? _____

6) A party menu has 5 starters, 5 mains, and 3 desserts.
How many different three-course meals are possible?

8) A shop sells 4 kinds of shirts and 4 kinds of pairs of
pants. How many one-of-each combinations are there?

10) A shop sells 6 kinds of hats and 3 kinds of scarves.
How many one-of-each combinations are there?
