

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) 4 friends each shake hands with every other one exactly once. How many handshakes happen? _____
- 2) In how many different orders can you arrange 3 different medals on a rack? _____
- 3) A shop sells 6 kinds of covers and 5 kinds of stickers. How many one-of-each combinations are there?

- 4) A school-lunch menu has 5 starters, 4 mains, and 3 desserts. How many different three-course meals are possible? _____
- 5) A menu has 2 starters, 3 mains, and 2 desserts. How many different three-course meals are possible?

- 6) A shop sells 3 kinds of covers and 7 kinds of stickers. How many one-of-each combinations are there?

- 7) A shop sells 5 kinds of ice-cream flavors and 3 kinds of toppings. How many one-of-each combinations are there? _____
- 8) A menu has 2 starters, 2 mains, and 2 desserts. How many different three-course meals are possible?

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

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