

Counting Puzzles

Advanced

Codes, teams, and tournaments.

Name: _____

Date: _____

Think: Order matters → multiply the shrinking choices. Order doesn't matter → divide out the repeats.

1. Solve each one. Reason it out!

1) A team of 2 is chosen from 6 students (the order does not matter). How many different teams are possible?

3) A team of 2 is chosen from 9 chess players (the order does not matter). How many different teams are possible? _____

5) A lock code has 2 different digits chosen from 9 digit cards (order matters, no repeats). How many codes are possible? _____

7) 7 players are in a tennis group. Every player plays every other player exactly once. How many games is that? _____

9) In how many different orders can 4 cars park in a row of 4 spaces? _____

2) 6 players are in a checkers club. Every player plays every other player exactly once. How many games is that? _____

4) A team of 2 is chosen from 5 singers (the order does not matter). How many different teams are possible? _____

6) A team of 2 is chosen from 11 singers (the order does not matter). How many different teams are possible? _____

8) 12 players are in a chess club. Every player plays every other player exactly once. How many games is that? _____

10) A team of 2 is chosen from 8 chess players (the order does not matter). How many different teams are possible? _____