Think Academy

2025 Sept AMC 8 Week 1 Day 2 - Permutation

1 There are 9 different books: 3 math books, 4 Chinese books, and 2 English books. These books are to be arranged in a row on a shelf, with the math books kept together and the Chinese books kept together. Then there are _____ possible arrangements in total.

2 Five people line up for a photo. Person A does not want to stand at either end. How many different possible arrangements are there?

A. 72 B. 48 C. 36 D. 24 E. 12

3 It's primary school graduation, and June's group is taking a photo. There are 4 boys and two girls, June and Ming. The two girls must not stand at either end and must stand next to each other. How many different possible arrangements are there?

A. 24 B. 48 C. 96 D. 144 E. 184

4 There are 3 boys and 2 girls standing in a line. The two girls are not allowed to stand next to each other. Then there are _____ different possible arrangements.

5 Class 3 of Grade 4 is holding a Children's Day celebration. The entire program consists of 2 dances, 2 songs, and 3 skits. If programs of the same type must be performed consecutively, then there are _____ different possible performance orders.

A. 122 B. 144 C. 155 D. 166 E. 177