

DO NOT SOLVE THE FOLLOWING PROBLEMS.

Instead, just answer the question “Does order matter?” for each of the following:

1. The five starting players of a basketball team are introduced one at a time. In how many different ways can they be introduced?
2. How many ways can you arrange 5 of 10 books on a shelf?
3. A student is required to work on exactly five problems from an eight-problem exam. In how many ways can the problems be chosen?
4. How many poker hands consist entirely of clubs?
5. In how many ways can five mathematics books and four novels be placed on a bookshelf if the mathematics books must be together?
6. How many batting orders are possible for a team of nine baseball players in which the pitcher always bats last and the first baseman bats in either the third or fourth spot?
7. A license plate contains six letters with no repetitions allowed. How many different license plates are possible?
8. A family has 6 members, some of whom may not be able to make it home for dinner. How many different family groups can come together for dinner?
9. A corporation has four employees that it wants to place in high executive positions. One will become president, one will become vice president, and two will be appointed to the board of directors. In how many different ways can this be accomplished?
10. During orientation, new students are divided into groups of five people. In how many ways can 4 groups be chosen among 20 people?
11. In how many ways can the 14 children in a third-grade class be paired up for a trip to the museum?