

Worksheet B2 : Permutations

1. A lock contains 3 dials, each with ten digits. How many possible sequences of numbers exist?
2. Four students are to be chosen from a group of 10 to fill the positions of president, vice-president, treasurer and secretary. In how many ways can this be accomplished?
3. How many ways can the letters MATH be arranged?
4. A shelf can hold 7 trophies. How many ways can the trophies be arranged if there are 10 trophies available?
5. Bill has three pairs of pants, 5 shirts and 2 pairs of shoes. How many outfits can he make?