How many 4 digit integers are divisible by 17 or 7?

How many 3 digit integers are divisible by 5,7, or 13?

How many 6 digit odd numbers have distinct digits?

There are 60 students in a class with 100 chairs. 45 students come to class everyday. How many possible seating arrangements are there for some given day?

Suppose that a group of 10 friends go see a movie. Two the people in the group, Alice and Bob, refuse to sit next to each other. If the theatre is empty, and there are 50 open seats in the theatre, how many ways can the group of friends sit down?

How many 20 letter strings have exactly 14, 15, 16, or 17 vowels?

What is the sum of the 108th row of Pascal’s triangle?