



5. (a) Suppose that a teacher from a class with 18 students must select the best in math, the best in sports, and the best at reading. How many different ways can the teacher make this choice?
- (b) Suppose that the class has 10 girls and 8 boys. If she is determined that the best in math will be a girl, and the best in reading will be a boy, and no student can be best in more than one area, how many ways can she make the choice?
6. Suppose a phone number consists of 7 digits. How many different phone numbers are there?
7. Suppose a phone number consists of 7 digits and the first digit cannot be 1 or 0? How many different phone numbers are there?
8. Suppose a preschool class consists of 2 girls and 3 boys. How many ways can the teacher line the kids up in order if two boys cannot be next to each other?