

Practice #28 Alg 2 Monday, May 18 to Thursday, May 21 2019

Find the number of outcomes for each problem. Show how you arrived at each answer.

1. You need a password for your new email account. The company requires your password to 7 characters long with the first 4 characters being a single digit from 0 to 9. The last three characters must be a letter. If numbers can be repeated but letters can't be repeated find the number of different passwords possible.
2. Nine people entered a contest in which different prizes are awarded to each person. How many ways can all nine these prizes be awarded to the nine people?
3. The local pizzeria offers a choice of 2 pizzas - supreme or vegetarian, 3 sides - chips, salad or coleslaw, and 4 drinks - juice, coke, ginger ale or water. For dinner I decide to have 1 pizza, 1 side, and 1 drink. How many possible meals do I have to choose from?
4. There are 6 people in a race. The following medals are awarded: 1st place: Gold 2nd place: Silver 3rd place: Bronze. How many ways can these three medals be awarded?
5. At the car dealership there is room in the lot for 6 more cars. The dealer has 9 different cars to choose from to fill those spots. How many different ways can the dealer arrange 6 of these cars to fill those spots?
6. You have 8 trophies you've won over your years of competing. The shelf in your office has room for only 5 of these trophies. How many ways can you arrange 5 of your 8 trophies on this shelf?
7. There are 12 toppings at a salad bar. Your plate has room for only 7 of the toppings. How many 7 topping salads can be made?
8. There are 16 people in a race and the top three finishers will win the SAME prize, a \$50 gift certificate. How many ways can these three gift certificates be awarded to the 16 racers?

9. The final night of a Summer Festival will feature 3 different bands. There are 7 bands to choose from. How many different ways orders could 3 of these bands play in on the final night?

10. You want to frame a picture and hang it on the wall. At the frame shop there are the following to choose from: 12 different frame styles, 15 different background colors, and 5 different sizes. How many different pictures can you create?

11. In a room there are 25 people waiting to see if they'll be selected for a jury. If a jury of 12 members must be selected from that jury pool. How many different juries are possible?