

Use the Fundamental Counting Principle to answer the following problems.

3. The math club is electing new officers. There are 3 candidates for president, 4 candidates for vice-president, 4 candidates for secretary, and 2 candidates for treasurer. How many different combinations of officers are possible?

4. You go to the cafeteria for lunch and have a choice of 4 entrees, 5 sides, 5 drinks, and 4 desserts. Assuming you have one of each category, how many different lunches could be made?

5. You go to the home electronics store to buy a new television. You have the following choices: rear projection, lcd, dlp, crt, or plasma; full screen or wide screen; 13", 19" 27", 32", 36", 41", 51", or 63". How many different televisions does the store have to offer?

6. You toss a penny 4 times. How many different outcomes are there?

7. You wake up in the morning and go to the pantry to look for breakfast. You have a choice of Pop-Tarts, muffins, granola bars, or cereal. To drink you have a choice of whole milk, 2% milk, skim milk, orange juice, apple juice, and water. Your mother insists that you take a multi-vitamin with your breakfast. You can choose from Flintstones vitamins, One-a-Day vitamins, or Chock's Vitamins. How many different breakfasts made up of an entrée, drink, and vitamin could you make?

8. You go to Wal-mart to buy batteries. You can choose from EverReady, Duracell, or Ray-O-Vac. Once you decide on the brand you then have to decide whether to get alkaline or non-alkaline batteries. Finally you must decide between AAA, AA, C, or D batteries. How many different kinds of batteries are available for you to buy?