**Fundamental Counting Principle**

**Worksheet #1**

1. Pat’s Pizza Palace will prepare pizza with a thin crust, a thick crust or a deep dish style crust. There are eight choices of toppings. In how many ways can you choose a one-topping pizza?
2. How many odd integers between 10 and 100 start and end with the same digit?
3. How many license plates of 2 symbols (letters and digits) can be made using at least one letter in each?
4. Identification labels are composed of 4 letters. A) How many different labels are possible? B) How many are possible if no letter may be repeated?
5. Adele can take one of three buses to work, or she can ride one of two trains and then walk along one of four different routes from the train to her office. In how many different ways can Adele go to work?
6. If a high school senior takes English, then math and then science and there are 5 English courses, 4 math courses,

and 4 science courses, how many possible schedules are there if a senior must choose a course in each subject?

1. One hundred cards are numbered from 1 to 100. How many ways are there of choosing two cards if the first card is not returned to the deck?
2. One hundred cards are numbered from 1 to 100. How many ways are there of choosing three cards if the chosen cards are not returned to the deck?
3. How many even 3-digit positive integers can be written using the digits 2, 4, 5, 6 and 8?
4. How many odd 3-digit positive integers can be written using the digits 2, 4, 5, 6 and 8?

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