

1. A restaurant offers 8 appetizers and 14 entrées. How many choices do you have if:
 - (a) you will eat one dish - either an appetizers or an entrée?

 - (b) you are extra hungry and want to eat both an appetizer and an entrée?

2. How many two letter “words” start with either A or B?

3. How many two letter “words” start with a vowel?

4. Think about the methods you used to solve the counting problems above. Write down the rules for these methods, and why they work.

5. Do your rules work? A standard deck of playing cards has 26 red cards and 12 face cards.
- (a) How many ways can you select a card which is either red or a face card?

(b) How many ways can you select a card which is both red and a face card?

(c) How many ways can you select two cards so that the first one is red and the second one is a face card?

6. A recent survey of Village Inn patrons revealed the following pie preferences. People were asked whether they enjoyed Apple, Blueberry, or Cherry pie. The following table shows how many people like which kinds of pie, in their various combinations.

Pies enjoyed:	A	B	C	AB	AC	BC	ABC
Number of people:	20	13	26	9	15	7	5

How many of those asked enjoy at least one of the kinds of pie?

Hint: The answer is not 95.