Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Mutually Exclusive Practice**

Determine if the following events are mutually exclusive or overlapping.

* 1. The experiment is rolling a die.

The 1st event: the number is greater than 3

The 2nd event: the number is even.

* 1. The experiment is year in school.

The 1st event: the person is a senior.

The 2nd event: the person is a junior.

* 1. The experiment is answering multiple choice questions.

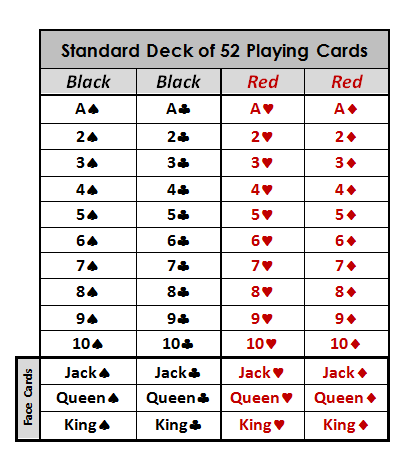
The 1st event: the correct answer is chosen

The 2nd event: the answer A is chosen.

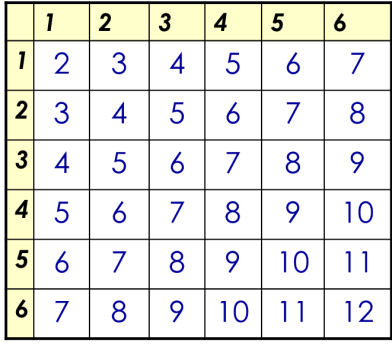
* 1. The experiment is selecting a chocolate bar.

The 1st event: the bar has nuts

The 2nd event: the bar has caramel.

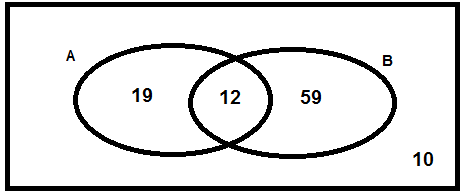
* 1. One card is randomly drawn from a deck of 52 cards. The card is face down on the table. What is the probability of getting a Jack or a Spade?

Use the general addition rule to compute the probability that if you roll two six-sided dice.



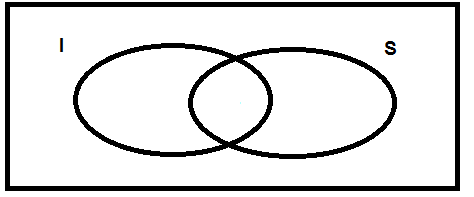
* 1. you get doubles or a sum of 4
  2. you get doubles or a sum of 7
  3. you get a 5 on the first die or you get a 5 on the second die.

Use the Venn diagram to answer the following questions.

* 1.  P(A)
  2. P(B)
  3. P(B)’
  4. P(A ∪ B)
  5. P(A ∩ B)

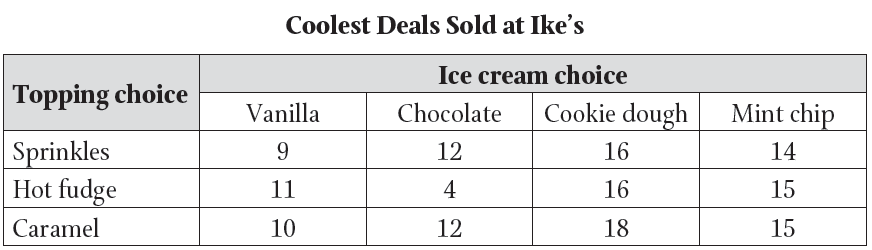
When you arrive home today, you find 27 cupcakes in a large circular plate.

There are 13 that have icing, 11 have sprinkles, and 4 have both.



* 1. P(I)
  2. P(S)
  3. P(I ∪ S)
  4. P(I ∩ S)

Use the data below to find each of the following probabilities.



* 1. P(Chocolate)
  2. P(Chocolate)’
  3. P(Sprinkles ∩ Cookie Dough)
  4. P(Caramel ∪ Vanilla)