Section 9.4

1) This example will help you do exercises 9, 11-15 on pp. 423-4.
A card is drawn from a standard 52-card deck. What is the probability that it is:
a) a king or a jack? b) red or a jack?

2) This example will help you do exercises 17, 19-22 on p. 424.
A survey of students found that 47% spoke Spanish, 12% spoke French, and 8% spoke Spanish and French. What is the probability that a student spoke:
a) at least one of the two languages? b) neither Spanish nor French?

3) This example will help you do exercises 37c, 38c, 40, 42 on pp. 425-6.
The probability that an FIU student takes the bus to school is \( \frac{3}{13} \). What is the probability that an FIU student doesn’t take the bus to school?

4) This example will help you do exercises 23-24 on p. 424.
A die is rolled. What are the odds:
a) in favor of rolling a 2? b) against rolling a 2?

5) This example will help you do exercises 26-27 on pp. 424-5.
The odds against winning a sweepstake prize are 10,000:3. What is the probability of winning the prize?

6) This example will help you do exercises 30-35 on p. 425.
An experiment is conducted for which the sample space is \( S=\{s_1, s_2, s_3, s_4\} \). Which of the probability assignments is possible for this experiment? If an assignment is not possible, tell why.
   a) outcomes
   \[
   \begin{array}{cccc}
   \hline
   \text{probabilities} & - .25 & .25 & .5 & .5 \\
   \hline
   \end{array}
   \]
   b) outcomes
   \[
   \begin{array}{cccc}
   \hline
   \text{probabilities} & .1 & .1 & .1 & .1 \\
   \hline
   \end{array}
   \]
   c) outcomes
   \[
   \begin{array}{cccc}
   \hline
   \text{probabilities} & .1 & .2 & .3 & .4 \\
   \hline
   \end{array}
   \]

7) This example will help you do exercises 1-6 on p. 423.
Decide whether the events are mutually exclusive.
a) Being a Democrat and being a Republican concurrently
b) Rolling a 3 and rolling an odd in a single roll of a die
c) Traveling by plane and traveling by car in a single vacation