1.2 Practice

Suppose you have a standard deck of 52 cards. Let:

A : draw a 7 $\qquad$ B : draw a Diamond

1) Describe $A \cup B$ for this experiment, and find the probability of $A \cup B$.

2) Describe $A \cap B$ for this experiment, and find the probability of $A \cap B$.

Suppose you have a jar of candies: 4 red, 5 purple and 7 green. Find the following probabilities of the following events:

3) Selecting a red candy.

4) Selecting a purple candy.

5) Selecting a green or red candy.

6) Selecting a yellow candy.

7) Selecting any color except a green candy.

8) Find the odds of selecting a red candy.

9) Find the odds of selecting a purple or green candy.

Use the following sample space to find the probability of the event for #10-13.
{1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12}

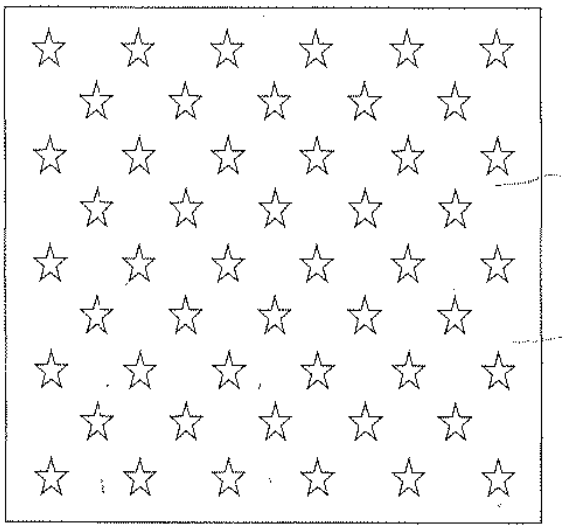
10) An even number is chosen.

11) A prime number is chosen.

12) A multiple of 3 is chosen.

13) A two-digit number is chosen.

Use the following scenario and diagram to answer questions 14-16.
You are throwing a dart at the square shown at the right. Assume that the dart is equally likely to land at any point in the square. The square is 2 inches by 2 inches. Each star has an area of 0.01 square inch.



14) The dart has landed inside the square. What is the probability that it hit a star?

15) The dart has landed inside the square. What is the probability that it hit a star in the top three rows?

16) The dart has landed inside the square. What is the probability that it hit one of the four corner stars?

17) In a survey conducted by USA Today, men and women were asked how often they exercise on business trips. Of those surveyed, 579 said occasionally, 284 said often, 148 said always, and 125 said never. If you choose one of the respondents at random, what is the probability that the person answered “always” or “never?”