ADDITIONAL REVIEW PROBLEMS

1. Find the value of x if the mean of the following numbers is 15.
   14, 25, 26, 11, 9, x

2. Three members are selected from Adams, Brown, Campbell and Davidson to form a committee. Write the sample space.

3. One card is drawn from a deck of 52 cards. What is the probability of the card being 5 or 6?

4. A PIN is made up of two letters followed by two digits. The first letter must be A, B or C and the first digit cannot be zero. How many PIN's are possible if repetition is not allowed?

5. A seed packet contains seeds from 1 white, 4 red and 5 yellow flowers. If 3 seeds are selected at random, how many samples are possible that contain seeds for 2 red and 1 yellow flowers?

6. Give set T={ q, w, e, r, t, y } How many subsets will T have?

7. Sam's Bicycle Shop received a shipment of 7 street bikes and 5 off-road bicycles.
   a. Sam will select 2 street bikes and 2 off-road bikes to display in the shop window. How many such samples are possible?
   b. If Sam selects 4 bicycles at random, what is the probability that he will get 2 street and 2 off-rad bicycles?

8. A survey of teens at the Community Center gave the following results.

	Favor A	Oppose A	Totals
Men	72	25	97
Women	59	26	85
Totals	131	51	182

If a person is selected at random find the probability the person
   a. is woman given the person favors A
   b. is a woman and she favors A
   c. favors A given the person is a man.

9. Seventy-six percent of those attending the Kentucky Derby were men and 24% were women. Of the men 95% place a bet while 80% of the women placed a bet. If a person places a bet, find the probability the person is a woman.

10. The probability that a mouse has pink eyes is .07. A group of 24 mice are checked for pink eyes.
    a. Find the probability exactly one has pink eyes.

    b. Find the probability that at least one has pink eyes.

11. The life of a smoke alarm battery is normally distributed with a mean of 7.5 years and a standard deviation of .3 years. Find the probability a randomly selected battery will last more than 7 years.

ANSWERS

1. 5

2. {ABC, ABD, ACD, BCD}

3. $\frac{2}{13}$

4. 6075

5. 30

6. 64

7. a. 210
   b. .4242

8. a. 59/131
   b. 59/182
   c. 72/97

9. .2101

10. a. .3165

    b. .8248

11. .9525