Mrs. Daniel- AP Stats
Problems using the Addition Rule (5.2 HW)

1. A bag contains marbles: 18 red, 12 green, 15 blue, 12 white, and 7 black. A marble is chosen. Find the probabilities of choosing:

a) red

18/64 = 0.28

b) black or white

19/64 = 0.30

c) red or green

30/64 = 0.47

d) red, green or blue

45/64 = 0.70

e) not white

52/64 = 0.81

f) not white or black

45/64 = 0.70

2. Jerrold's TV can pick up 120 stations. At 8 PM, 42 stations are showing commercials. Of the stations not showing commercials, the following programs are being shown: 18 sports, 25 movies, 7 news shows, 13 comedy programs, 12 drama programs, and 3 are sales program (like QVC). A station is chosen at random: Find the following probabilities:

a) choosing a news show

7/120 = 0.058

b) choosing a commercial

42/120 = 0.35

c) a comedy or drama

25/120 = 0.21

d) sports, movie or news

50/120 = 0.42

e) not a sales program

117/120 = 0.98

f) neither sports or a movie

77/120 = 0.64

3. A pet store has 25 pets, 16 dogs and 9 cats. Of the dogs, 13 are puppies and of the cats 6 are kittens. A pet is chosen at random. Find the following probabilities:

a) a dog

16/25 = 0.64

b) a cat

9/25 = 0.36

c) a puppy

13/25 = 0.52

d) a kitten

6/25 = 0.24

e) a puppy or a kitten

19/25 = 0.76

d) neither a puppy or kitten

6/25 = 0.24

4. A rental car lot has 49 American made cars and 26 Foreign cars. Of the American cars, 35 of them are white and of the foreign cars, 15 are white. A car is chosen at random. Find the probabilities:

a) American

49/75 = 0.65

b) foreign

26/75 = 0.35

c) American or foreign

75/75 = 1.00

d) not white

25/75 = 0.33

e) American or white

64/75 = 0.85

f) Foreign or not white

40/75 = 0.53

5. A pizza shop has two sizes of pizzas, large and small. On a certain day, a pizza shop made 59 plain pizzas and 72 pizzas with toppings. Of the 59 plain pizzas, 19 were small and of the 72 pizzas with toppings, 42 were large. A pizza is chosen at random. Find the following probabilities.

a) large

82/131 = 0.63

b) small

49/131 = 0.37

c) with toppings

72/131 = 0.55

d) plain

59/131 = 0.45

e) large plain

40/131= 0.31

f) small with toppings

30/131 = 0.23

g) small or plain

89/131 = 0.68

h) large or with toppings

112/131 = 0.85

i) small or large

131/131 =1.00

6. A computer store stocks the computers according to the following chart:

	Dell	**HP**	**Mac**
Laptop	20	25	12
Desktop	19	32	8

A computer is chosen at random. Find the probability of choosing

a) a Mac

20/116 = 0.17

b) a Dell or HP

96/116 = 0.83

c) a laptop

57/116 = 0.49

d) a Mac laptop

12/116 = 0.10

e) a Mac or laptop

65/116 = 0.56

f) a Dell or desktop

79/116 = 0.68