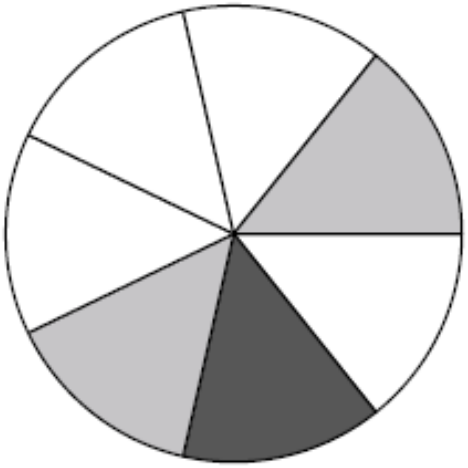
Algebra 2
Chapter 11 – Probability
11.1 – 11.2 All Probability Practice

Name: _____

Date: _____ Per: _____

Use the image on the right to answer the following questions:



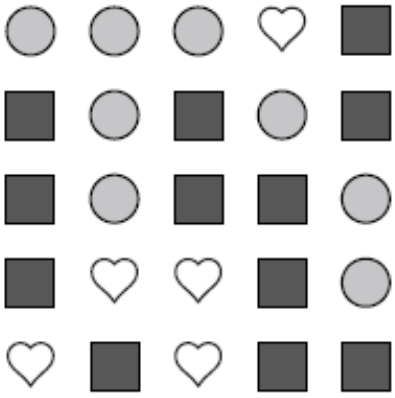
1.) If you spin the spinner 1 time, what is the probability that it would land on a grey piece?

2.) If you spin the spinner 1 time, what is the probability that it would land on a black piece?

3.) If you spin the spinner 2 times, what is the probability that it would land on a white piece and then a black piece?

4.) If you spin the spinner 2 times, what is the probability that it would land on a black piece and then a grey piece?

Use the diagram of shapes on the left to answer the following questions:



5.) If you were to select one shape at random from the array, what is the probability that it will be a circle?

6.) If you were to select 1 shape at random from the array, what shape do you have the greatest probability of selecting

7.) Which shape has a probability of 8/25 of being selected?

Decide whether to use permutations or combinations & then find the number of possibilities.

8.) A team of 8 basketball players needs to choose a captain and co-captain

9.) The student body of 60 students wants to elect four representatives.

10.) There are 20 applicants for three jobs: computer programmer, software tester, and manager.

11.)The batting order for eight players on a 15 person team

12.) A team of 16 field hockey players needs to choose a captain and co-captain.

13.) There are 180 people at a meeting. They each give a Valentine's Day card to everyone else. How many cards were given?

Find the number of possible outcomes for each scenario.

14.) A coffee shop offers small, medium, and large sizes. Customers can choose between French roast, Italian roast, and American roast.

15.) A new car is available in a sedan model and a hatchback model. It is available in red, white, green, or black.

Find the probability.

16.) There are 4 girls and 5 boys in the class. The teacher needs to pick two students to present at the board. Find the probability that the teacher picks a boy for the first student and a girl for the second student.

17.)A bag contains four red marbles, four blue marbles, eight green marbles, eight yellow marbles, and 6 black marbles. Find the following probabilities:

a.) P(Green then Blue) *With Replacement*

b.) P(Red then Blue then Green)

c.) P(Yellow and Yellow)

d.) P(Black then Green) *With Replacement*

e.) P(Red then Blue then Green then Yellow then Black)

18.) You select two cards from a standard shuffled deck of 52 cards. Find the probability of the following:

a.) P(Red card then Black card)

b.) P(King then Queen then Jack)

c.) P(even number card or red 5)

d.) P(face card then another face card)

e.) P(Red 13 then Black Ace or 7)

f.) P(odd number card or Jack AND 3 of hearts)

g.) P(two prime number cards)

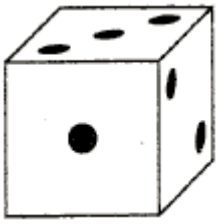
19.) A die is rolled and the spinner is spun. Find the probability of each:

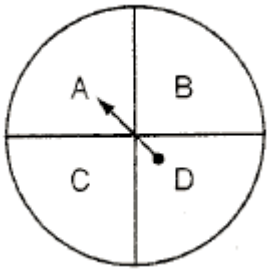
a.) P(1 and A)

b.) P(odd and B)

c.) P(composite and C)

d.) P(prime and B)





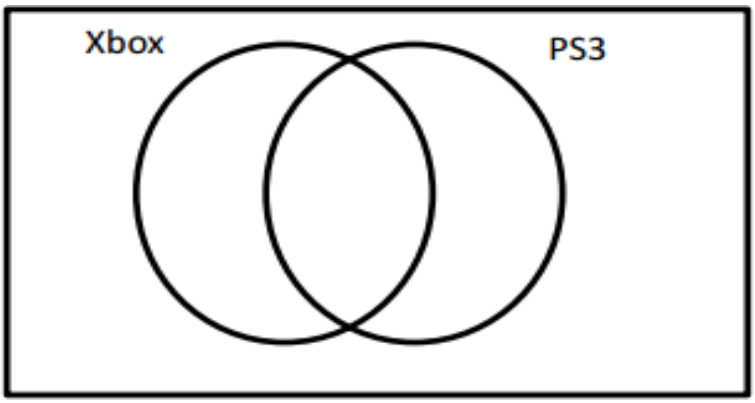
20.) Out of 19 students surveyed, 2 students did not own an Xbox or PS3, 6 students owned a PS3 and an Xbox, and 14 students owned a PS3. Use the Venn diagram below to show your work.

How many students owned the following:

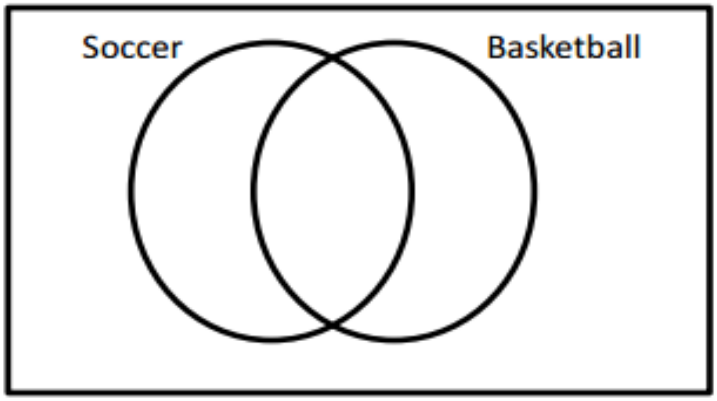
a.) An Xbox: _____

b.) Only a PS3: _____

c.) Both consoles: _____



21.) In a recent survey of 22 Dundee Crown students, 3 of them did not like soccer or basketball. 7 said they only like basketball. None said they like both. Use this situation to answer the following:



How many students liked:

a.) Only Soccer: _____

b.) Soccer or Basketball: _____

c.) Soccer and Basketball: _____

22.)Matthew was ordering pizza for his 47 friends. He took a survey to see who like pepperoni, cheese, and sausage. 3 people said they liked all three, 5 said cheese and sausage, 8 said pepperoni and cheese, and 3 said pepperoni and sausage. 5 people did not choose any of the three. 10 total like pepperoni and 14 liked sausage. How many liked:

a.) Cheese: _____

b.) Just Cheese: _____

c.) Just Sausage: _____