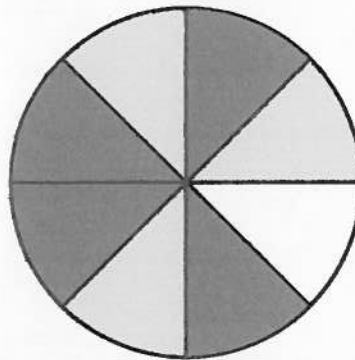




Use each diagram to solve the problems.

- 1) How many pieces are there total in the spinner?
- 2) If you spun the spinner 1 time, what is the probability it would land on a gray piece?
- 3) If you spun the spinner 1 time, what is the probability it would land on a black piece?
- 4) If you spun the spinner 1 time, what is the probability it would land on a white piece?
- 5) If you spun the spinner 1 time, what is the probability of landing on either a gray piece or a white piece?

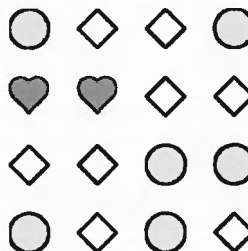
Answers

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \_\_\_\_\_
7. \_\_\_\_\_
8. \_\_\_\_\_
9. \_\_\_\_\_
10. \_\_\_\_\_
11. \_\_\_\_\_
12. \_\_\_\_\_



- 6) If you were to roll the dice one time what is the probability it will land on a 2?
- 7) If you were to roll the dice one time what is the probability it will NOT land on a 3?
- 8) If you were to roll the dice one time, what is the probability of it landing on an even number?

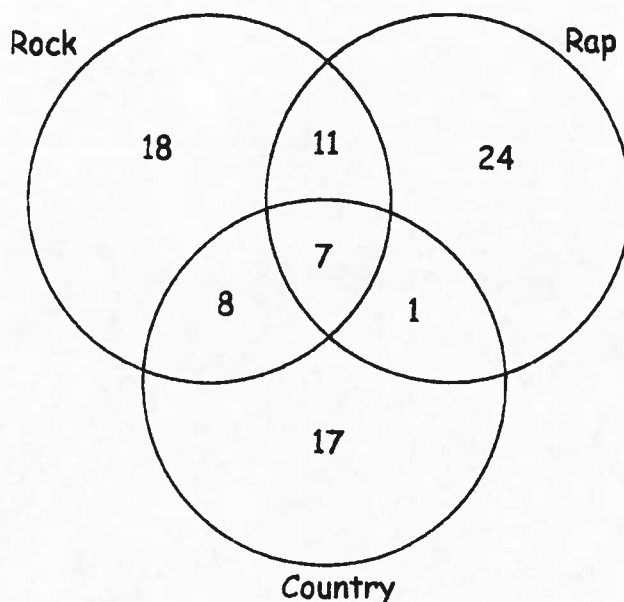
- 9) How many shapes are there total in the array?
- 10) If you were to select 1 shape at random from the array, what is the probability it will be a circle?
- 11) If you were to select 1 shape at random from the array, what shape do you have the greatest probability of selecting?
- 12) Which shape has a 37.5% chance (6 out of 16) of being selected?



NAME \_\_\_\_\_ Period \_\_\_\_\_

### Venn Diagram Worksheet

Use the Venn Diagram below to answer the questions that follow.



1. How many total people are represented in the diagram? \_\_\_\_\_
2. How many people like country? \_\_\_\_\_ rap? \_\_\_\_\_ rock? \_\_\_\_\_
3. If one person is chosen at random, what is the probability that that person will like rap music?  
 $P(\text{rap}) =$
4. If one person is chosen at random, what is the prob. for picking a person who likes country?
5. If one person is chosen at random, what is the probability that it is a person who likes all three types of music?
6. If one person is chosen at random, what is the probability that it is a person who likes rock and rap?

Solve the problems below using your knowledge of probability. Write fractions in lowest terms.

1. What is the probability of choosing an ace from a standard deck of playing cards?
2. What is the probability of choosing a red marble from a jar containing 5 red, 6 green and 4 blue marbles?
3. What is the probability of choosing a marble that is not green in problem 2?
4. What is the probability of getting an even number when rolling a single 6-sided die?
5. What is the probability of choosing a queen or a king from a standard deck of 52 playing cards?
6. What is the probability of landing on an odd number after spinning a spinner with 9 equal sectors numbered 1 through 9?
7. What is the probability of getting a 0 after rolling a single die numbered 1 to 6?
8. What is the probability of choosing a picture card (jack, queen or king) from a standard deck of playing cards?
9. What is the probability of choosing the letter a from the word mathematics?
10. What is the sample space for choosing a letter from the word mathematics?

**A. Roll a pair of dice to complete the table below.**

Die 1	Die 2	Sum		Die 1	Die 2	Sum
1	1	2		1	1	
1	2	3		1	2	
1	3	4		1	3	
1	4	5		1	4	
1	5	6		1	5	
1	6	7		1	6	
2	1	3		2	1	
2	2	4		2	2	
2	3	5		2	3	
2	4			2	4	
2	5			2	5	
2	6			2	6	
3	1			3	1	
3	2			3	2	
3	3			3	3	
3	4			3	4	
3	5			3	5	
3	6			3	6	
4	1			4	1	
4	2			4	2	
4	3			4	3	
4	4			4	4	
4	5			4	5	
4	6			4	6	
5	1			5	1	
5	2			5	2	
5	3			5	3	
5	4			5	4	
5	5			5	5	
5	6			5	6	
6	1			6	1	
6	2			6	2	
6	3			6	3	
6	4			6	4	
6	5			6	5	
6	6			6	6	

**B. Use the table above to answer the questions below.**

- When you roll a pair of dice, how many outcomes are there? \_\_\_\_\_
- How many ways can you get a sum of 1? \_\_\_\_\_
- How many ways can you get a sum of 2? \_\_\_\_\_
- How many ways can you get a sum of 3? \_\_\_\_\_
- How many ways can you get a sum of 4? \_\_\_\_\_
- How many ways can you get a sum of 5? \_\_\_\_\_
- How many ways can you get a sum of 6? \_\_\_\_\_
- How many ways are there to get a sum of 7? \_\_\_\_\_
- How many ways are there to get a sum of 8? \_\_\_\_\_
- How many ways are there to get a sum of 9? \_\_\_\_\_
- How many ways are there to get a sum of 10? \_\_\_\_\_
- How many ways are there to get a sum of 11? \_\_\_\_\_
- How many ways are there to get a sum of 12? \_\_\_\_\_

**C. Complete the table below.**

Sum of dice	2	3	4	5	6	7	8	9	10	11	12
# outcomes											