Name: _____ Per: ____

Probability Practice Part 2

1. If you spin a fair spinner that has four parts (green, blue, red & white) twice what is the probability that you will spin a red and then a white?	2. There are 3 chocolate chip, 6 sugar and 2 oatmeal raisin cookies. If 2 cookies are chosen at random without replacement, what is the probability of choosing 2 sugar cookies?	3. If you roll a standard die (numbers 1-6), and then spin a fair spinner that has 3 parts: black, white and gray, what is the probability of rolling a 1 and spinning a black?
4. There are 8 freshmen, 3 sophomores, 12 juniors and 17 seniors. If two students are chosen without replacement, what is the probability of choosing 2 juniors?	5. There are 8 freshmen, 3 sophomores, 12 juniors and 17 seniors. If two students are chosen what is the probability of choosing 2 juniors, assuming that you could choose the same person twice?	6. If you choose a card out of a 52-card deck, which has 18 red number cards and 18 black number cards, replace it, and then choose another, what is the probability of choosing 2 red number cards?
7. There are 9 buttons, 5 safety pins, and 3 bobbins in a drawer. If two items are chosen at random, what is the probability that they will both be a button?	8. Ten people, including Eduardo, are entered in a raffle. Each of them has one ticket. If two tickets are chosen what is the probability that Eduardo will be chosen twice, assuming that the tickets are replaced between each prize?	9. If you choose a card from a 52-card deck and then roll a standard die, what is the probability that you will choose a black card and roll an 8?

Use the two-way frequency table shown below to evaluate problems 10-18.

	Prefers Sci-fi	Prefers Action	Prefers Comedies	Total
Plays Video Games	22	15	40	77
Does not Play Video Games	23	8	20	51
Total	45	23	60	128

10. What is the probability that a person selected at random prefers action movies?	11. What is the probability that a randomly selected person will prefer comedies, given that he or she does not play video games?	12. What is the probability that a randomly selected person does not play video games, given that he or she prefers action movies?
13. What is the probability that a randomly selected person plays video games?	14. What is the probability that a randomly selected person plays video games, given that he or she prefers sci-fi movies?	15. What is the probability that a person selected at random will play video games and prefer sci-fi movies?
16. What is the probability that a randomly selected person prefers comedies?	17. What is the probability that a randomly selected person plays video games, given that he or she prefers action movies?	18. What is the probability that a randomly selected person prefers action movies, given that he or she does not play video games?

Probability Practice Part 2 Answers

1. 6.3%	2. 27.3%	3. 5.6%	4. 8.5%	5. 9.0%	6. 12.0%
7. 26.5%	8. 1.0%	9. 0.0%	10. $\frac{23}{128}$ = 18.0%	11. $\frac{20}{51}$ = 39.2%	12. $\frac{8}{23}$ = 34.8%
13. $\frac{77}{128}$ = 60.2%	14. $\frac{22}{45}$ = 48.9%	15. $\frac{22}{128}$ = 17.2%	16. $\frac{60}{128}$ = 46.9%	17. $\frac{15}{23}$ = 65.2%	18. $\frac{8}{51}$ = 15.7%