Unit 6B – Probability Review
PAP Geometry

Name: _____
Date: _____Pd:____

1. A jar contains 2 red marbles, 6 blue marbles, and 8 white marbles. Four marbles are chosen from the jar with replacement. What is the probability they are all white?

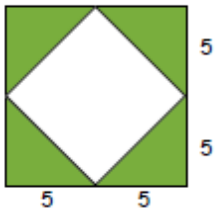
2. Find the probability of drawing the given cards from a standard deck of 52 cards with replacement **and** without replacement.

   a. a jack then a 7

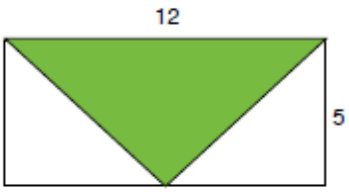
   b. a 5, then a face card, then an ace

3. Find the probability that a dart thrown at the given target will hit the shaded region. Leave answers as a percent rounded to the tenth.

a)



b)



4. You have a bag of 17 marbles. Four are blue, 6 are green, 2 are red, and the others are yellow. What is the probability of drawing a yellow marble?

5. What is the probability that a coin will land on heads and then a coin will land on tails?

6. You have a bag of 17 marbles. Four are blue, 6 are green, 2 are red, and the others are yellow. What is the probability of drawing a red marble, putting it aside, and then drawing a green marble?

7. What is the probability of drawing the ACE of diamonds from a deck of cards, putting it back in deck, shuffling the deck, and then drawing the ACE of clubs?

	Job Satisfaction		
	Satisfied	Unsatisfied	Total
College	74	43	117
High School	224	171	395
Elementary	126	140	226
Total	424	354	778

8. What is the probability that a teacher is satisfied and teaches high school?

9. What is the probability that a teacher is satisfied with his/her job given that he/she teaches college?

10. What is the probability that a teacher is unsatisfied with his/her job given that he/she is an elementary school teacher?

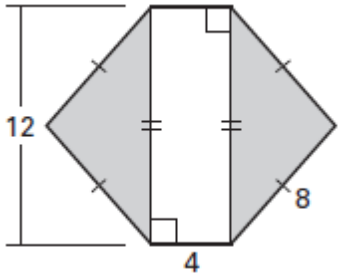
11. The probability of being a male is .5 and the probability being a male and wearing seat belt is .1. What is the probability of wearing a seat belt given that the person is male?

12. A pizzeria offers 8 different toppings on their pizzas. If a customer wants to order a 3-topping pizza, how many possible options are there?

13. A summer camp offers 12 different afternoon activities. Caleb selects 2 of the activities to do today. How many possible outcomes are there if the order of the activities is important?

14. Seven friends are playing musical chairs. In the first round, there are 5 chairs, so only 5 of the friends will move on to the second round. How many different groups of friends are possible for the second round of the game?

15. Find the probability that a randomly chosen point in the figure lies in the shaded region.



16. Find the probability that a randomly chosen point in the circle lies in the sector.