Module 8 Test Review (Complete all work on lined paper)

Questions 1-3 Make a tree-Diagram to find each probability.

1. There are two bags with 4 cards in each. The first bag has cards 1-4. The second bag has a green, yellow, red, and blue card. Find the probability that someone will choose a green and a 4. Find the probability someone will not choose a blue card.

2. Students can choose between Ham, Turkey, and Tuna subs with White, or Wheat bread, and Swiss or Provolone Cheese.
   a. What is the probability of a student choosing a Turkey sub with White bread and Provolone Cheese?
   b. What is the probability of a student NOT choosing Provolone Cheese

3. Customers can choose between Small, Medium, or Large Pizzas with or without Pepperoni.
   a. What is the probability that someone will order a small pepperoni pizza?
   b. What is the probability that someone will order a pizza with Pepperoni?

4. A spinner with 4 equal parts (Green, Yellow, Red, and Blue) is spun. At the same time a standard number cube is tossed.
   a. What is the probability that someone will spin a Red and toss a 4?
   b. What is the probability that someone will not spin a blue and will roll an even number?
   c. What is the probability of spinning a blue and tossing a 3?
   d. What is the probability of spinning a blue or tossing a 3?

5. Two people will be selected from a group of 5 for free tickets to a movie. If Kevin, Lilly, Adam, Cole, and Nati are in the group, what is the probability that Adam will be selected? Identify the sample space.

A bag contains 8 red marbles, 3 blue marbles, and 6 green marbles. Find each probability

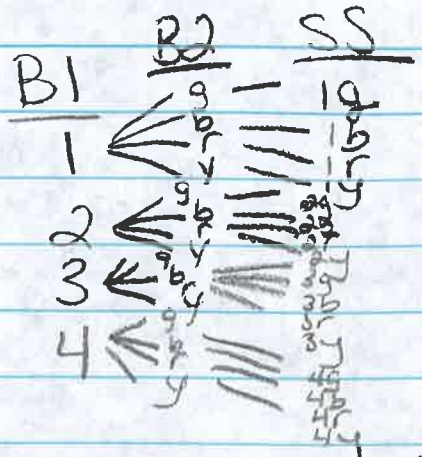
6. P(red)
7. P(not green)
8. Complement of blue
9. P(yellow)

A spinner numbered 1-6 is spun 3 times. Find each compound probability

10. P(1,1,3)
11. P(even, odd, 4)
12. Probability of spinning a 6 at least twice.

Two standard number cubes are tossed. Find each probability

13. Sum is at least 5
14. Product is an even number
15. Rolling a 4 and then an even
16. Rolling a 3 and then a 2.

1. 

a. $\frac{1}{16}$

b. $\frac{12}{16} = \frac{3}{4}$

2.
- Ham
  - white
    - Swiss — Ham white swiss
    - prov — Ham white prov.
  - wheat
    - Swiss — Ham wheat swiss
    - prov — Ham wheat prov
- Turkey
  - white
    - Swiss — Turkey white swiss
    - prov — Turkey white prov.
  - wheat
    - Swiss — Turkey wheat swiss
    - prov — Turkey wheat prov.
- Tuna
  - white
    - Swiss — Tuna white swiss
    - prov — Tuna white prov.
  - wheat
    - Swiss — Tuna wheat swiss
    - prov — Tuna wheat prov.

a. $\frac{1}{12}$

b. $\frac{1}{2}$

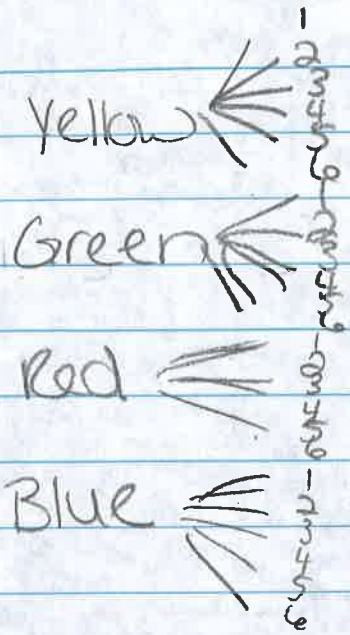
3. sm $<^{w/}_{w/o}$

m. $<^{w/}_{w/o}$

lg $<^{w/}_{w/o}$

a. $\frac{1}{6}$

b. $\frac{3}{6} = \frac{1}{2}$

4. 

a. $\frac{1}{24}$

b. $\frac{9}{24} = \frac{3}{8}$

c. $\frac{1}{24}$

d. $\frac{9}{24} = \frac{3}{8}$

5. S.S

KL	LA	AC	CN
KA	LC	AN	
KC	LN		
KN			

$\frac{4}{10} = \frac{2}{5}$

6. $P(\text{red}) = \frac{8}{17}$

7. $P(\text{not green}) = \frac{11}{17}$

8. $P(\text{not blue}) = \frac{17-3}{17}$ $\frac{14}{17}$
Complement of blue

9. P(yellow) = 0

10. you can draw a tree diagram if needed for Questions 10-12

10. $P(1,1,3) = \frac{1}{6} \cdot \frac{1}{6} \cdot \frac{1}{6} = \frac{1}{216}$

11. $P(\text{even, odd, 4}) = \frac{1}{2} \cdot \frac{1}{2} \cdot \frac{1}{6} = \frac{1}{24}$

12. $P(6 \text{ at least twice}) : \frac{1}{6} \cdot \frac{1}{6} \cdot \frac{6}{6} = \frac{6}{216} = \frac{1}{36}$

13. (refer to table in notes)

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

$\frac{30}{36} = \frac{5}{6}$

14.

	1	2	3	4	5	6
1	1	2	3	4	5	6
2	2	4	6	8	10	12
3	3	6	9	12	15	18
4	4	8	12	16	20	24
5	5	10	15	20	25	30
6	6	12	18	24	30	36

$\frac{27}{36} = \frac{3}{4}$

15. $\frac{1}{6} \cdot \frac{1}{2} = \frac{1}{12}$

16. $\frac{1}{6} \cdot \frac{1}{6} = \frac{1}{36}$