

Name: _____ Date: _____

Mutually Exclusive Practice

Determine if the following events are mutually exclusive or overlapping.

- _____ 1. The experiment is rolling a die.
 The 1st event: the number is greater than 3
 The 2nd event: the number is even.
- _____ 2. The experiment is year in school.
 The 1st event: the person is a senior.
 The 2nd event: the person is a junior.
- _____ 3. The experiment is answering multiple choice questions.
 The 1st event: the correct answer is chosen
 The 2nd event: the answer A is chosen.
- _____ 4. The experiment is selecting a chocolate bar.
 The 1st event: the bar has nuts
 The 2nd event: the bar has caramel.

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- _____ 5. One card is randomly drawn from a deck of 52 cards. The card is face down on the table. What is the probability of getting a Jack or a Spade?

Use the general addition rule to compute the probability that if you roll two six-sided dice.

- _____ 6. you get doubles or a sum of 4

- _____ 7. you get doubles or a sum of 7

	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

- _____ 8. you get a 5 on the first die or you get a 5 on the second die.
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Use the Venn Diagram to answer the following questions.

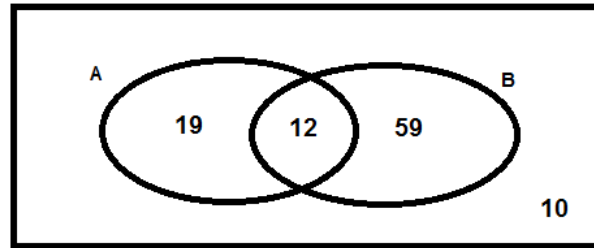
_____ 9. $P(A)$

_____ 10. $P(B)$

_____ 11. $P(B)'$

_____ 12. $P(A \cup B)$

_____ 13. $P(A \cap B)$



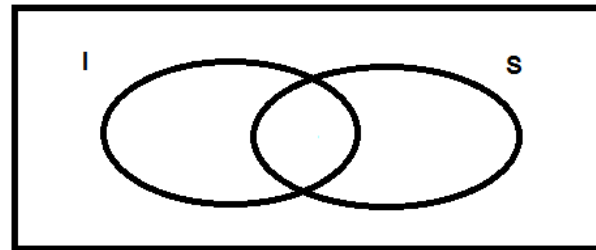
When you arrive home today, you find 27 cupcakes in a large circular plate. There are 13 that have icing 11 have sprinkles, and 4 have both.

_____ 14. $P(I)$

_____ 15. $P(S)$

_____ 16. $P(I \cup S)$

_____ 17. $P(I \cap S)$



Use the data below to find each of the following probabilities.

Coollest Deals Sold at Ike's

Topping choice	Ice cream choice			
	Vanilla	Chocolate	Cookie dough	Mint chip
Sprinkles	9	12	16	14
Hot fudge	11	4	16	15
Caramel	10	12	18	15

_____ 18. $P(\text{Chocolate})$

_____ 19. $P(\text{Chocolate})'$

_____ 20. $P(\text{Sprinkles} \cap \text{Cookie Dough})$

_____ 21. $P(\text{Caramel} \cup \text{Vanilla})$