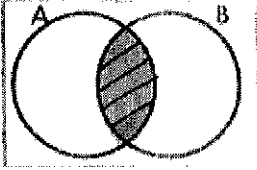
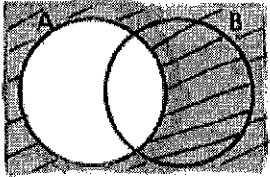
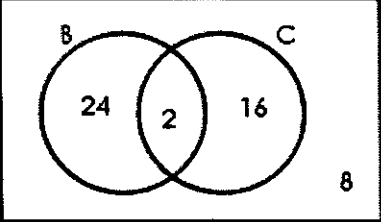
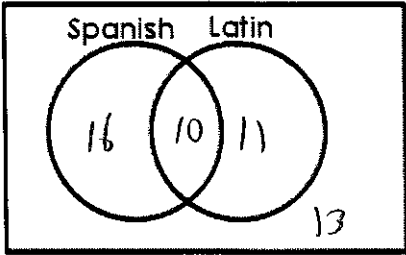


Name: Key Date: _____

Use the following to review for you test. Work the Practice Problems on a separate sheet of paper.

Topics	Things to remember	Practice	
Venn Diagram Sets	Notation: \cup - Union \cap - Intersection ' - Complement "not"	1)  $P(A \cap B)$	2)  $P(A)'$ or $P(\bar{A})$
Venn Diagram		3) How many people are in the club? 50 4) Find $P(B)$ $\frac{26}{50} = \frac{13}{25}$ 5) Find $P(B \cap C)$ $\frac{2}{50} = \frac{1}{25}$ 6) Find $P(B \cup C)$ $\frac{42}{50} = \frac{21}{25}$ 7) $P(B)'$ $\frac{24}{50} = \frac{12}{25}$	
Venn Diagram	Working Backwards – start with the intersection.	8) A guidance counselor is planning schedules for 50 students. 26 want to take Spanish and 21 want to take Latin. 10 say they want to take both. Display this information on the Venn Diagram below.	
P(A or B)	Mutually Exclusive $P(A) + P(B)$ (no overlap)	9.) Drawing one card from a standard deck of cards, what is $P(\text{drawing a 4 card or drawing a Jack})$ $\frac{4}{52} + \frac{4}{52} = \frac{2}{13}$	10.) If you roll single die, what is $P(\text{getting an odd number or getting a 4})$ $\frac{3}{6} + \frac{1}{6} = \frac{4}{6} = \frac{2}{3}$

	<p>Overlapping $P(A) + P(B) - P(A \& B)$</p>	<p>11.) If you draw one card from a standard deck of cards what is P(10 card or spade) $\frac{4}{52} + \frac{13}{52} - \frac{1}{52} = \frac{16}{52} = \frac{4}{13}$</p>	<p>12. If you roll a die, what is P(an even number or 6) $\frac{3}{6} + \frac{1}{6} - \frac{1}{6} = \frac{3}{6} = \frac{1}{2}$</p>																
<p>P(A and B)</p>	<p>Independent $P(A) \cdot P(B)$</p>	<p>13.) P(flipping a coin and getting three heads in a row) $(\frac{1}{2})(\frac{1}{2})(\frac{1}{2}) = \frac{1}{8}$</p>	<p>14.) For a standard deck of cards, what is the probability of drawing a heart, replacing it, and then drawing a 2? $(\frac{13}{52})(\frac{4}{52}) = \frac{3}{104} \checkmark_{52}$</p>																
	<p>Dependent $P(A) \cdot P(B \text{ given } A)$</p>	<p>15.) What is the probability of drawing a 7 from a deck of cards, and then drawing a king without replacing the 7? $(\frac{4}{52})(\frac{4}{51}) = \frac{4}{663}$</p>	<p>16.) What is the probability of drawing a 3 of hearts from a deck of cards and then drawing a Ace without replacing the 3 of hearts? $(\frac{1}{52})(\frac{4}{51}) = \frac{1}{663}$</p>																
<p>Tables</p>	<p>Total the columns and rows. They must equal in one box. Don't forget to subtract out the overlap. Watch for the given information.</p>	<p style="text-align: center;">Car Ownership by Grade</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th></th> <th>Owns a Car</th> <th>Does Not Own a Car</th> <th>TOTAL</th> </tr> </thead> <tbody> <tr> <th>Junior</th> <td>16</td> <td>38</td> <td>54</td> </tr> <tr> <th>Senior</th> <td>45</td> <td>8</td> <td>53</td> </tr> <tr> <th>TOTAL</th> <td>61</td> <td>46</td> <td>107</td> </tr> </tbody> </table> <p>17) Find the probability that a randomly selected student will be a junior, given that the student owns a car. $= \frac{16}{61}$</p> <p>18) What is the probability that a junior does not own a car? Write your answer as a decimal. $\frac{38}{54}$</p> <p>19) Find the P(Owns a car or is a senior) Write your answer as a reduced fraction. $\frac{61}{107} + \frac{53}{107} - \frac{45}{107} = \frac{69}{107}$</p>			Owns a Car	Does Not Own a Car	TOTAL	Junior	16	38	54	Senior	45	8	53	TOTAL	61	46	107
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