Name: Per: Per:							
Integrated II Unit 10 Study Guide	22 What is the samula succes?						
12. What is the sample space? $\overrightarrow{B}$ $\overrightarrow{B}$ $\overrightarrow{D}$ $\overrightarrow{C}$ $\overrightarrow{B}$ $\overrightarrow{A}$ $\overrightarrow{D}$ $\overrightarrow{C}$ $\overrightarrow{B}$ $\overrightarrow{D}$ $\overrightarrow{A}$	23. What is the sample space?						
<ul> <li>13. Given the model below</li> <li>13. Given the model below</li> <li>13. Given the model below</li> <li>13. What is the probability of randomly selecting ?</li> </ul>	24. Given the model below A B C D E M N O P N N Z Z a. What is the probability of randomly selecting a vowel?						
b. What is the probability of randomly selecting ?	b. What is the probability of randomly selecting a consonant?						
c. Is the model uniform or non-uniform? Explain your reasoning.	c. Is the model uniform or non- uniform? Explain your reasoning.						
d. What is the probability of choosing a shape that is not $\diamondsuit$ ?	d. What is the probability of choosing a letter that is not a vowel?						
<ul> <li>14. You have 4 tee-shirts and 4 pair of shorts in a drawer, as shown in the diagram. You randomly choose one shirt and one pair of shorts from the drawer.</li> <li>Blue Green Blue White Gray Blue</li> <li>a. Use the Counting Principle to calculate the size of the sample space. Show your calculations.</li> <li>b. What is the probability of choosing a blue shirt and a gray pair of shorts?</li> </ul>	<ul> <li>25. You have 3 tee-shirts and 2 pair of shorts in a drawer, as shown in the diagram. You randomly choose one shirt and one pair of shorts from the drawer.</li> <li>Black Black Black Black</li> <li>Black Gray</li> <li>a. Use the Counting Principle to calculate the size of the sample space. Show your calculations.</li> <li>b. What is the probability of choosing a black shirt and any pair of shorts?</li> </ul>						
	Integrated II Unit 10 Study Guide         12. What is the sample space?         Image: Comparison of the state of the sample space of the sample space of the sample space of the sample space of the sample space. Show your calculations.         13. Given the model below         Image: Comparison of the shorts in a drawer, as shown in the diagram. You randomly choose one shirt and one pair of shorts from the crawer.         Image: Comparison of the sample space. Show your calculations.         b. What is the probability of choosing a shape that is not ?         14. You have 4 tee-shirts and 4 pair of shorts in a drawer, as shown in the diagram. You randomly choose one shirt and one pair of shorts from the crawer.         Image: Comparison of the sample space. Show your calculations.         b. What is the probability of choosing a shape that is not ?						

	Name:	Per:			
4. You randomly choose a shape from	15. You randomly choose a shape from	26. You randomly choose a shape from			
each group. What is the probability	each group. What is the probability	each group. What is the probability			
that both will be rectangles? Show	that both will be cylinders? Show	that both will be cylinders? Show			
	your calculations.	your calculations.			
$\Box \Delta \Delta$					
		222222			
		Group 2			
$\left  \begin{array}{c} \Box \\ \Box \\ \Box \\ \Box \\ \Delta \end{array} \right  = \left[ \begin{array}{c} O \\ \Delta \\ \Box \\ \Box \\ \Delta \end{array} \right]$	Group 2				
5. Suppose you randomly choose a	16. Suppose you randomly choose a	27. Suppose you randomly choose a			
marble from a bag of 20 marbles.	marble from a bag of 25 marbles.	marble from a bag of 10 marbles.			
Show your calculations in	Show your calculations in	Show your calculations in			
answering the questions.	answering the questions.	answering the questions.			
R		17 Contraction of the second s			
a. You draw out a marble, replace it,	a. You draw out a marble, replace it, and	a. You draw out a marble, replace it,			
nrobability of choosing a shaded marble	probability of choosing an unshaded	and then draw out another. What is the			
and then an unshaded one?	marble and then a shaded one?	and then a shaded marble?			
b. Suppose instead that you do not	b. Suppose instead that you do not	b. Suppose instead that you do not			
replace the first marble. What is the	replace the first marble. What is the	replace the first marble. What is the			
probability of choosing a shaded marble	probability of choosing an unshaded	probability of choosing a shaded marble			
and then an unshaded one?	marble and then a shaded one?	and then a shaded marble?			
6. There are 400 tickets in a raffle.	17. There are 350 tickets in a raffle.	28. There are 1000 tickets in a raffle.			
You buy 12 tickets. One winning	You buy 3 tickets. One winning	You buy 950 tickets. One winning			
What is the theoretical probability	What is the theoretical probability	ucket will be randomly chosen.			
that you will win the raffle?	that you will win the raffle?	that you will win the raffle?			
b. Out of 400 numbers generated, the	b. Out of 350 numbers generated, the	b. Out of 1000 numbers generated, the			
numbers on your raffle tickets appear 6	numbers on your raffle tickets appear	numbers on your raffle tickets appear			
times. Based on this simulation, what is	15 times. Based on this simulation,	1000 times. Based on this simulation,			
the experimental probability that you	that you will win the raffle?	what is the experimental probability			
	liat you will will the faille?	that you will will the faille?			
c. Compare the theoretical probability	c. Define theoretical probability in	c. Why is the theoretical probability			
of winning to the experimental.	comparison to experimental probability.	different from the experimental			
		probability?			

Name:									Pe	er:				
7. Oceanview High School.			18. Northvale Junior High School.					29. (	29. Cedar Hills High School					
		Ger Male	ider Female	Total			Grac 7th	1e Rth	Total				Not	pation
pation	Plays	105	53	158	red	Art	34	36	70			In a Club	in a Club	Total
rticij	Doesn't				eferi	Music	27	58	85		Freshmen	117	17	134
ts Pa	play sports	30	44	74	Pr	Books	16	29	45	e	Sophomores	142	41	183
Spor	Total	135	97	232		Sports	43	37	280	Grad	Juniors	114	37	151
a. Na	me the tw	o varial	bles displa	yed in	a. Na	me the tw	vo varia	bles dis	played in		Seniors	102	50	152
the ta	able.				the ta	able.					Total	475	145	620
b. How many of the students are male and do not play sports?				b. How many of the students are in 8 <sup>th</sup> grade and prefer art?					a. Na the t	<ul><li>a. Name the two variables displayed in the table.</li><li>b. How many of the students are</li></ul>				
c. How many of the students play sports? c. How many of the students prefer sports?						prefer	fresh	freshmen and in a club?						
d. If a what plays	a student i is the prol sports?	s select bability	ed at rand that he or	om, • she	d. If a student is selected at random, what is the probability that he or she is in 9 <sup>th</sup> grade?					<ul><li>c. How many of the students are juniors?</li><li>d. If a student is selected at random, what is the probability that he or she is in a club?</li></ul>				
e. What is the probability that a randomly selected student is a male or plays sports? e. What is the probability that a randomly selected student is an 8 <sup>th</sup> grader who prefers art?						e. W rand club	e. What is the probability that a randomly selected student is either in a club or not in a club?							
f. Wł rando given	f. What is the probability that a randomly selected student is a male, given that he plays sports? f. What is the probability that a randomly selected student is a 7 <sup>th</sup> grader, given that he or she prefers music?						f. What is the probability that a randomly selected student is a sophomore, given that he or she is not in a club?				is not			
8. Suppose you must choose a 5-digit code for your locker using the digits 0 through 9, and no digit can be used more than once. How many 5- digit codes are possible?			19. Suppose you must choose a 4-digit code for your locker using the digits 0 through 9, and no digit can be used more than once. How many 4- digit codes are possible?				30. 5	Suppose you m code for your lo ) through 9, an ised more thar ligit codes are	ust cho ocker u d no di 1 once. possib	oose a 6 sing th git can How r le?	5-digit e digits be nany 6-			

	Name:	Per:
9. An archery target has two scoring rectangles inside a rectangle.	20. An archery target has two scoring rectangles inside a rectangle.	31. An archery target has two scoring rectangles inside a rectangle.
a. What are the areas of the two shaded regions?	a. What are the areas of the two shaded regions?	a. What are the areas of the two shaded regions?
b. What is the probability of an arrow hitting a random spot on the target and landing in one of the scoring rectangles?	b. What is the probability of an arrow hitting a random spot on the target and landing in one of the scoring rectangles?	b. What is the probability of an arrow hitting a random spot on the target and landing in one of the scoring rectangles?
10. There are 11 players on a volleyball team, but only 6 players can be on the court to start a match. How many different starting lineups are possible?	21. There are 10 players on a water polo team, but only 7 players can be in the water to start the game. How many different starting lineups are possible?	32. There are 25 players on a tennis team, but only 2 players can play the first doubles match. How many different starting lineups are possible?
<ul> <li>11. You randomly choose 2 blocks from the set.</li> <li>F E M Q S</li> <li>D D G</li> <li>D D A H</li> <li>M C X</li> <li>a. If you choose two blocks at the same time, what is the probability that both bocks will have a vowel on them?</li> </ul>	<ul> <li>22. You randomly choose 2 blocks from the set.</li> <li>F E M O</li> <li>D D A</li> <li>a. If you choose two blocks at the same time, what is the probability that both bocks will have a consonant on them?</li> </ul>	<ul> <li>33. You randomly choose 2 blocks from the set.</li> <li>E M O S</li> <li>Ø B O G</li> <li>D T A H</li> <li>M C X</li> <li>a. If you choose two blocks at the same time, what is the probability that the first block will have a B on it and the second block will have a vowel on it?</li> </ul>
b. If you choose two blocks at the same time, what is the probability that both blocks will have a T on them?	b. If you choose two blocks at the same time, what is the probability that both blocks will have a vowel on them?	b. If you choose two blocks at the same time, what is the probability that both blocks will have a letter on them?