

Learning Target: Students will be able to distinguish the difference between $P(x) = 0$, $P(x) = 1$, and $0 < P(x) < 1$

Impossible versus inevitable events and everything in between

- P(President Obama being elected President of the United States again) = _____
a. 0 b. 1 c. between 0 and 1
- P(you having statistics class today) = _____
a. 0 b. 1 c. between 0 and 1
- P(Snow day tomorrow)
a. 0 b. 1 c. between 0 and 1

Learning Target: Students will be able to decide to multiply, add, or count to find probability of event(s)

Learning Target: Students will be able to rewrite verbal statements as probability statements as well as interpret probability statements written in shorthand notation

Learning Target: Students will be able to determine probabilities related to replacement and no replacement

Sample Space: 5 red marbles, 3 black marbles, 2 green marbles use R = Red marble and B = Black marble and G = Green marble

<p>4. Determine the probability that you draw a red or a black marble from the given sample space State answer as a fraction (do not simplify)</p> <p>Write the related probability statement</p> <p>Circle the method of determination of the probability</p> <ul style="list-style-type: none"> -Add fractions and subtract overlap -Multiply fractions -Count items in sample space -Used complement 	<p>5. Determine the probability that you draw a red and a black marble from the given sample space in two draws with replacement State answer as a fraction (do not simplify)</p> <p>Write the related probability statement</p> <p>Circle the method of determination of the probability</p> <ul style="list-style-type: none"> -Add fractions and subtract overlap -Multiply fractions -Count items in sample space -Used complement 	<p>6. Determine the probability that you draw two green marbles from the given sample space without replacement State answer as a fraction (do not simplify)</p> <p>Write the related probability statement</p> <p>Circle the method of determination of the probability</p> <ul style="list-style-type: none"> -Add fractions and subtract overlap -Multiply fractions -Count items in sample space -Used complement
<p>7. Find $P(R \text{ or } G) = \underline{\hspace{2cm}}$</p>	<p>8. Find $P(R, R, \text{ then } G \text{ w/o replace})$</p> <p>$= \underline{\hspace{2cm}}$</p> <p>$\approx \underline{\hspace{2cm}}$ four decimal place approximation</p>	<p>9. Find $P(B, B, \text{ then } R \text{ with replace})$</p> <p>$= \underline{\hspace{2cm}}$</p> <p>$\approx \underline{\hspace{2cm}}$ four decimal place approximation</p>
<p>10. Find $P(B') = \underline{\hspace{2cm}}$</p>	<p>11. Find $P(B, R, \text{ then } G \text{ w/o replace})$</p> <p>$= \underline{\hspace{2cm}}$</p> <p>$\approx \underline{\hspace{2cm}}$ four decimal place approximation</p>	<p>12. Find $P(G, B, \text{ then } R \text{ with replace})$</p> <p>$= \underline{\hspace{2cm}}$</p> <p>$\approx \underline{\hspace{2cm}}$ four decimal place approximation</p>

Learning Target: Determine odds (odds in favor or odds against)

Note: Odds in favor = $\frac{P(A)}{P(A')} = \frac{P(A)}{P(\overline{A})}$ Note: Odds against = $\frac{P(A')}{P(A)} = \frac{P(\overline{A})}{P(A)}$

Note: \overline{A} is another method of denoting complement of A Note: Three forms of odds $\frac{1}{2}$ 1 to 2 1:2

Sample space: The letters in the word “MISSISSIPPI”

- 13. Find the odds in favor of drawing an “I” state answer using colon notation_____
- 14. Find the odds against drawing a “P” state answer using colon notation_____
- 15. Name the two letters that are equally likely to be drawn at random_____
- 16. Name the letter is that is least likely to be drawn at random_____

Learning Target: Use a tree diagram to determine probability related to four child families

Four Children Tree Diagram		17. List the sample space for all the possible four child families		
B	B	B	B	
		G	B	
		B	G	
	G	B	B	
		G	B	
		G	G	
G	B	B	B	
		G	B	
		B	G	
	G	B	B	
		G	B	
		G	G	

You will be given a series of entry and exit slips related to in class practice and the following book assignments

These entry and exit slips will be graded for accuracy not completion! Students will be allowed to use book assignments on entry and exit slips, but not the textbook itself!

- Book Assignment #1
Section 4.1 & 4.2 pp146-150 #2-32 evens
- Book Assignment #2
Section 4.3 pp156-158 #2-24 evens
- Book Assignment #3
Section 4.4 pp165-168 #2-24 evens
- Book Assignment #4
Section 4.5 pp171-174 #2-28 evens
- Book Assignment #5
Section 4.7 pp186-189 #2-36 evens