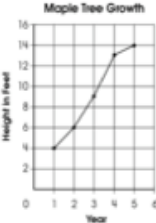
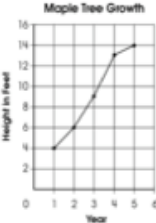
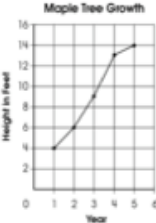


**5th Mathematics Ohio Achievement Test
Data Analysis and Probability Standard**

Benchmark A

Question 36	March 2008		B																										
Question 29	March 2006	<p>In your Answer Document, construct a frequency table to summarize the data. Be sure to include labels. (2 points)</p> <p>Scoring Guidelines</p> <table border="1"> <thead> <tr> <th data-bbox="735 478 824 499">Points</th> <th data-bbox="1060 478 1222 499">Student Response</th> </tr> </thead> <tbody> <tr> <td data-bbox="735 499 824 699">2</td> <td data-bbox="833 499 1458 699"> <p>The focus of this task is constructing a frequency table. The response includes an accurate frequency table that is labeled. Sample responses:</p> <p align="center">Student's Favorite Dessert</p> <table border="1"> <thead> <tr> <th>Dessert</th> <th>Frequency</th> </tr> </thead> <tbody> <tr> <td>Brownies</td> <td> </td> </tr> <tr> <td>Cookies</td> <td> </td> </tr> <tr> <td>Cupcakes</td> <td> </td> </tr> <tr> <td>Ice Cream</td> <td> </td> </tr> </tbody> </table> </td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th colspan="2" data-bbox="833 730 1125 762">Student's Favorite Dessert</th> </tr> <tr> <th>Dessert</th> <th>Frequency</th> </tr> </thead> <tbody> <tr> <td>Brownies</td> <td>4</td> </tr> <tr> <td>Cookies</td> <td>2</td> </tr> <tr> <td>Cupcakes</td> <td>1</td> </tr> <tr> <td>Ice Cream</td> <td>5</td> </tr> </tbody> </table>	Points	Student Response	2	<p>The focus of this task is constructing a frequency table. The response includes an accurate frequency table that is labeled. Sample responses:</p> <p align="center">Student's Favorite Dessert</p> <table border="1"> <thead> <tr> <th>Dessert</th> <th>Frequency</th> </tr> </thead> <tbody> <tr> <td>Brownies</td> <td> </td> </tr> <tr> <td>Cookies</td> <td> </td> </tr> <tr> <td>Cupcakes</td> <td> </td> </tr> <tr> <td>Ice Cream</td> <td> </td> </tr> </tbody> </table>	Dessert	Frequency	Brownies		Cookies		Cupcakes		Ice Cream		Student's Favorite Dessert		Dessert	Frequency	Brownies	4	Cookies	2	Cupcakes	1	Ice Cream	5	
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Benchmark D

Question 3	Spring 2007	D
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Benchmark E

Question 32	March 2006	A
Question 12	Spring 2007	C

Benchmark F

Question 3	March 2006	B
Question 8	March 2006	D
Question 43	March 2006	C

Benchmark H

Question 5	March 2006	<table border="1"> <thead> <tr> <th colspan="2" data-bbox="475 279 1396 300">Scoring Guidelines</th> </tr> <tr> <th data-bbox="475 310 589 331">Points</th> <th data-bbox="597 310 1396 331">Student Response</th> </tr> </thead> <tbody> <tr> <td data-bbox="475 342 589 583">2</td> <td data-bbox="597 342 1396 583"> <p>The focus of this task is finding and listing all possible outcomes of a problem situation. The response provides all possible combinations in a list, tree diagram or pictures.</p> <p>Sample response:</p> <ul style="list-style-type: none"> • Red, navy; Red, black; Red, tan; Green, navy; Green, black; Green, tan; White, navy; White, black; White, tan; Yellow, navy; Yellow, black; Yellow, tan • Tree diagram showing all the possible combinations <p>Drawing of all the combinations.</p> </td> </tr> <tr> <td data-bbox="475 594 589 783">1</td> <td data-bbox="597 594 1396 783"> <p>The response provides partial evidence of finding and listing all possible outcomes of a problem situation; however, the solution may be incomplete or slightly flawed.</p> <p>For example, the response may:</p> <ul style="list-style-type: none"> • Provide at least 6 correct combinations. • State that there are 12 combinations, but fail to list them. • Provide a tree diagram with omissions. </td> </tr> <tr> <td data-bbox="475 793 589 982">0</td> <td data-bbox="597 793 1396 982"> <p>The response provides inadequate evidence of finding and listing all possible outcomes of a problem situation. The response provides major flaws in reasoning or irrelevant information.</p> <p>For example, the response may:</p> <ul style="list-style-type: none"> • Provide a random list of a few combinations. • Be blank or provide unrelated statements. • Recopy information from the stem. </td> </tr> </tbody> </table>	Scoring Guidelines		Points	Student Response	2	<p>The focus of this task is finding and listing all possible outcomes of a problem situation. The response provides all possible combinations in a list, tree diagram or pictures.</p> <p>Sample response:</p> <ul style="list-style-type: none"> • Red, navy; Red, black; Red, tan; Green, navy; Green, black; Green, tan; White, navy; White, black; White, tan; Yellow, navy; Yellow, black; Yellow, tan • Tree diagram showing all the possible combinations <p>Drawing of all the combinations.</p>	1	<p>The response provides partial evidence of finding and listing all possible outcomes of a problem situation; however, the solution may be incomplete or slightly flawed.</p> <p>For example, the response may:</p> <ul style="list-style-type: none"> • Provide at least 6 correct combinations. • State that there are 12 combinations, but fail to list them. • Provide a tree diagram with omissions. 	0	<p>The response provides inadequate evidence of finding and listing all possible outcomes of a problem situation. The response provides major flaws in reasoning or irrelevant information.</p> <p>For example, the response may:</p> <ul style="list-style-type: none"> • Provide a random list of a few combinations. • Be blank or provide unrelated statements. • Recopy information from the stem.
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Benchmark I

Question 33	Spring 2009	Scoring Guidelines		
		Points	Student Response	
		4 point	The focus of this task is creating a simple experiment so that each choice will have the same probability. The response provides the correct number of cards to be added so that the probability of picking one of the colors is the same for all choices with an adequate explanation AND the correct probability of picking one of the colors. Sample response: Monica has 5 green cards. She could add 2 red cards, 1 blue card and 5 yellow cards. I know this because each color must have the same number of cards. The probability $\frac{5}{20} \quad \frac{1}{4}$ would be $\frac{5}{20}$ or $\frac{1}{4}$ for any color.	
		3 point	The response provides evidence of creating a simple experiment so that each choice will have the same probability; however, the solution may contain a slight error, a flaw or a vague explanation. Sample response: <ul style="list-style-type: none"> Provide the number of cards added without an adequate explanation but provide the correct probability. Make a minor counting error in the number of one of the cards that leads to an incorrect number of cards but gives the correct probability. 	
		2 point	The response provides partial evidence of creating a simple experiment so that each choice will have the same probability; however, the solution is incomplete and/or contains minor flaws. Sample response: <ul style="list-style-type: none"> Only provide the correct number of cards added of each type with or without an adequate explanation, but fail to provide a probability. 	
		1 point	The response provides minimal evidence of creating a simple experiment so that each choice will have the same probability. The response has major flaws and errors in reasoning. Sample response: <ul style="list-style-type: none"> Provide the correct probability of drawing any of the color cards before or after adding the yellow cards. Only provide an adequate explanation for finding the number of cards; such as, "All have the same amount." 	
0 point	The response provides inadequate evidence of creating a simple experiment so that each choice will have the same probability. The response provides major flaws in explanations or irrelevant information. Sample response: <ul style="list-style-type: none"> State that it is impossible to have the same probability since there are different numbers of cards. Restate the information provided in the item. Be blank or give irrelevant information. 			
Question 32	March 2008			D
Question 22	March 2006			D

Benchmark J

Question 13	Spring 2009	A
Question 46	Spring 2009	B
Question 41	March 2008	B
Question 17	March 2006	A

Benchmark K

Question	Spring 2007	B
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