

**4th Mathematics Ohio Graduation Test  
Measurement Standard**

**Benchmark A**

Question 12	Spring 2010	D
Question 32	Spring 2010	A
Question 35	March 2006	C
Question 41	March 2006	A
Question 4	Spring 2007	A
Question 18	Spring 2007	C

**Benchmark B**

Question 5	Spring 2010	<table border="1" style="width: 100%;"> <thead> <tr> <th style="width: 15%;">Points</th> <th>Student Response</th> </tr> </thead> <tbody> <tr> <td>2 point</td> <td> <p><b>Exemplar Response:</b></p> <ul style="list-style-type: none"> <li>• Kim will have to fill Container B the fewest times. A pint holds more water than a cup.</li> <li>• Kim will have to fill Container B the fewest times. She will need only 2 pints to get a quart but she would need 4 cups.</li> </ul> <p>The focus of the task is relating the number of units to the size of the units used to measure an object. The response correctly states the container that would be filled the fewest times with an adequate explanation.</p> </td> </tr> <tr> <td>1 point</td> <td> <p>The response shows partial evidence of relating the number of units to the size of the units used to measure an object; however, the response may be incomplete or slightly flawed.</p> <p>1 point sample answer: For example, the response may:</p> <ul style="list-style-type: none"> <li>• State that she will have to fill Container B the fewest number of times but provide an inadequate explanation with mathematical reasoning.</li> <li>• State that a pint is bigger than a cup but fail to state that she should use Container B.</li> </ul> </td> </tr> <tr> <td>0 point</td> <td> <p>The response provides inadequate evidence of relating the number of units to the size of the units used to measure an object. The response has major flaws or errors in reasoning.</p> <p>0 point sample answer: For example, the response may:</p> <ul style="list-style-type: none"> <li>• State Container A or B only.</li> <li>• Restate the information provided in the stem.</li> <li>• Be blank or give irrelevant information.</li> </ul> </td> </tr> </tbody> </table>	Points	Student Response	2 point	<p><b>Exemplar Response:</b></p> <ul style="list-style-type: none"> <li>• Kim will have to fill Container B the fewest times. A pint holds more water than a cup.</li> <li>• Kim will have to fill Container B the fewest times. She will need only 2 pints to get a quart but she would need 4 cups.</li> </ul> <p>The focus of the task is relating the number of units to the size of the units used to measure an object. The response correctly states the container that would be filled the fewest times with an adequate explanation.</p>	1 point	<p>The response shows partial evidence of relating the number of units to the size of the units used to measure an object; however, the response may be incomplete or slightly flawed.</p> <p>1 point sample answer: For example, the response may:</p> <ul style="list-style-type: none"> <li>• State that she will have to fill Container B the fewest number of times but provide an inadequate explanation with mathematical reasoning.</li> <li>• State that a pint is bigger than a cup but fail to state that she should use Container B.</li> </ul>	0 point	<p>The response provides inadequate evidence of relating the number of units to the size of the units used to measure an object. The response has major flaws or errors in reasoning.</p> <p>0 point sample answer: For example, the response may:</p> <ul style="list-style-type: none"> <li>• State Container A or B only.</li> <li>• Restate the information provided in the stem.</li> <li>• Be blank or give irrelevant information.</li> </ul>
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Question 4	March 2006	B								
Question 30	Spring 2007	C								

**Benchmark C**

Question 40	Spring 2010	C
Question 30	May 2009	A
Question 8	March 2008	B
Question 22	March 2006	C

## Benchmark D

Question 44	Spring 2010	Scoring Guidelines	
		Points	Student Response
		2 point	<p>Sample Correct Responses</p> <ul style="list-style-type: none"> <li>• 24. I counted the lines all around the shape.</li> <li>• <math>5 + 2 + 3 + 2 + 5 + 2 + 3 + 2 = 24</math>. I counted the lines to find how long each side was and then added them together.</li> </ul> <p>The focus of this task is to provide evidence of developing and using strategies to find perimeter. The response correctly finds the perimeter and provides an adequate explanation that reveals an understanding of how perimeter is found.</p>
		1 point	<p>The response provides partial evidence of developing and using strategies to find perimeter; however, the solution is incomplete or slightly flawed.</p> <p>For example, the response may:</p> <ul style="list-style-type: none"> <li>• State the correct answer of 24 only.</li> <li>• State an incorrect perimeter due to a counting or calculation error; however, uses and explains an appropriate procedure for finding perimeter.</li> </ul> <p>1 point sample answer: NA</p>
		0 point	<p>The response provides inadequate evidence of developing and using an appropriate strategy to find perimeter. The response will provide major flaws in reasoning or irrelevant information.</p> <p>For example, the response may:</p> <ul style="list-style-type: none"> <li>• State that the perimeter is 20 squares (area) and that they counted the number of squares in the figure.</li> <li>• Be blank or state unrelated statements.</li> <li>• Recopy information from the stem.</li> </ul> <p>0 point sample answer: NA</p>

Question 15	May 2009	Points	Student Response
		4 point	<p>Sample Correct Responses:</p> <ul style="list-style-type: none"> <li>• She needs 24 inches of ribbon. <math>5 + 5 + 7 + 7 = 24</math>. 5 inches by 4 inches. I picked one side to be 5 inches so there was 8 inches of ribbon left, so then the other side would be 4 inches.</li> <li>• Twenty four inches of ribbon is needed. <math>5 \times 2 = 10</math>, <math>7 \times 2 = 14</math>, <math>10 + 14 = 24</math>. length = 8, width = 1. <math>8 + 8 + 1 + 1 = 18</math> inches.</li> </ul> <p>The focus of this task is using a strategy to find perimeter of a rectangle. The response provides the correct perimeter with an appropriate explanation or calculations and correct dimensions for another card with supporting work or an adequate explanation. NOTE: There are an infinite number of cards that Karen could make, and correct measurements include 1 inch x 8 inches, 2 inches x 7 inches, 3 inches x 6 inches, and 4 inches x 5 inches.</p>
		3 point	<p>The response provides evidence of using a strategy to find perimeter of a rectangle; however, the response may contain a slight flaw or a vague explanation.</p> <p>Sample response:</p> <ul style="list-style-type: none"> <li>• Provide the correct perimeter with appropriate work and state the dimensions of another card she could make but fail to show work or provide an explanation for another card.</li> <li>• Provide the correct perimeter with appropriate work and show an appropriate strategy for finding the dimensions of another card, but fail to correctly state both the length and the width of another card.</li> </ul>
		2 point	<p>The response shows partial evidence of using a strategy to find perimeter of a rectangle; however, the response is incomplete and/or contains minor flaws.</p> <p>Sample response:</p> <ul style="list-style-type: none"> <li>• Only provide the perimeter of the card with work or an adequate explanation.</li> <li>• Find the perimeter of the card and find the dimensions of another card, but fail to provide work or an explanation for either part.</li> </ul>
		1 point	<p>The response provides minimal evidence of using a strategy to find perimeter of a rectangle. The response has major flaws and errors in reasoning.</p> <p>Sample response:</p> <ul style="list-style-type: none"> <li>• State the perimeter of the original card only.</li> <li>• Only provide a correct strategy for finding the perimeter.</li> </ul>
		0 point	<p>The response provides inadequate evidence of using a strategy to find perimeter of a rectangle. The response provides major flaws in explanations or irrelevant information.</p> <p>Sample response:</p> <ul style="list-style-type: none"> <li>• State that she needs 12 inches of ribbon.</li> <li>• Restate the information provided in the item.</li> <li>• Be blank or give irrelevant information.</li> </ul>

### Benchmark D - Continued

Question 3	March 2008		B				
Question 9	March 2006		B				
Question 25	March 2006	<p><b>Scoring Guidelines</b></p> <table border="1"> <thead> <tr> <th>Points</th> <th>Student Response</th> </tr> </thead> <tbody> <tr> <td>2</td> <td> <p>The focus of this task is developing and using strategies to find the perimeter of an irregular shape. The response provides the correct perimeter and demonstrates a strategy that can be used to find the perimeter.</p> <p>Sample Correct Responses:</p> <ul style="list-style-type: none"> <li>• There are 10 toothpicks in the shape and <math>10 \times 3 = 30</math>. The perimeter is 30 inches.</li> <li>• 30 inches. I added all the toothpicks. <math>3 + 3 + 3 + 3 + 3 + 3 + 3 + 3 + 3 + 3 = 30</math></li> <li>• Perimeter = 30. I counted all the lines around the shape and got 30.</li> </ul> <p>NOTE: The correct answer without correct units is acceptable.</p> </td> </tr> </tbody> </table>	Points	Student Response	2	<p>The focus of this task is developing and using strategies to find the perimeter of an irregular shape. The response provides the correct perimeter and demonstrates a strategy that can be used to find the perimeter.</p> <p>Sample Correct Responses:</p> <ul style="list-style-type: none"> <li>• There are 10 toothpicks in the shape and <math>10 \times 3 = 30</math>. The perimeter is 30 inches.</li> <li>• 30 inches. I added all the toothpicks. <math>3 + 3 + 3 + 3 + 3 + 3 + 3 + 3 + 3 + 3 = 30</math></li> <li>• Perimeter = 30. I counted all the lines around the shape and got 30.</li> </ul> <p>NOTE: The correct answer without correct units is acceptable.</p>	
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Question 32	March 2006		C				