

**NEW YORK STATE  
COMPONENT RETEST**

**MATHEMATICS A  
COMPONENT 4  
MODULE 2**

**TUESDAY, APRIL 27, 2004**

**SCORING KEY  
AND  
RATING GUIDE**

**Multiple Choice Key**

<b>1</b>	<b>3</b>
<b>2</b>	<b>2</b>
<b>3</b>	<b>4</b>
<b>4</b>	<b>2</b>
<b>5</b>	<b>3</b>
<b>6</b>	<b>1</b>

**Math A Component Retest**  
**April 2004**  
**Component 4, Module 2**

**Key to Multiple-Choice Questions**

(1)	3
(2)	2
(3)	4
(4)	2
(5)	3
(6)	1

**Rubrics**

(7)

- [ 4 ] 117, and appropriate work is shown, such as  $x + 2x - 9 = 180$  to find  $x = 63$  and  $m\angle HEA = 2x - 9 = 117$ , and  $m\angle HEA = m\angle GFD$ .
- [ 3 ] Appropriate work is shown, but one computational error is made.
- or*
- [ 3 ] An incorrect expression for  $m\angle HEA$  is used, but appropriate work is shown.
- [ 2 ] Appropriate work is shown, but two or more computational errors are made.
- or*
- [ 2 ] Appropriate work is shown, but one conceptual error is made, such as using  $90^\circ$  as the sum of the two angles.
- or*
- [ 2 ] Appropriate work is shown to find  $x = 63$ , but  $m\angle GFD$  is not found or is found incorrectly.
- [ 1 ] Appropriate work is shown, but one conceptual error and one computational error are made.
- or*
- [ 1 ]  $m\angle HEB = x$  and  $m\angle HEA = 2x - 9$  is written, but no further correct work is shown.
- or*
- [ 1 ] A statement is made that  $m\angle GFD = m\angle HEA$ , but no solution is found.
- or*
- [ 1 ] A statement is made that  $m\angle HEA + m\angle HEB = 180$ , but no solution is found.
- or*
- [ 1 ] 117, but no work is shown.
- [ 0 ] A zero response is completely incorrect, irrelevant, or incoherent or is a correct response that was obtained by an obviously incorrect procedure.

(8)

[ 4 ]  $4w + 4 = 372$  or an equivalent equation and width = 92 and length = 94, and appropriate work is shown, such as solving the equation or trial and error with at least three trials and appropriate checks.

[ 3 ] The correct equation is given and appropriate work is shown, but one computational error is made in finding the length and width.

*or*

[ 3 ] The correct equation is given and appropriate work is shown, but only one dimension is found.

*or*

[ 3 ] Width = 92 and length = 94, and appropriate work is shown, and a correct equation is written, but it is not written in terms of  $w$ .

[ 2 ] The correct equation is given and appropriate work is shown, but two or more computational errors are made in finding the length and width.

*or*

[ 2 ] An incorrect equation of equal difficulty, such as  $2w + 2 = 372$  or  $4w + 2 = 372$ , is solved appropriately, and both dimensions are given.

*or*

[ 2 ] The trial-and-error method is used to find the correct length and width and at least three trials and appropriate checks are shown, but no equation is written.

[ 1 ] The trial-and-error method is used to find the correct length and width, but only two trials and appropriate checks are shown, and no equation is written.

*or*

[ 1 ] The trial-and-error method is attempted and at least six systematic trials and appropriate checks are shown, but no solution is found and no equation is written.

*or*

[ 1 ] The area formula is used and a correct quadratic equation in standard form is written, but no further correct work is shown.

*or*

[ 1 ] An incorrect equation of equal difficulty is solved appropriately, but only one dimension is found.

*or*

[ 1 ]  $4w + 4 = 372$  or an equivalent equation, but no further correct work is shown.

*or*

[ 1 ] Width = 92 and length = 94, but no work or only one trial with appropriate check is shown.

[ 0 ] Width = 92 *or* length = 94, but no work is shown.

*or*

[ 0 ] A zero response is completely incorrect, irrelevant, or incoherent or is a correct response that was obtained by an obviously incorrect procedure.

(9)

[ 4 ]  $A'(8,2)$ ,  $B'(8,10)$ , and  $C'(2,10)$  are correctly graphed and labeled,  $\Delta A'B'C'$  is drawn, and 4:1, and appropriate work is shown, such as calculating the areas of both triangles or stating that if the lengths of the sides are doubled the area of the new triangle is four times the area of the original triangle.

[ 3 ] Appropriate work is shown, but one computational or graphing error is made.

*or*

[ 3 ]  $\Delta A'B'C'$  is drawn correctly, but it is not labeled, areas are in the ratio 4:1, and appropriate work is shown.

*or*

[ 3 ] One point of  $\Delta A'B'C'$  is graphed and labeled incorrectly, but appropriate work is shown to compare the areas.

*or*

[ 3 ]  $\Delta A'B'C'$  is graphed and labeled correctly and the correct areas are found, but the ratio of the areas is not found or is found incorrectly.

[ 2 ] Appropriate work is shown, but two or more computational or graphing errors are made.

*or*

[ 2 ] Appropriate work is shown, but one conceptual error is made, such as stating the ratio as 1:4 or performing a translation of +2 units.

*or*

[ 2 ]  $\Delta A'B'C'$  is graphed and labeled correctly, but the area of one triangle is not found.

[ 1 ]  $\Delta A'B'C'$  is graphed and labeled correctly, but no further correct work is shown.

*or*

[ 1 ] Areas are in the ratio 4:1, but no graph is drawn and no work is shown.

[ 0 ] A zero response is completely incorrect, irrelevant, or incoherent or is a correct response that was obtained by an obviously incorrect procedure.