Computer-Based Sample Test Scoring Guide
Grade 10 Math
AzM2

Updated January 2020

Prepared by the Arizona Department of Education
About the Sample Test Scoring Guide

The AzM2 Sample Test Scoring Guides provide details about the items, student response types, correct responses, and related scoring considerations for AzM2 Sample Test items.

The Grade 10 Math Sample Test is broken up into two parts:

- Grade 10 Math Sample Test #1
- Grade 10 Math Sample Test #2

Within this guide, each item is presented with the following information:

- Item number
- Cluster
- Content Standard
- Depth of Knowledge (DOK)
- Static presentation of the item
- Static presentation of student response field (when appropriate)
- Answer key, rubric or exemplar
- Applicable score point(s) for each item

The items included in this guide are representative of the kinds of items that students can expect to experience when taking the computer-based test for AzM2 Grade 10 Math.
Grade 10 Math Sample Test #1

<table>
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<th>Item Number</th>
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<tbody>
<tr>
<td>1</td>
<td>G.G-GPE.B</td>
<td>G.G-GPE.B.6</td>
<td>2</td>
</tr>
</tbody>
</table>

A line segment has endpoints $S(-9, -4)$ and $T(6, 5)$. Point $R$ lies on $ST$ such that the ratio of $SR$ to $RT$ is $2:1$.

What are the coordinates of point $R$?

\[ R(\_1, \_2) \]

(1 Point) Student entered two correct coordinates.
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Spring 2020

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</table>

Some friends spent a total of $12.00 on popcorn and drinks at the movie theater. A bucket of popcorn cost $2.00 and a drink cost $1.50.

A. Create an equation to represent the relationship between the number of buckets of popcorn, $x$, and the number of drinks, $y$, the friends bought for $12.00.

The friends bought 4 drinks.

B. How many buckets of popcorn did they buy?

A. $2x + 1.5y = 12$

B. $3$

(2 Points) A: Student entered $2x + 1.5y = 12$ or any equivalent equation; B: Student entered 3 or any equivalent value.
Steven constructs an equilateral triangle inscribed in circle $P$. His first three steps are shown.

1. He creates radius $PQ$ using a point $Q$ on the circle.

2. Using point $Q$ as the center and the length of $PQ$ as a radius, he uses a compass to construct an arc that intersects the circle at $R$.

3. Using point $R$ as the center and the length of $PQ$ as a radius, he uses a compass to construct an arc that intersects the circle at $S$.

What should be Steven’s next step in constructing the equilateral triangle?

(A) Draw line segments connecting the points $Q$, $R$, and $S$ to construct $\triangle QRS$.

(B) Draw line segments connecting the points $P$, $R$, and $S$ to construct $\triangle PRS$.

(C) Construct an arc intersecting the circle by using point $S$ as the center and the length of $PQ$ as a radius.

(D) Construct an arc intersecting the circle by using point $P$ as the center and the length of $PQ$ as a radius.

(1 Point) Student selected the correct option.
All corresponding sides and angles of $\triangle RST$ and $\triangle DEF$ are congruent.
Select all of the statements that must be true.

☐ There is a reflection that maps $\overline{RS}$ to $\overline{DE}$.
☐ There is a dilation that maps $\triangle RST$ to $\triangle DEF$.
☒ There is a translation followed by a rotation that maps $\overline{RT}$ to $\overline{DF}$.
☒ There is a sequence of transformations that maps $\triangle RST$ to $\triangle DEF$.
☐ There is not necessarily a sequence of rigid motions that maps $\triangle RST$ to $\triangle DEF$.

(1 Point) Student selected the two correct true statements.
The graph of quadratic function $f(x)$ has a minimum at $(-2, -3)$ and passes through the point $(2, 13)$. The function $g(x)$ is represented by the equation $g(x) = -(x + 2)(x - 3)$.

How much greater is the $y$-intercept of $g(x)$ than $f(x)$?

(1 Point) Student entered 5 or any equivalent value.
Two functions, \( q(x) \) and \( r(x) \), are shown.

\[
q(x) = (1.05)^x \\
r(x) = 38x + 125
\]

Both functions have domains of \( x > 0 \).

Which statement about \( q(x) \) and \( r(x) \) is true?

A) \( q(x) > r(x) \) for all values of \( x \).
B) \( r(x) > q(x) \) for all values of \( x \).
C) \( q(x) > r(x) \) only for very large values of \( x \).
D) \( r(x) > q(x) \) only for very large values of \( x \).

(1 Point) Student selected the correct option.
An equation is shown.
\[4[a + (-7)] + 10[2a + 3] = 1\]

Drag a statement to each box to justify each step.

<table>
<thead>
<tr>
<th>Steps</th>
<th>Justifications</th>
</tr>
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<tbody>
<tr>
<td>1. [4[a + (-7)] + 10[2a + 3] = 1]</td>
<td>1. Given</td>
</tr>
<tr>
<td>2. [4a + (-28) + 20a + 30 = 1]</td>
<td>2. Distributive property</td>
</tr>
<tr>
<td>3. [(-28) + 4a + 20a + 30 = 1]</td>
<td>3. Commutative property of addition</td>
</tr>
<tr>
<td>4. [(-28) + (4a + 20a) + 30 = 1]</td>
<td>4. Associative property of addition</td>
</tr>
<tr>
<td>5. [(-28) + 24a + 30 = 1]</td>
<td>5. Addition</td>
</tr>
</tbody>
</table>

Addition property of equality

Multiplication property of equality

(1 Point) Student created a correct partial proof.
The coordinate plane shows \( \triangle FGH \) and \( \triangle F'G'H' \).

Which sequence of transformations can be used to show that \( \triangle FGH \sim \triangle F'G'H' \)?

A: a dilation about the origin with a scale factor of 2, followed by a 180º clockwise rotation about the origin

B: a dilation about the origin with a scale factor of 2, followed by a reflection over the line \( y = x \)

C: a translation 5 units up and 4 units left, followed by a dilation with a scale factor of \( \frac{1}{2} \) about point \( F'' \)

D: a 180º clockwise rotation about the origin, followed by a dilation with a scale factor of \( \frac{1}{2} \) about point \( F'' \)

(1 point) Student selected the correct option.
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<tr>
<td>9</td>
<td>G.G-GPE.B</td>
<td>G.G-GPE.B.4</td>
<td>2</td>
</tr>
</tbody>
</table>

Quadrilateral $RSTU$ has vertices $R(1, 3)$, $S(4, 1)$, $T(1, -3)$, and $U(-2, -1)$.

Which statement about quadrilateral $RSTU$ is true?

- Since the diagonals of quadrilateral $RSTU$ are not congruent, it is not a rectangle.
- Since the adjacent sides of quadrilateral $RSTU$ have equal slopes, it is not a rectangle.
- Since the diagonals of quadrilateral $RSTU$ are congruent, it is a rectangle.
- Since the adjacent sides of quadrilateral $RSTU$ have slopes that are negative reciprocals, it is a rectangle.

**[1 Point]** Student selected the correct option.
The model \( n(t) = 2^t \) represents the number of bacteria in a petri dish after \( t \) hours, where \( t = 0 \) represents the time when the bacteria were first put into the dish.

What is the correct value and interpretation of \( n(8) \)?

- \( n(8) = 256 \), so after 8 hours there are 256 bacteria.
- \( n(8) = 256 \), so after 256 hours there are 8 bacteria.
- \( n(8) = 3 \), so after 8 hours there are 3 bacteria.
- \( n(8) = 3 \), so after 3 hours there are 8 bacteria.

(1 point) Student selected the correct option.
Hannah has a cone made of steel and a cone made of granite.

- Each cone has a height of 10 centimeters and a radius of 4 centimeters.
- The density of steel is approximately 7.75 grams per cubic centimeter.
- The density of granite is approximately 2.75 grams per cubic centimeter.

What is the difference, to the nearest gram, of the masses of the cones?

(1 point) Student entered 838; any value between 837 and 838.1, inclusive.
Eric explains that all circles are similar using the argument shown.

1. Let there be two circles, circle A and circle B.
2. There exists a translation that can be performed on circle A such that it will have the same center as circle B.
3. 
4. Thus, there exists a sequence of transformations that can be performed on circle A in order to obtain circle B.
5. Therefore, circle A is similar to circle B.
6. Since circle A and circle B can be any circles, all circles are similar.

Which statement could be step 3 of the argument?

A. There exists a reflection that can be performed on circle A such that it will have the same radius as circle B.

B. There exists a dilation that can be performed on circle A such that it will have the same radius as circle B.

C. There exists a reflection that can be performed on circle B such that it will have the same center as circle A.

D. There exists a dilation that can be performed on circle B such that it will have the same center as circle A.

(1 point) Student selected the correct option.
Which expression is equivalent to \((2r^2 + r - 1) - (3r^2 + 4r - 5)\)?

- **A** \(-r^2 - 3r + 4\)
- **B** \(-r^2 + 5r - 6\)
- **C** \(5r^2 - 3r + 4\)
- **D** \(5r^2 + 5r - 6\)

(1 Point) Student selected the correct option.
Two triangles are shown. Which sequence of transformations could be performed on \( \triangle EFG \) to show that it is similar to \( \triangle JKL \)?

- **A.** Rotate \( \triangle EFG \) 90° clockwise about the origin, and then dilate it by a scale factor of \( \frac{1}{2} \) with a center of dilation at point \( F' \).
- **B.** Rotate \( \triangle EFG \) 180° clockwise about point \( E \), and then dilate it by a scale factor of 2 with a center of dilation at point \( E' \).
- **C.** Translate \( \triangle EFG \) 1 unit up, then reflect it across the \( x \)-axis, and then dilate it by a scale factor of \( \frac{1}{2} \) with a center of dilation at point \( E'' \).
- **D.** Reflect \( \triangle EFG \) across the \( x \)-axis, then reflect it across the line \( y = x \), and then dilate it by a scale factor of 2 with a center of dilation at point \( F'' \).

(1 Point) Student selected the correct option.
The gravitational potential energy of an object is given by the formula $P = mgh$.

Which equation is correctly solved for the height, $h$?

- A $h = P + mg$
- B $h = P - mg$
- $h = \frac{P}{mg}$
- D $h = Pmg$

(1 point) Student selected the correct option.
A system of equations is shown.

\[ 4c + 2d = 11 \]
\[ \frac{7}{2}d = 41 - 22c \]

What is the solution to the system?

\[ c = 1.45 \]
\[ d = 2.6 \]

(1 point) Student entered 1.45 or any equivalent value for \( c \) and 2.6 or any equivalent value for \( d \).
What is the exact perimeter of a parallelogram with vertices at (3, 2), (4, 4), and (6, 1)?

2\cdot\sqrt{10} + 2\cdot\sqrt{5}

(1 point) Student entered $2 \cdot \sqrt{10} + 2 \cdot \sqrt{5}$ or any equivalent expression.
A function is shown.

\[ h(t) = -t^2 + 10t - 16 \]

For which interval of \( t \)-values is the function both positive and increasing?

- (A) \( t < 5 \)
- (B) \( t > 8 \)
- (C) \( 2 < t < 5 \)
- (D) \( 5 < t < 8 \)

(1 point) Student selected the correct option.
(1 point) Student entered \((x^2 + 12)(x^2 - 12)\) or any equivalent expression.
A linear function is shown.

\[ f(x) = \frac{-5}{2}x - 3 \]

A. Create a linear function \( g(x) \) such that \( f(x) = g(x) \) has exactly one solution.

B. What is the exact solution to \( f(x) = g(x) \)?

A. \( g(x) = x - 3 \)

B. \( x = 0 \)

(1 Point) A: Student entered \( g(x) = x - 3 \) or any linear function with a slope other than \(-\frac{5}{2}\); B: Student entered \( x = 0 \) or any correct solution dependent on the function in part A.
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<td>G.G-MD.A</td>
<td>G.G-MD.A.1</td>
<td>2</td>
</tr>
</tbody>
</table>

Two cylinders, X and Y, are shown. Each cylinder has a height of 10 feet.

Which statement about these cylinders is true?

- A. The volumes of the two cylinders are always equal because they have the same height.
- B. The volume of cylinder Y is always greater because the slant height of cylinder Y is greater than the height of cylinder X.
- C. The relationship between the volumes of the two cylinders cannot be determined because the slant height of cylinder Y is not given.
- D. The relationship between the volumes of the two cylinders cannot be determined because the radii of the two cylinders are not given.

(1 Point) Student selected the correct option.
Create the equation of a line that is perpendicular to $2y = 14 + \frac{2}{3}x$ and passes through the point $(-2, 8)$.

$y = -3x + 2$

(1 point) Student entered $y = -3x + 2$ or any equivalent equation.
A function is shown, where $b$ is a real number.

\[ f(x) = x^2 + bx + 144 \]

The minimum value of the function is 80.

Create an equation for an equivalent function in the form \( f(x) = (x - h)^2 + k \).

\[ f(x) = (x + 8)^2 + 80 \]

(1 point) Student entered \( f(x) = (x + 8)^2 + 80 \) or \( f(x) = (x - 8)^2 + 80 \) or any equivalent function in the correct form.
The function \( f(t) = -16t^2 + 20t + 4 \) gives the height of a ball, in feet, \( t \) seconds after it is tossed.

What is the average rate of change, in feet per second, over the interval \([0.75, 1.25]\)?

\( -12 \)

(1 point) Student entered -12 or any equivalent value.
A triangle is shown on the coordinate grid.

Use the Connect Line tool to draw the triangle after a transformation following the rule $(x, y) \to (x - 4, y + 3)$.

(1 point) Student created the correct triangle.
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<td>26</td>
<td>G.G-SRT.C</td>
<td>G.G-SRT.C.6</td>
<td>3</td>
</tr>
</tbody>
</table>

Jeremy is building a garage, as shown. He wants the roof height to be between 3.5 and 5 feet. He must decide the angle measure to use for the pitch, or slant, of the roof when the slant height is $d$ feet.

Which inequality can Jeremy use to ensure that his roof will be within the necessary height range?

- **A** $\frac{3.5}{30} \leq \tan(x) \leq \frac{5}{30}$
- **B** $\frac{3.5}{15} \leq \tan(x) \leq \frac{5}{15}$
- **C** $\frac{3.5}{15} \leq \sin(x) \leq \frac{5}{15}$
- **D** $\frac{3.5}{30} \leq \sin(x) \leq \frac{5}{30}$

**1 point** Student selected the correct option.
Let \( g \) and \( h \) be integers that satisfy the conditions shown.

- \( 1 < g < h < 10 \)
- \( \sqrt{g} + \sqrt{h} \) is irrational.
- \( \sqrt{g} \cdot \sqrt{h} \) is rational.

What are the values of \( g \) and \( h \)?

\[
\begin{align*}
    g &= 2 \\
    h &= 8
\end{align*}
\]

(1 point) Student entered 2 or any equivalent value for \( g \) and 8 or any equivalent value for \( h \).
Mikayla is using the following information to prove that \( \angle TUS \) and \( \angle PUQ \) are complementary angles in the diagram shown.

Given: The ray \( US \) bisects \( \angle TUR \) and the ray \( UQ \) bisects \( \angle PUR \).

Part of her proof is shown.

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</tr>
</thead>
<tbody>
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<td>1</td>
<td>G.G-CO.C</td>
<td>G.G-CO.C.9</td>
<td>3</td>
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</table>

<table>
<thead>
<tr>
<th>Statements</th>
<th>Reasons</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. ( \angle TUR ) and ( \angle PUR ) are supplementary angles.</td>
<td>1. ( TUP ) is a line.</td>
</tr>
<tr>
<td>2. ( m \angle TUR + m \angle PUR = 180^\circ )</td>
<td>2. Definition of supplementary angles</td>
</tr>
<tr>
<td>3. ( m \angle TUR = 2 \cdot m \angle TUS ) ( m \angle PUR = 2 \cdot m \angle PUQ )</td>
<td>3. Property of angle bisectors</td>
</tr>
<tr>
<td>4.</td>
<td>4. Substitution</td>
</tr>
<tr>
<td>5.</td>
<td>5. Division property of equality</td>
</tr>
<tr>
<td>6. ( \angle TUS ) and ( \angle PUQ ) are complementary angles.</td>
<td>6. Definition of complementary angles</td>
</tr>
</tbody>
</table>

Which statements could be used to complete Mikayla’s proof?

\( 4. \) 2 \( m \angle TUS = 2 \cdot m \angle PUQ \)
\( 5. \) \( m \angle TUS = m \angle PUQ \)

\( 6. \) 2 \( m \angle TUS = 2 \cdot m \angle PUQ \)
\( 5. \) \( m \angle TUS + m \angle PUQ = 90^\circ \)

\( 7. \) 2 \( m \angle TUS + 2 \cdot m \angle PUQ = 180^\circ \)
\( 5. \) \( m \angle TUS + m \angle PUQ = 90^\circ \)

(1 point) Student selected the correct option.
A square is rotated about its center.
Select all of the angles of rotation that will map the square onto itself.

- 45 degrees
- 60 degrees
- 90 degrees
- 120 degrees
- 180 degrees
- 270 degrees

(1 point) Student selected the three correct angles of rotation.
Triangle $ABC$ is dilated with a scale factor of $k$ and a center of dilation at the origin to obtain triangle $A'B'C'$.

What is the scale factor?

$$k = \boxed{2.5}$$

(1 point) Student entered 2.5 or equivalent value.
In 2015, Macon County had a population of 53,792. The population increases by 2.5% annually.

Which function can be used to model the population \( t \) years after 2015?

- \( f(t) = 1.025t + 53,792 \)
- \( f(t) = 1.25t + 53,792 \)
- \( f(t) = 53,792(1.025)^t \)
- \( f(t) = 53,792(1.25)^t \)

(1 point) Student selected the correct option.
Lainie wants to calculate the height of a sculpture. She places a mirror on the ground so that when she looks into the mirror she sees the top of the sculpture, as shown.

What is the height, in feet, of the sculpture?

20

(1 Point) Student entered 20 or any equivalent value.
The function \( h(p) \) represents the cost for a company to manufacture \( p \) posters. What is the domain of the function?

- \( A \) all integers
- \( B \) all real numbers
- \( C \) all non-negative integers
- \( D \) all positive rational numbers

(1 Point) Student selected the correct option.
A survey of 525 people was conducted to determine whether they have brothers and sisters.

- The results showed that 24% of the people surveyed do not have a sister and 68% of the people surveyed have a brother.
- The results also showed that 93 of the people surveyed do not have a sister and do not have a brother.

Complete the two-way frequency table to show the results of the survey.

<table>
<thead>
<tr>
<th></th>
<th>Have a Brother</th>
<th>Do Not Have a Brother</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have a Sister</td>
<td>324</td>
<td>75</td>
<td>399</td>
</tr>
<tr>
<td>Do Not Have a Sister</td>
<td>33</td>
<td>93</td>
<td>126</td>
</tr>
<tr>
<td>Total</td>
<td>357</td>
<td>168</td>
<td>525</td>
</tr>
</tbody>
</table>

(1 point) Student completed the table with all the correct values.
(1 point) Student entered \( \frac{1}{3} m \left( \frac{m}{4} \right)^2 \pi - \frac{1}{3} \left( \frac{m}{12} \right)^2 \left( \frac{m}{3} \right) \pi \) or any equivalent expression.
A quadratic equation is shown.

\[0 = x^2 - 3x - 4\]

Which value is a solution to this equation?

- A 1
- B 2
- C 3
- D 4

(1 point) Student selected the correct option.
Triangle $ABC$ is shown.

Which statement must be true?

- $\cos(A) = \sin(A)$
- $\cos(A) = \sin(B)$
- $\cos(A) = \cos(B)$
- $\sin(A) = \sin(B)$

(1 point) Student selected the correct option.
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<td>G.G-MG.A</td>
<td>G.G-MG.A.3</td>
<td>3</td>
</tr>
</tbody>
</table>

Jackson has a table with a square top and he wants to buy a circular piece of lace that will cover the entire top of the table. The top of the table has side lengths of 12 inches, as shown.

What is the area, in square inches, of the smallest circular piece of lace Jackson could buy? Round your answer to the nearest tenth.

226.2

(1 point) Student entered 226.2; any value between 226 and 226.3, inclusive.
Juan collects data on the number of hot dogs sold at a hot dog stand each hour one day and the number of cars that drive by the stand in that hour. His data are shown in the table.

<table>
<thead>
<tr>
<th>Number of Hot Dogs Sold</th>
<th>Number of Cars</th>
</tr>
</thead>
<tbody>
<tr>
<td>30</td>
<td>73</td>
</tr>
<tr>
<td>9</td>
<td>32</td>
</tr>
<tr>
<td>21</td>
<td>56</td>
</tr>
<tr>
<td>0</td>
<td>11</td>
</tr>
<tr>
<td>24</td>
<td>62</td>
</tr>
</tbody>
</table>

Based on his data, which conclusion can Juan make?

- An increase in cars is associated with a decrease in hot dog sales.
- An increase in cars is associated with an increase in hot dog sales.
- An increase in cars causes a decrease in hot dog sales.
- An increase in cars causes an increase in hot dog sales.

(1 point) Student selected the correct option.
(1 point) Student selected the two correct values.
(1 Point) Student entered $2w^2 + 7w = 250$ or any equivalent equation.
Two boats are traveling toward a lighthouse that is 200 feet (ft) above sea level at its top. When the two boats and the lighthouse are collinear, the boats are exactly 250 feet apart and the boat closest to the lighthouse has an angle of elevation to the top of the lighthouse of 15°, as shown.

What is the value of $x$, rounded to the nearest hundredth?

11.35

(1 point) Student entered 11.35; any value between 11.349 and 11.355, inclusive.
A 9-foot (ft) ladder and a 4-foot ladder are leaning against a house. The two ladders create angles of the same measure with the ground. The 4-foot ladder has a height of 3.8 feet against the house.

What is the height, in feet, of the 9-foot ladder against the house?

8.55

(1 Point) Student entered 8.55 or any equivalent value.
Yesenia records the ages of 9 friends. A box plot of her data set is shown.
Click above the number line to create a dot plot that could represent Yesenia’s data set.

(1 point) Student created a correct dot plot or any dot plot that satisfies the criteria.
Julian graphs the function $f(x) = 2^x + 5$. He then moves the graph down 8 units to create function $g(x)$.

Create an equation that represents $g(x)$.

$$g(x) = 2^x - 3$$

(1 point) Student entered the correct function $g(x) = 2^x - 3$ or any equivalent function.
An expression is shown.

$$64x^2 - 196$$

Michael rewrites this expression in a different form.

Which form could Michael have used, where $a$ and $b$ are integers?

- $$(ax - b)^2$$
- $$(ax + b)^2$$
- $$(ax + b)(ax - b)$$
- $$(ax + b)(bx - a)$$

(1 point) Student selected the correct option.
Circle $E$ is shown, where $\angle E$ measures 0.44 radians and $EF = 7$ inches.

What is the area of the shaded region, to the nearest hundredth of a square inch?

10.78

(1 point) Student entered 10.78; any value between 10.78 and 10.79, inclusive.
Gary analyzes data on average outdoor temperature and the cost of air conditioning his home. He fits the data to a linear model and finds the correlation coefficient to be 0.96.

Select a word or phrase for each blank box to correctly complete the statement.

Based on Gary’s analysis, there is a [strong] association between the increase in the outdoor temperature and the [increase] in household air conditioning costs.

(1 point) Student selected “strong” from the first dropdown, and “increase” from the second dropdown.
Both \( f(x) \) and \( g(x) \) are polynomial functions.
Determine whether each expression must be a polynomial.

<table>
<thead>
<tr>
<th>Expression</th>
<th>Must Be a Polynomial</th>
<th>May Not Be a Polynomial</th>
</tr>
</thead>
<tbody>
<tr>
<td>( f(x) + g(x) )</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>( g(x)[f(x) - g(x)] )</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>( \frac{f(x) - g(x)}{f(x)} )</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

(1 Point) Student selected the correct options.
(1 point) Student selected the correct cross-sectional shape for each object.
The figure shows a small, unshaded square inside a larger square.

The expression \( w^2 - (w - y)^2 \) represents the area of the shaded region in the figure.

Match each part of the expression to its description.

<table>
<thead>
<tr>
<th></th>
<th>Area of the small square</th>
<th>Area of the large square</th>
<th>Side length of the small square</th>
<th>Side length of the large square</th>
</tr>
</thead>
<tbody>
<tr>
<td>( w )</td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>( w^2 )</td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>( (w - y) )</td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>( (w - y)^2 )</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(1 point) Student selected the correct description for each part of the expression.
(1 point) Student selected all of the correct regions of the Venn diagram.
Sample Test Scoring Guide-Grade 10 Math
Spring 2020

<table>
<thead>
<tr>
<th>Item Number</th>
<th>Cluster</th>
<th>Content Standard</th>
<th>DOK</th>
</tr>
</thead>
<tbody>
<tr>
<td>26</td>
<td>G.G-CO.C</td>
<td>G.G-CO.C.10</td>
<td>3</td>
</tr>
</tbody>
</table>

Isosceles \( \triangle EFG \) is shown, where \( \overline{FH} \) is an angle bisector.

Drag statements and reasons to the table to complete the proof that the base angles of the isosceles triangle are congruent.

(1 point) Student completed a correct proof.

Exemplar:

<table>
<thead>
<tr>
<th>Statements</th>
<th>Reasons</th>
</tr>
</thead>
<tbody>
<tr>
<td>( \overline{FH} \cong \overline{FH} )</td>
<td>Reflexive property</td>
</tr>
<tr>
<td>( \angle GFH \cong \angle EFH )</td>
<td>( \angle FHG \cong \angle FHE )</td>
</tr>
<tr>
<td>Transitive property</td>
<td>SAS theorem</td>
</tr>
<tr>
<td>Substitution</td>
<td>SSS theorem</td>
</tr>
<tr>
<td>( \triangle GFH \cong \triangle EFH )</td>
<td>AA theorem</td>
</tr>
<tr>
<td>( \angle GFH \cong \angle EFH )</td>
<td></td>
</tr>
</tbody>
</table>