Let's Practice!

SMARTER Math Review: Constructed Response Question

7TH GRADE

Common Core State Standard 7.EE.1—Expressions and Equations

Apply properties of operations as strategies to add, subtract, factor and expand linear expressions with rational coefficients.

In the following equation, a and b are both integers.

$$a(3x - 8) = b - 18x$$

What is the value of a? ☐

What is the value of b? ☐

SBAC Sample Item ID: MAT.07.CR.1.000EE.C.296
DOK Level: 2

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Let's Practice!

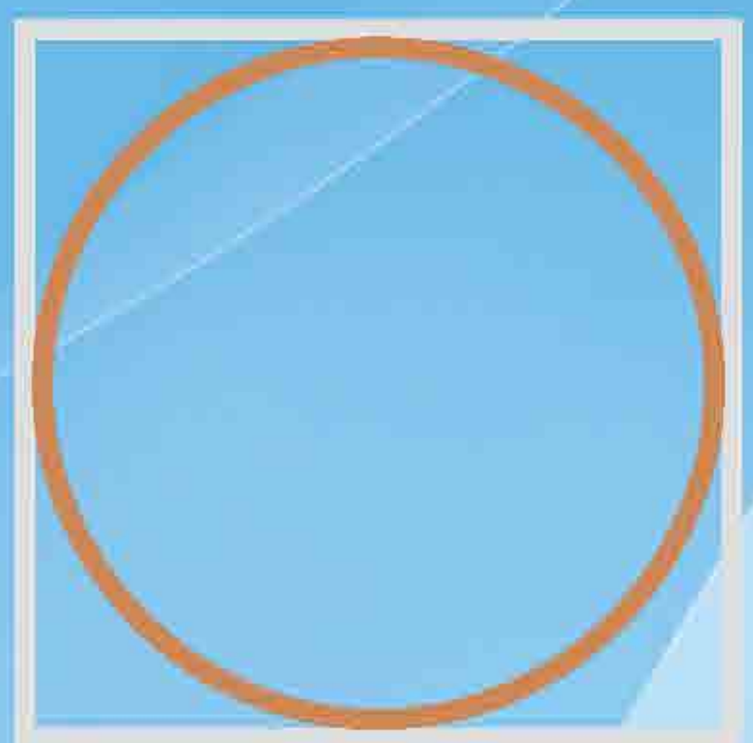
SMARTER Math Review: Extended Response Question

7TH GRADE

Common Core State Standard 7.G.4—Geometry

Know the formulas for the area and circumference of a circle and use them to solve problems; give an informal derivation of the relationship between the circumference and area of a circle.

An artist used silver wire to make a square that has a perimeter of 40 inches. She then used copper wire to make the largest circle that could fit in the square, as shown.



How many more inches of silver wire did the artist use compared to copper wire? (Use $\pi = 3.14$) Show all work necessary to justify your response.

SBAC Sample Item ID: MAT.07.ER.2.0000G.A.295
DOK Level: 2

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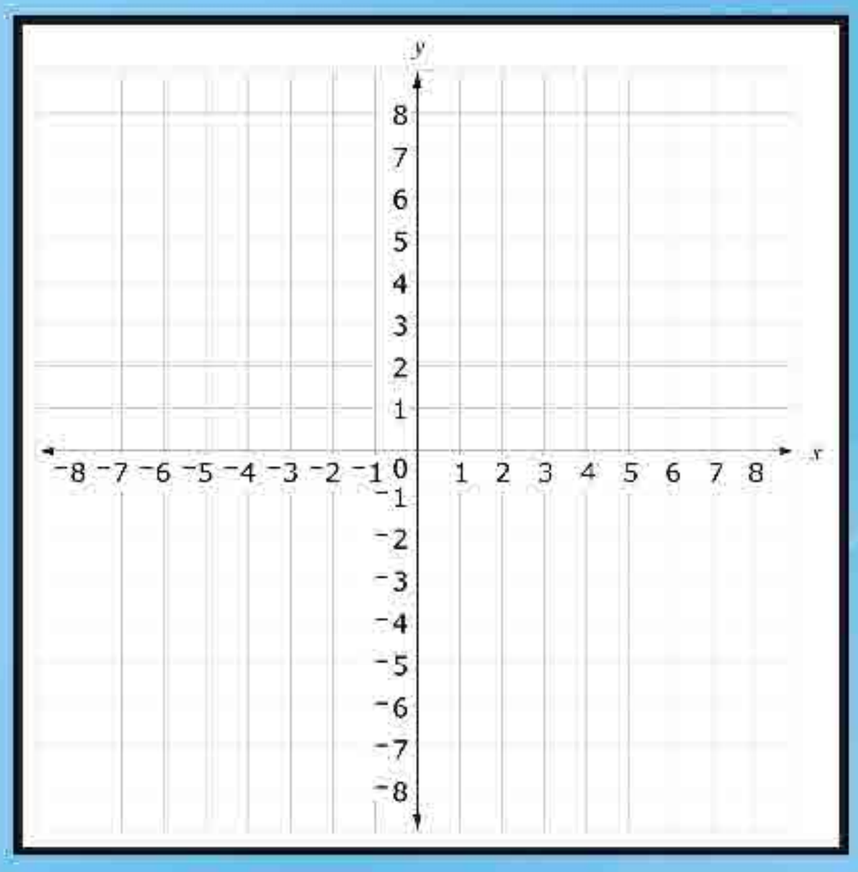
Let's Practice!

SMARTER Math Review: Technology Enhanced Question

7TH GRADE

Common Core State Standard 7.RP.2.—Ratios and Proportional Relationships
Recognize and represent proportional relationships between quantities.

The value of y is proportional to the value of x. The constant of proportionality for this relationship is 2. On the grid, graph this proportional relationship.



[Create two points by clicking on the intersections of the gridlines. When you create the second point, a line will automatically be drawn through the two points. If you make a mistake, use the Clear button to begin again.]

SBAC Sample Item ID: MAT.07.TE.1.000RP.A.287
DOK Level: 2

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An excerpt from a

SMARTER Math Review: Performance Task Question

7TH GRADE

Scale drawings and maps of cities can be very helpful for determining distances between important landmarks. With the right map and a little planning, vacations to places like Washington, D.C., can be both fun and informative.

Part A: Using the ruler and graph paper provided by your teacher, create a scale drawing of a city center. Use the information below to create your drawing.

- The scale for your drawing is 1 inch = 2 miles.
- Use dots to represent the buildings on your map.
- Place City Hall near the top left of the paper.
- Draw two streets moving away from City Hall. The two streets should be at 90° angles.
- Along one street, place the Post Office two miles away from City Hall and the Police Station three miles away from City Hall.
- Along the other street, place the Fire Station $1\frac{1}{2}$ miles from City Hall, the Elementary School $2\frac{1}{2}$ miles from City Hall, and the Middle School 3 miles from City Hall.
- Draw streets connecting the Police Station to the Fire Station and Middle School.
- Draw a street connecting the Post Office to the Elementary School.

See your math teacher for more about this problem…

SBAC Sample Item ID: MAT.07.PT.4.CCNTR.A.272
DOK Level: 3 (for entire task)

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Let's Practice!

SMARTER Math Review: Selected Response Question

7TH GRADE

Common Core State Standard 7.NS.1—Number System

Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram.

Identify the number(s) that makes each statement true. You may select more than one number for each statement.

1a. $-4.8+\square$ = a positive number ◯ -5.2 ◯ 4.9

1b. $\square - 1\frac{1}{2}$ = a negative number ◯ $\frac{3}{2}$ ◯ $-\frac{7}{3}$

1c. $\square + 5$ = zero ◯ -5 ◯ 5

1d. $-2.15-\square$ = a negative number ◯ -1.75 ◯ 1.34

SBAC Sample Item ID: MAT.07.SR.1.000NS.B.163
DOK Level: 2

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