Let's Practice!

SMARTER Math Review: Constructed Response Question

5TH GRADE

Common Core State Standard 5.NF.2 — Number and Operations/Fractions

Solve word problems involving addition and subtraction of fractions referring to the same whole, including cases of unlike denominators, e.g., by using visual fraction models or equations to represent the problem. Use benchmark fractions and number sense of fractions to estimate mentally and assess the reasonableness of answers.

The table below shows the length of ribbon, in yards, needed to make different art projects.

Project	Length of Ribbon (In yards)
Flower	$1\frac{3}{4}$
Bulletin board	$3\frac{1}{3}$
Costume	2
Mask	$\frac{1}{3}$
Puppet	$2\frac{1}{2}$
Picture frame	$\frac{1}{4}$

Susan has 4 yards of ribbon and wants to make as many different art projects as possible. Which art projects can Susan make that will use exactly 4 yards of ribbon altogether?

SBAC Sample Item ID: MAT.05.CR.1.000NF.E.558
DOK Level: 3

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An excerpt from a

SMARTER Math Review: Performance Task Question

5TH GRADE

Geocaching

Geocaching is an indoor or outdoor treasure-seeking game. You can use different tools to find "treasure." A treasure seeker attempts to find the hidden treasure, or "geocache," by calculating the location using clues.

In this activity, a geocache is the hidden treasure that you must find using a set of clues. These clues will help you to determine the location of the geocache.

To complete this activity, you will:

- decipher the clues.
- create a map on a grid of where the geocache can be found.
- use the map to locate the geocache.
- locate new geocaches.
- create clues for a new geocaching task.

Session 1
Deciphering the Clues

To begin geocaching, you will need to decipher clues to make your map. The map you will use for geocaching will be a coordinate grid. You will start at the origin and apply the clues to determine the location of the first treasure. You will then apply the same clues, starting at the previous location, to determine the location of the next treasure.

See your math teacher for more information about this problem.

SBAC Sample Item ID: MAT.05.PT.4.GEOCA.F.429
DOK Level: 4 (for entire task)

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Let's Practice!

SMARTER Math Review: Extended Response Question

5TH GRADE

Common Core State Standard 5.OA.3—Operations and Algebraic Thinking

Generate two numerical patterns using two given rules. Identify apparent relationships between corresponding terms. Form ordered pairs consisting of corresponding terms from the two patterns, and graph the ordered pairs on a coordinate plane.

Branden's teacher said that beginning at age 2, children grow about 6 centimeters per year. Branden is 125 centimeters tall and is 9 years old.

In the table below, Branden used his current age and height to calculate his possible height for each of the previous 3 years.

Branden's Age and Height

Branden's Age (years)	Branden's Height (centimeters)
9	125
8	119
7	113
6	107

Branden used the equation $7 \times 6 + \square = 125$ to estimate how tall he was at age 2. Will the equation give him a reasonable estimate of his height at age 2? Explain your answer by relating the information in the table to the given equation.

What is a reasonable height for Branden at age 2?

$\square$ centimeters

SBAC Sample Item ID: MAT.05.ER.3.000OA.A.610
DOK Level: 3

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Let's Practice!

SMARTER Math Review: Selected Response Question

5TH GRADE

Common Core State Standard 5.NF.1 — Number and Operations/Fractions

Add and subtract fractions with unlike denominators (including mixed numbers) by replacing given fractions with equivalent fractions in such a way as to produce an equivalent sum or difference of fractions with like denominators.

Common Core State Standard 5.NF.2 — Number and Operations/Fractions

Solve word problems involving addition and subtraction of fractions referring to the same whole, including cases of unlike denominators, e.g., by using visual fraction models or equations to represent the problem. Use benchmark fractions and number sense of fractions to estimate mentally and assess the reasonableness of answers.

In the morning John hiked $4\frac{8}{10}$ miles. In the afternoon he hiked $2\frac{1}{2}$ miles. How many miles did John hike altogether?

For numbers 1a – 1d, select Yes or No to indicate whether each equation can be used to solve the word problem shown above.

1a. $4\frac{8}{10} + 2\frac{5}{10} = \square$ ○ **Yes** ○ **No**

1b. $4\frac{8}{10} + 2\frac{1}{10} = \square$ ○ **Yes** ○ **No**

1c. $\frac{40}{10} + \frac{20}{10} = \square$ ○ **Yes** ○ **No**

1d. $\frac{48}{10} + \frac{25}{10} = \square$ ○ **Yes** ○ **No**

SBAC Sample Item ID: MAT.05.SR.1.000NF.E.008
DOK Level: 1

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Let's Practice!

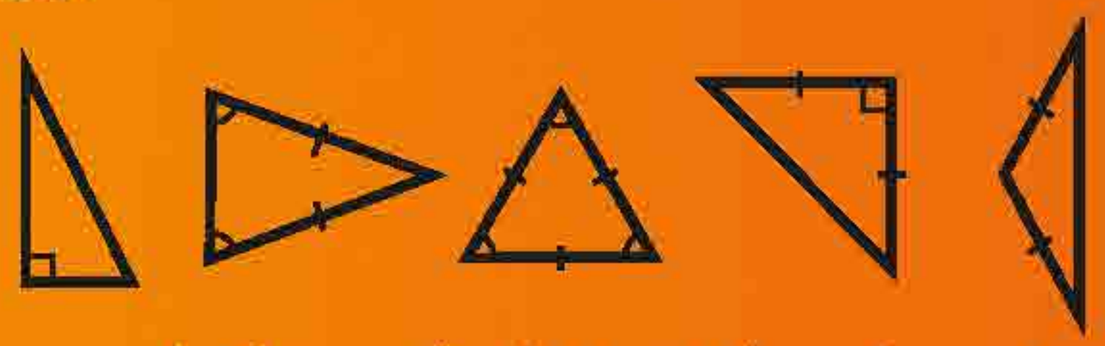
SMARTER Math Review: Technology Enhanced Question

5TH GRADE

Common Core State Standard 5.G.3 — Geometry

Understand that attributes belonging to a category of two-dimensional figures also belong to all subcategories of that category.

Classify the triangles as scalene, right and/or acute. If a triangle fits more than one classification, place it in all the boxes that apply. If none of these classifications apply, leave it outside the boxes.



Click on a shape and then click inside a box to place a shape in the box.

Scalene	Right	Acute

SBAC Sample Item ID: MAT.05.TE.1.0000G.K.260
DOK Level: 2

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