

Let's Practice!

SMARTER Math Review: Constructed Response Question

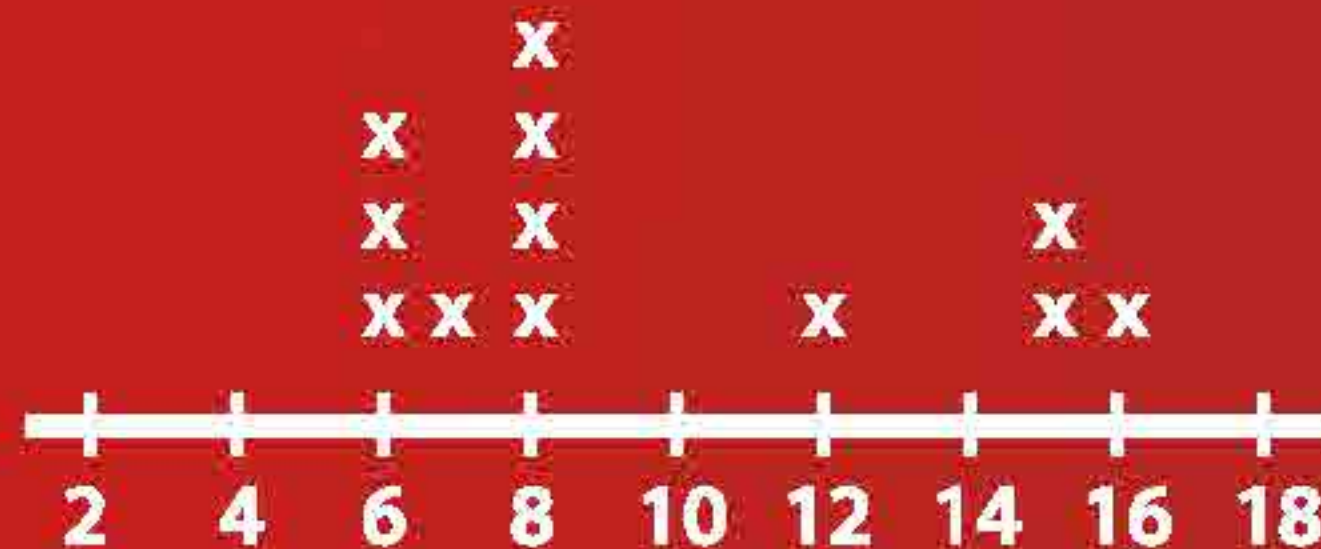
4TH GRADE

Common Core State Standard 4.NF.3—Number and Operations/Fractions

Understand a fraction a/b with $a > 1$ as a sum of fractions $1/b$.

A zookeeper made this line plot to show the ages of all the baboons at a zoo.

Baboon Ages (in years)



Part A

What fraction of the baboons at this zoo are eight years old?

$$\frac{\boxed{}}{\boxed{}}$$

Part B

What fraction of all the baboons at this zoo are not 8 years old?

$$\frac{\boxed{}}{\boxed{}}$$

SBAC Sample Item ID: MAT.04.GR.2.000NF.A.209

DOK Level: 3

Produced by the Southern Nevada Regional Professional Development Program (SNRPDP).
www.rpd.net

Adapted from the *Smarter Balanced Assessments: Mathematics Item/Task Specifications*,
© Copyright April 2012. Smarter Balanced Assessment Consortium. All rights reserved.



An excerpt
from a

SMARTER Math Review: Performance Task Question

4TH GRADE

Robot Maker – Task 1

You work for a company that makes robots. Your boss has asked you to design a new robot. The robot will contain a head, a body, 2 arms and 2 legs.

The first step is to draw what the front of your robot will look like. Use the practice grid paper provided to draw the front of your robot. Make sure to follow **all** of the guidelines below.

1. The front of the body must be a rectangle with an area that is greater than 64 square centimeters but less than 140 square centimeters.
2. The front of the head must be a rectangle with a perimeter of 18 centimeters.
3. The front of each leg must be a quadrilateral that is **not** a rectangle.
4. The front of each arm must be a rectangle divided into equal parts with $\frac{3}{4}$ of the parts shaded.
5. Each eye must be shaped like a hexagon divided into equal parts with $\frac{1}{3}$ of the parts shaded.

The drawing must contain labels with any numbers and words that help your boss understand how you met each of the five guidelines.

When you are sure your drawing is complete, copy your drawing to the answer sheet provided.

See your math teacher for more information about this problem.

SBAC Sample Item ID: MAT.04.PT.4.ROBMK.A.043

DOK Level: 3 (for entire task)

Produced by the Southern Nevada Regional Professional Development Program (SNRPDP).
www.rpd.net

Adapted from the *Smarter Balanced Assessments: Mathematics Item/Task Specifications*,
© Copyright April 2012. Smarter Balanced Assessment Consortium. All rights reserved.



Let's Practice!

SMARTER Math Review: Extended Response Question

4TH GRADE

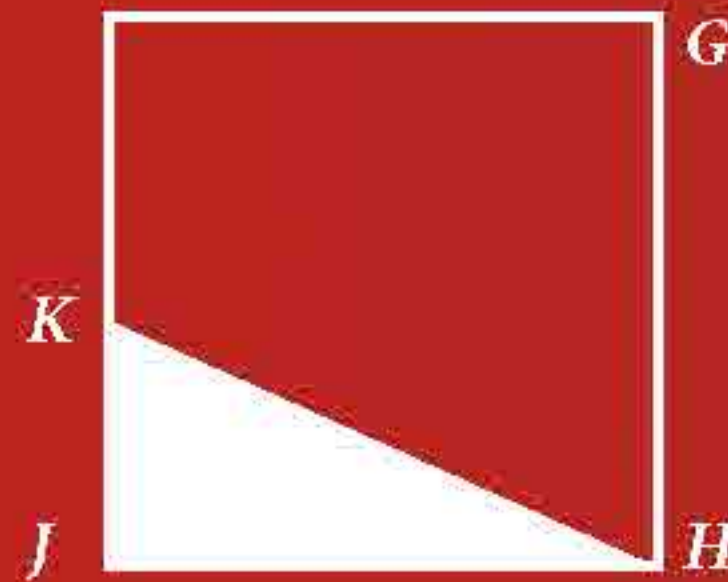
Common Core State Standard 4.MD.6 – Measurement and Data

Measure angles in whole-number degrees using a protractor. Sketch angles of specified measure.

Common Core State Standard 4.MD.7 – Measurement and Data

Recognize angle measure as additive. When an angle is decomposed into non-overlapping parts, the angle measure of the whole is the sum of the angle measures of the parts. Solve addition and subtraction problems to find unknown angles on a diagram in real world and mathematical problems, e.g., by using an equation with a symbol for the unknown angle measure.

Look at the figure.



Use the online protractor to measure angle KHJ in degrees.

Click in the box and then type the measure of angle KHJ .

degrees

The measure of angle GHJ is 90 degrees. Use the measure of angle GHJ to find the measure of angle GHK , in degrees.

degrees

In the space below, use pictures, numbers, and /or words to show how you found the measure of angle GHK .

SBAC Sample Item ID: MAT.04.ER.2.000MD.A.049

DOK Level: 2

Produced by the Southern Nevada Regional Professional Development Program (SNRPDP).
www.rpd.net

Adapted from the *Smarter Balanced Assessments: Mathematics Item/Task Specifications*,
© Copyright April 2012. Smarter Balanced Assessment Consortium. All rights reserved.



Let's
Practice!

SMARTER Math Review: Selected Response Question

4TH GRADE

Common Core State Standard 4.OA.2 – Operations and Algebraic Thinking

Multiply or divide to solve word problems involving multiplicative comparison, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem, distinguishing multiplicative comparison from additive comparison.

Sarah is 12 years old.

- George is g years old.
- Sarah is 3 times as old as George.

For numbers 1a – 1c, choose Yes or No to indicate whether each statement is true.

- 1a. George's age, in years, can be represented by the expression $12 \div 3$. Yes No
- 1b. George is 15 years old. Yes No
- 1c. George's age, in years, can be found by solving the equation $12 = 3 \times g$. Yes No

SBAC Sample Item ID: MAT.04.SR.1.000OA.A.027

DOK Level: 2

Produced by the Southern Nevada Regional Professional Development Program (SNRPDP).
www.rpd.net

Adapted from the *Smarter Balanced Assessments: Mathematics Item/Task Specifications*,
© Copyright April 2012. Smarter Balanced Assessment Consortium. All rights reserved.



Let's Practice!

SMARTER Math Review: Technology Enhanced Question

4TH GRADE

Common Core State Standard 4.G.2 — Geometry

Classify two-dimensional figures based on the presence or absence of parallel or perpendicular lines, or the presence or absence of angles of a specified size. Recognize right triangles as a category, and identify right triangles.

Sort these four shapes. Use the characteristics labeled in the boxes below. Some shapes may belong in more than one box.



Rectangle



Rhombus



Right Triangle



Square

Click on a shape and then click inside a box to place the shape in the box. Continue as many times as necessary.

Shapes with at Least One Right Angle	Shapes with at Least One Pair of Perpendicular Sides	Shapes with at Least One Pair of Parallel Sides

SBAC Sample Item ID: MAT.04.TE.1.0000G.L.094

DOK Level: 2

Produced by the Southern Nevada Regional Professional Development Program (SNRPDP).
www.rpd.net

Adapted from the *Smarter Balanced Assessments: Mathematics Item/Task Specifications*,
© Copyright April 2012. Smarter Balanced Assessment Consortium. All rights reserved.

