engage^{ny}

engageny

Our Students. Their Moment.

New York State Testing Program
Grade 6 Common Core
Mathematics Test

Released Questions

June 2017

New York State administered the Mathematics Common Core Tests in May 2017 and is now making approximately 75% of the questions from these tests available for review and use.

New York State Testing Program
Grades 3-8 Mathematics

Released Questions from 2017 Exams

Background

In 2013, New York State began administering tests designed to assess student performance in accordance with the instructional shifts and rigor demanded by the new New York State P-12 Learning Standards in Mathematics. To help in this transition to new assessments, the New York State Education Department (SED) has been releasing an increasing number of test questions from the tests that were administered to students across the State in the spring. This year, SED is again releasing large portions of the 2017 NYS Grades 3-8 Common Core English Language Arts and Mathematics test materials for review, discussion, and use.

For 2017, included in these released materials are at least 75 percent of the test questions that appeared on the 2017 tests (including all constructed-response questions) that counted toward students' scores. Additionally, SED is also providing a map that details what each released question measures and the correct response to each question. These released materials will help students, families, educators, and the public better understand the tests and the New York State Education Department's expectations for students.

Understanding Math Questions

Multiple-Choice Questions

Multiple-choice questions are designed to assess the New York State P-12 Learning Standards for Mathematics. Mathematics multiple-choice questions will be used mainly to assess standard algorithms and conceptual standards. Multiple-choice questions incorporate both the grade-level standards and the "Standards for Mathematical Practices." Many questions are framed within the context of real-world applications or require students to complete multiple steps. Likewise, many of these questions are linked to more than one standard, drawing on the simultaneous application of multiple skills and concepts.

Short-Response Questions

Short-response questions require students to complete tasks and show their work. Like multiple-choice questions, short-response questions will often require multiple steps, the application of multiple mathematics skills, and real-world applications. Many of the short-response questions will cover conceptual and application of the standards.

Extended-Response Questions

Extended-response questions ask students to show their work in completing two or more tasks or a more extensive problem. Extended-response questions allow students to show their understanding of mathematical procedures, conceptual understanding, and application. Extended-response questions may also assess student reasoning and the ability to critique the arguments of others.

The scoring rubric for short and extended constructed-response questions can be found in the grade-level Educator Guides at https://www.engageny.org/resource/test-guides-english-language-arts-and-mathematics.

New York State P-12 Learning Standards Alignment

The alignment(s) to the New York State P-12 Learning Standards for Mathematics is/are intended to identify the primary analytic skills necessary to successfully answer each question. However, some questions measure proficiencies described in multiple standards, including a balanced combination of procedure and conceptual understanding. For example, two-point and three-point constructed-response questions require students to show an understanding of mathematical procedures, concepts, and applications.

These Released Questions Do Not Comprise a "Mini Test"

To ensure future valid and reliable tests, some content must remain secure for possible use on future exams. As such, this document is *not* intended to be representative of the entire test, to show how operational tests look, or to provide information about how teachers should administer the test; rather, its purpose is to provide an overview of how the test reflects the demands of the New York State P-12 Learning Standards.

The released questions do not represent the full spectrum of the standards assessed on the State tests, nor do they represent the full spectrum of how the standards should be taught and assessed in the classroom. It should not be assumed that a particular standard will be measured by an identical question in future assessments. Specific criteria for writing test questions, as well as additional assessment information, are available at http://www.engageny.org/common-core-assessments.

Name:_____

New York State Testing Program

2017 Common Core Mathematics Test Book 1

Grade 6

Released Questions

Grade 6 Mathematics Reference Sheet

CONVERSIONS

1 inch = 2.54 centimeters	1 kilometer = 0.62 mile	1 cup = 8 fluid ounces
1 meter = 39.37 inches	1 pound = 16 ounces	1 pint = 2 cups
1 mile = 5,280 feet	1 pound = 0.454 kilogram	1 quart = 2 pints
1 mile = 1,760 yards	1 kilogram = 2.2 pounds	1 gallon = 4 quarts
1 mile = 1.609 kilometers	1 ton = 2,000 pounds	1 gallon = 3.785 liters
		1 liter = 0.264 gallon
		1 liter = 1,000 cubic centimeters

FORMULAS

Triangle	$A = \dfrac{1}{2}bh$
Right Rectangular Prism	$V = Bh$ or $V = lwh$

Book 1

TIPS FOR TAKING THE TEST

Here are some suggestions to help you do your best:

- Read each question carefully and think about the answer before choosing your response.

- You have been provided with mathematics tools (a ruler and a protractor) and a reference sheet to use during the test. It is up to you to decide when each tool and the reference sheet will be helpful. You should use mathematics tools and the reference sheet whenever you think they will help you to answer the question.

1 A bakery sells 5 apple muffins for every 2 bran muffins sold. Which table shows this ratio?

A

Apple	Bran
5	2
10	12
20	22

C

Apple	Bran
5	2
18	8
20	10

B

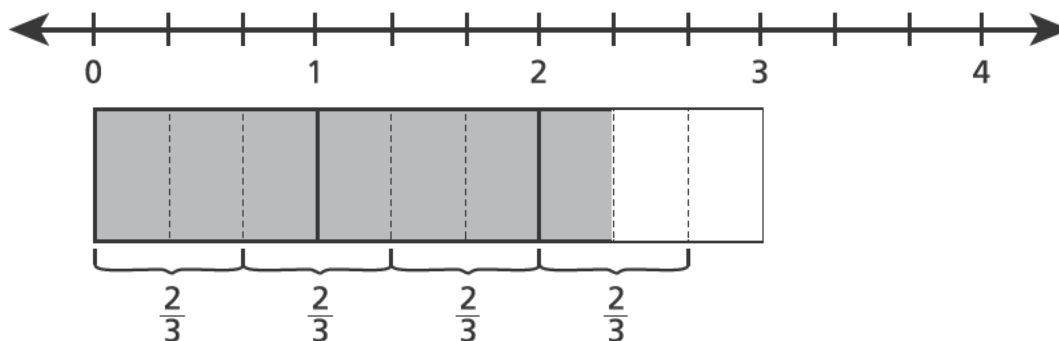| Apple	Bran
10	4
15	6
35	14

D

Apple	Bran
20	4
30	6
40	8

2 In which set do all of the values make the inequality $2x - 1 < 10$ true?

A {10, 15, 20}

B {5, 7, 9}

C {4, 6, 8}

D {2, 3, 4}

GO ON

Book 1

3 The model below represents a division problem.
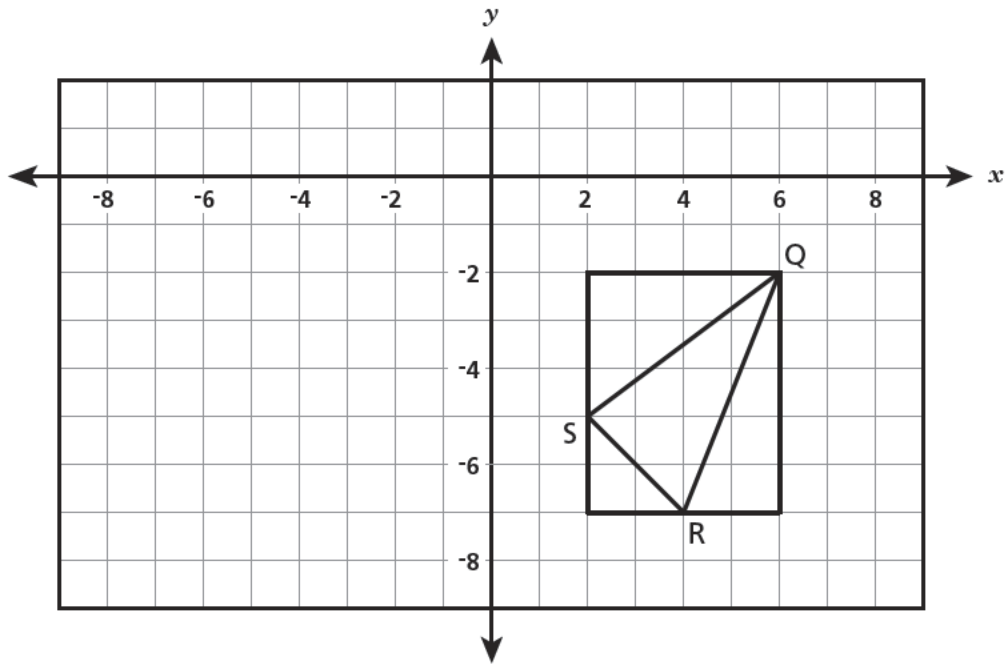

Which equation is represented by the model?

A $2\frac{1}{3} \div \frac{2}{3} = 3\frac{1}{2}$

B $2\frac{1}{3} \div \frac{2}{3} = 3\frac{1}{3}$

C $\frac{7}{1} \div \frac{1}{3} = 2\frac{1}{3}$

D $\frac{2}{3} \div 3\frac{1}{2} = 2\frac{1}{3}$

4 What is the value of the expression below?

$$2[3(4^2 + 1)] - 2^3$$

A 156

B 110

C 94

D 48

9 Triangle QRS, with vertices Q(6, −2), R(4, −7), and S(2, −5), is drawn inside a rectangle, as shown below.
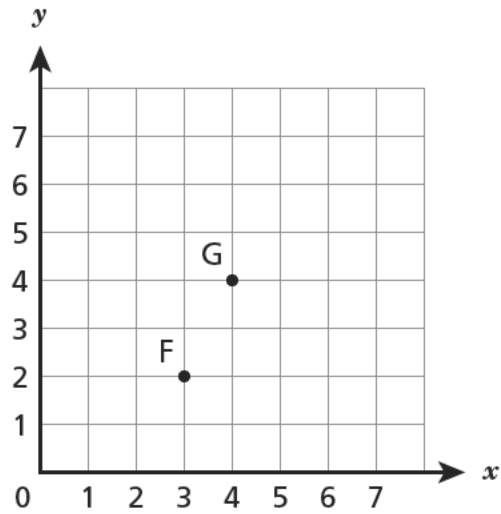

What is the area, in square units, of triangle QRS?

A 7   C 13

B 10   D 18

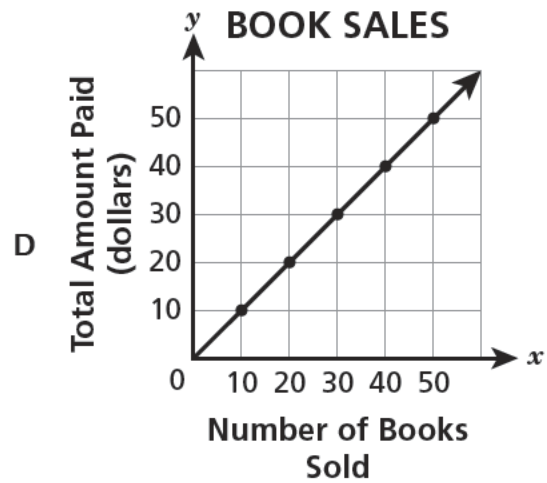**10** Points F and G have been plotted on the coordinate plane below.
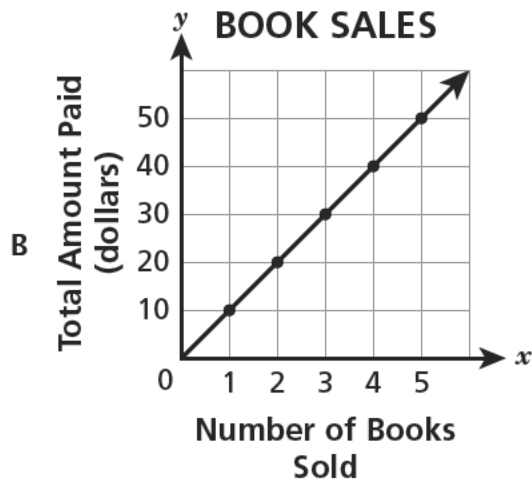

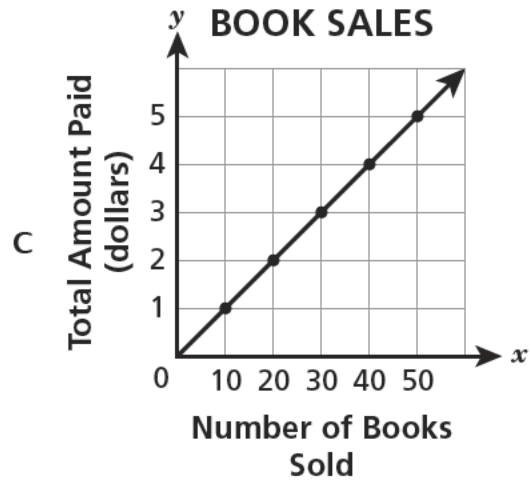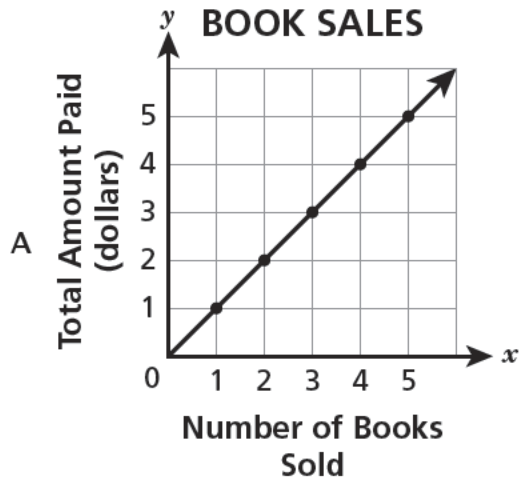
Point G and point H are the same distance from point F. Which coordinates could be the location of point H?

A (1, 2)

B (4, 2)

C (5, 1)

D (2, 5)

13 A bookstore is selling books for $10 each. Which graph shows the relationship between the number of books, *x*, the store sold and the total amount of money, *y*, paid from the book sales?

A

C

B

D

14 The ratio of students to adults on a field trip is 8 to 1. Which table correctly shows this ratio for each grade?

A

Grade	Number of Students	Number of Adults
6	96	88
7	120	112
8	136	128

C

Grade	Number of Students	Number of Adults
6	96	12
7	120	15
8	136	17

B

Grade	Number of Students	Number of Adults
6	96	104
7	120	128
8	136	144

D

| Grade	Number of Students	Number of Adults
6	96	11
7	120	13
8	136	15

15 Which phrase is a description of $2m + 7$?

A 7 more than 2 times m

B 2 more than 7 times m

C 2 times the sum of 7 and m

D 7 times the sum of 2 and m

GO ON

16 George has $23 to spend on art supplies. He wants to buy markers, paper, and glue. If the total cost of the markers and paper is more than $14, which inequality represents the dollar amount, p, George can spend on glue?

A $p < 9$

B $p > 9$

C $p < 37$

D $p > 37$

17 The net of a rectangular prism is shown below. The surface area of each face is labeled.
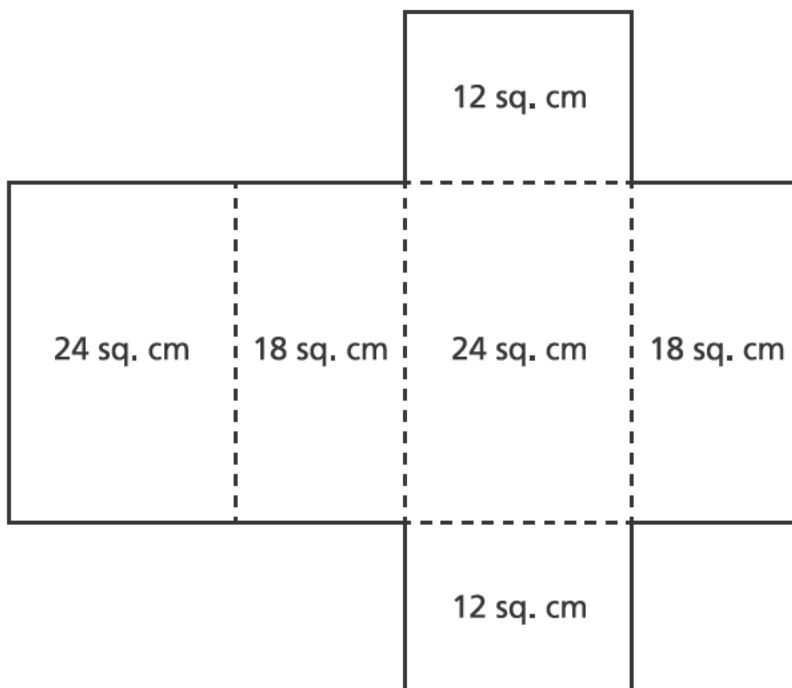
Which values represent the dimensions, in centimeters, of the rectangular prism?

A 12, 18, 24

B 3, 4, 8

C 3, 4, 6

D 2, 9, 12

GO ON

18 A salesperson had $240,000 in sales last year, which is 60% of the sales she had this year. Which equation could be used to determine x, the salesperson's total amount of sales, in dollars, for this year?

A $\dfrac{240,000}{x} = \dfrac{60}{100}$

B $\dfrac{240,000}{100} = \dfrac{x}{60}$

C $\dfrac{60}{240,000} = \dfrac{x}{100}$

D $\dfrac{60}{100} = \dfrac{x}{240,000}$

19 A student formed a pattern in which each term is represented by a sum. The first four terms of the pattern are shown below.

n	Sum
1	1
2	$1 + 3$
3	$1 + 3 + 5$
4	$1 + 3 + 5 + 7$

Which expression can be used to determine the value of the sum in any term, n?

A n^2

B $4n$

C $n + 3$

D 2^n

Book 1

20 Jason will use a $\frac{1}{3}$-gallon pitcher to fill an empty $\frac{3}{4}$-gallon water jug. How much water will he need in order to completely fill the water jug?

A between 1 and 2 full pitchers

B between 2 and 3 full pitchers
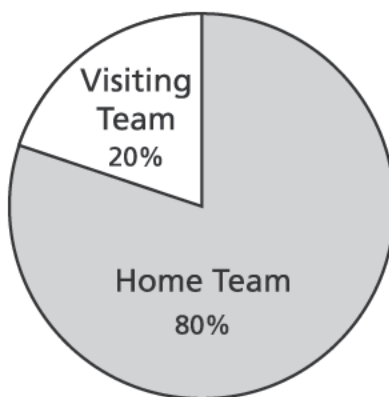
C about $\frac{1}{2}$ of a full pitcher

D about $\frac{1}{4}$ of a full pitcher

23 Which expression is equivalent to $5(6x + 3y)$?

A $11x + 3y$

B $11x + 8y$

C $30x + 3y$

D $30x + 15y$

24 The diagram below shows the percentages of people attending a football game who were supporters of either the home team or the visiting team.

SUPPORTERS AT FOOTBALL GAME

If the total number of people attending the game was 64,000, how many people were supporters of the home team?

A 12,800

B 38,400

C 48,000

D 51,200

25 Which pair of expressions is equivalent for any variable value greater than zero?

A $3(x + 2)$ and $3x + 2$

B $4d + 2e$ and $8d + e$

C $f + f + f + g$ and $3fg$

D $b + b + 3c$ and $2b + 3c$

26 What is the greatest common factor of 42 and 84?

A 7

B 21

C 42

D 84

STOP

Grade 6
2017 Common Core
Mathematics Test
Book 1
May 2–4, 2017

Name: _____

New York State Testing Program

2017 Common Core Mathematics Test Book 2

Grade 6

May 2–4, 2017

Released Questions

Grade 6 Mathematics Reference Sheet

CONVERSIONS

1 inch = 2.54 centimeters	1 kilometer = 0.62 mile	1 cup = 8 fluid ounces
1 meter = 39.37 inches	1 pound = 16 ounces	1 pint = 2 cups
1 mile = 5,280 feet	1 pound = 0.454 kilogram	1 quart = 2 pints
1 mile = 1,760 yards	1 kilogram = 2.2 pounds	1 gallon = 4 quarts
1 mile = 1.609 kilometers	1 ton = 2,000 pounds	1 gallon = 3.785 liters
		1 liter = 0.264 gallon
		1 liter = 1,000 cubic centimeters

FORMULAS

Triangle	$A = \frac{1}{2}bh$
Right Rectangular Prism	$V = Bh$ or $V = lwh$

Book 2

TIPS FOR TAKING THE TEST

Here are some suggestions to help you do your best:

- Read each question carefully and think about the answer before choosing your response.

- You have been provided with mathematics tools (a ruler, a protractor, and a calculator) and a reference sheet to use during the test. It is up to you to decide when each tool and the reference sheet will be helpful. You should use mathematics tools and the reference sheet whenever you think they will help you to answer the question.

27 Kira studied data collected on the school basketball team for one season. She noticed that a player on the team had 13 successful free throws out of a total of 20 attempted free throws. To find the percentage of the total free throws attempted by this player that were successful, Kira set up the equivalent ratios below.

$$\frac{13}{20} = \frac{m}{n}$$

What are the values for m and n in Kira's equation?

A $m = 65$
$\quad n = 1$

C $m = 93$
$\quad n = 100$

B $m = 100$
$\quad n = 65$

D $m = 65$
$\quad n = 100$

28 What is the least common multiple of 4 and 10?

A 14

B 20

C 40

D 60

29 The surface area, *S*, of a right rectangular prism with length *l*, width *w*, and height *h* can be found using the formula below.

$$S = 2(lw + wh + hl)$$

What is the surface area, in square inches, of a prism with a length of 12 inches, a width of 9 inches, and a height of 2 inches?

A 300

B 258

C 150

D 92

30 Which point on the number line below represents the number opposite the number $-5\frac{1}{2}$?
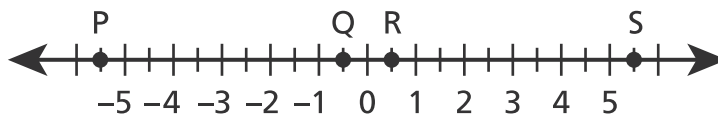
A point P

B point Q

C point R

D point S

34 In 2010, Kim-Ly earned $17.50 for 2 hours of work. Which table shows the relationship between the number of hours worked and Kim-Ly's total earnings, if her rate per hour is constant?

A

Number of Hours	Total Earnings
1	$17.50
2	$35.00
3	$52.50
4	$70.00

C

Number of Hours	Total Earnings
1	$16.50
2	$17.50
3	$18.50
4	$19.50

B

Number of Hours	Total Earnings
1	$17.50
2	$17.50
3	$17.50
4	$17.50

D

Number of Hours	Total Earnings
1	$8.75
2	$17.50
3	$26.25
4	$35.00

35 Susan reads a book at a rate of 1 page every 3 minutes. If her reading rate remains the same, which method could be used to determine the number of minutes for her to read 18 pages?

A add 18 and 3

B divide 18 by 3

C multiply 3 by 18

D subtract 3 from 18

GO ON

36 A triangle has vertices on a coordinate grid at points J(−1, 5), K(4, 5), and L(4, −2). What is the length, in units, of $\overline{KL}$?

    A 3

    B 7

    C 8

    D 11

37 Rosa has a goal of running a total of 100 miles this month. Each day that she ran, she ran 5 miles. Which expression could Rosa use to determine how many miles she has left to run after running for *d* days?

    A $100 - 5d$

    B $5d + 100$

    C $\dfrac{100}{5d}$

    D $5d$

GO ON

38 The inequality below compares two rational numbers.

$$-\frac{8}{18} > -\frac{17}{27}$$

If the two numbers were plotted as values on a horizontal number line, which statement would be true?

A Both numbers lie to the right of 0, and $-\frac{8}{18}$ lies to the left of $-\frac{17}{27}$.

B Both numbers lie to the left of 0, and $-\frac{8}{18}$ lies to the left of $-\frac{17}{27}$.

C Both numbers lie to the right of 0, and $-\frac{8}{18}$ lies to the right of $-\frac{17}{27}$.

D Both numbers lie to the left of 0, and $-\frac{8}{18}$ lies to the right of $-\frac{17}{27}$.

39 Which value or values for the variable c from the set below will make $5.6 + 0.4c \le 6c$ true?

$$\{0,\ 0.875,\ 1,\ 2.5\}$$

A only 2.5

B 1 and 2.5

C 0.875, 1, and 2.5

D all values in the set

40 Steve ordered plastic cases for storing his baseball cards. Each case has a length of 12 centimeters, a width of 6.5 centimeters, and a height of 1.25 centimeters. What is the volume, in cubic centimeters, of one baseball card case?

A 39.5

B 97.5

C 118.5

D 202.25

41 Kim rode her bicycle 135 miles in 9 weeks, riding the same distance each week. Eric rode his bicycle 102 miles in 6 weeks, riding the same distance each week. Which statement correctly compares the number of miles per week they rode?

A Eric rode 2 more miles per week than Kim rode.

B Kim rode 3 more miles per week than Eric rode.

C Kim rode 11 more miles per week than Eric rode.

D Eric rode 17 more miles per week than Kim rode.

GO ON

42 A net of a triangular prism is shown below.
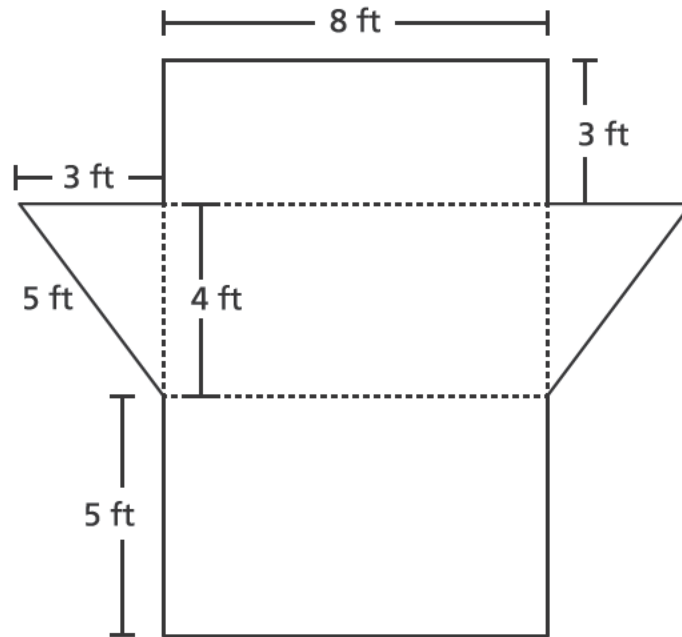
What is the surface area, in square feet, of the triangular prism?

A 44

B 96

C 108

D 120

43 The two expressions below are equivalent.

$$y(2.5 + 7) + y - 2$$

$$10.5y - 2$$

Which statement **best** explains why the expressions are equivalent?

A The expressions have the same value for any value of y.

B The expressions have the same value for only whole number values of y.

C The expressions have the same value only when y is an odd number.

D The expressions have the same value only when y is an even number.

44 Two whole numbers have a least common multiple of 60.

- Each number is less than or equal to 12.
- The greatest common factor of the two numbers is 2.

What are the two numbers?

A 6 and 10

B 5 and 12

C 10 and 12

D 12 and 15

GO ON

45 Which quantity could go in the blank to make the equation below true?

$$x + 2x + \text{\_\_\_\_} = 5x$$

A 2

B 3

C 2x

D 3x

46 Which coordinate grid shows point M plotted at (4, 3)?

GO ON
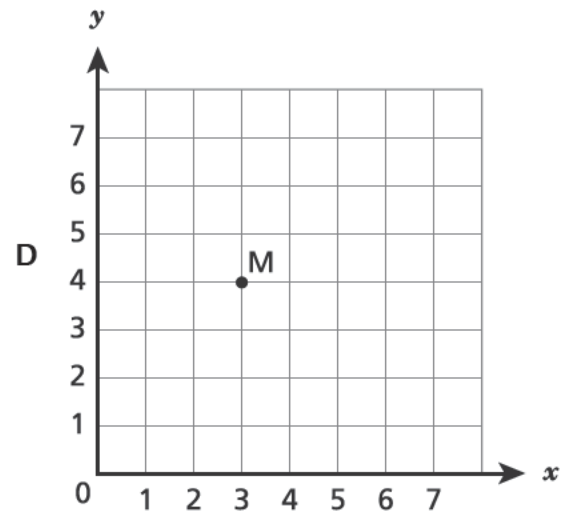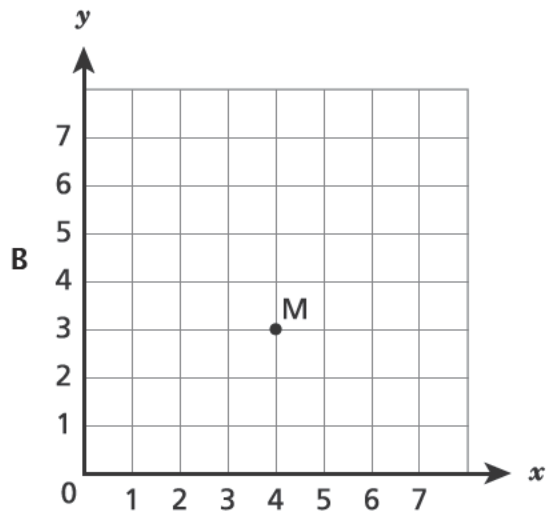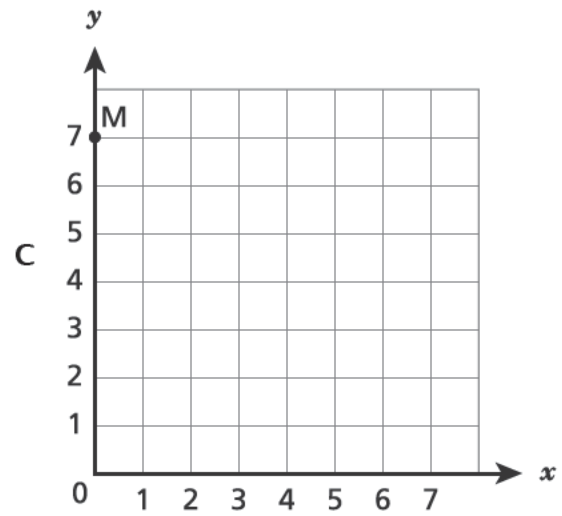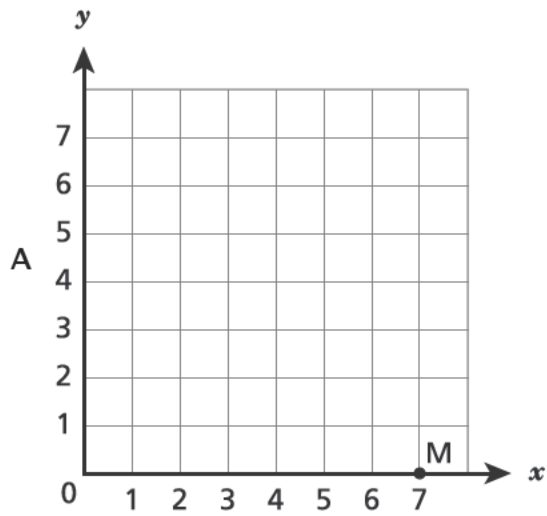
50 What is the area, in square centimeters, of the shaded part of the rectangle shown below?
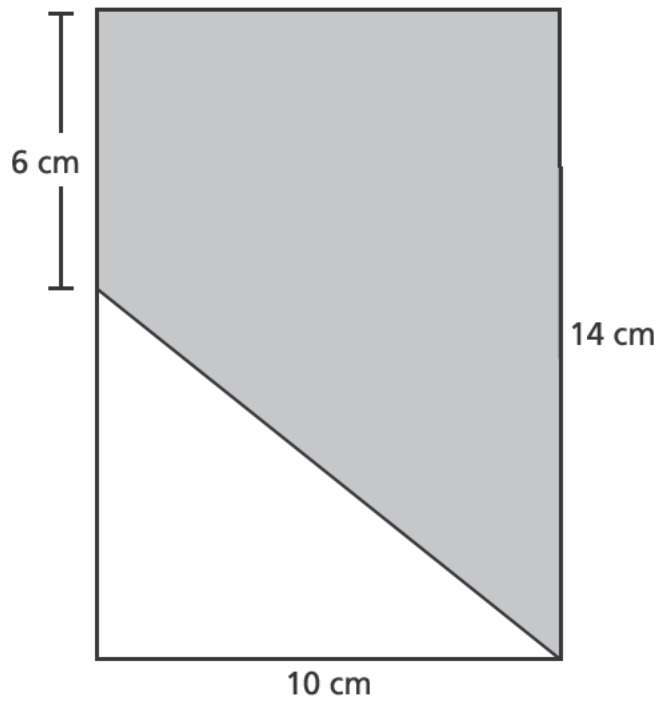
A 20

B 60

C 100

D 140

51 A sandwich shop sells sandwiches for $5.95 each, including tax. The shop received a total of $71.40 from the sales of sandwiches one afternoon. Which equation can be used to determine the number of sandwiches, x, sold by the sandwich shop that afternoon?

A $5.95 + x = 71.40$

B $5.95 \div 71.40 = x$

C $5.95x = 71.40$

D $5.95 \div x = 71.40$

STOP

Grade 6
2017 Common Core
Mathematics Test
Book 2
May 2–4, 2017

Name: _____

New York State Testing Program

2017 Common Core Mathematics Test Book 3

Grade 6

May 2–4, 2017

Released Questions

Grade 6 Mathematics Reference Sheet

CONVERSIONS

1 inch = 2.54 centimeters	1 kilometer = 0.62 mile	1 cup = 8 fluid ounces
1 meter = 39.37 inches	1 pound = 16 ounces	1 pint = 2 cups
1 mile = 5,280 feet	1 pound = 0.454 kilogram	1 quart = 2 pints
1 mile = 1,760 yards	1 kilogram = 2.2 pounds	1 gallon = 4 quarts
1 mile = 1.609 kilometers	1 ton = 2,000 pounds	1 gallon = 3.785 liters
		1 liter = 0.264 gallon
		1 liter = 1,000 cubic centimeters

FORMULAS

Triangle	$A = \frac{1}{2}bh$
Right Rectangular Prism	$V = Bh$ or $V = lwh$

Book 3

TIPS FOR TAKING THE TEST

Here are some suggestions to help you do your best:

- Read each question carefully and think about the answer before writing your response.

- You have been provided with mathematics tools (a ruler, a protractor, and a calculator) and a reference sheet to use during the test. It is up to you to decide when each tool and the reference sheet will be helpful. You should use mathematics tools and the reference sheet whenever you think they will help you to answer the question.

- Be sure to show your work when asked.

52 Dana and Monique are dog groomers. Dana's workday is 10 hours and Monique's workday is 8 hours. Dana and Monique each work 40 hours per week.

On Monday, Dana groomed 15 dogs in 10 hours and Monique groomed 10 dogs in 8 hours. They each earn $12.75 for each dog groomed. Assuming that for the rest of the week Dana and Monique groom the same number of dogs per workday as they did on Monday, what will be the difference between their weekly earnings?

Show your work.

Answer $_____

53 The formula below is used to convert a temperature in degrees Celsius, *C*, to a temperature in degrees Fahrenheit, *F*.

$$F = 1.8C + 32$$

The high temperature in a mountain city was 15°C. What was the high temperature in degrees Fahrenheit?

Show your work.

Answer _____ °F

54 A seamstress needs to cut 15-inch pieces of ribbon from a roll of ribbon that is 9 feet in length. What is the greatest number of 15-inch pieces the seamstress can cut from 5 of these rolls of ribbon?

Show your work.

Answer _____ pieces

55 It is recommended that one fire extinguisher be available for every 6,000 square feet in a building. Write and solve an equation to determine *x*, the number of fire extinguishers needed for a building that has 135,000 square feet.

Show your work.

Answer _____ fire extinguishers

56 A company sells cereal in two different-sized boxes. The smaller box has the dimensions shown below.

Smaller Cereal Box
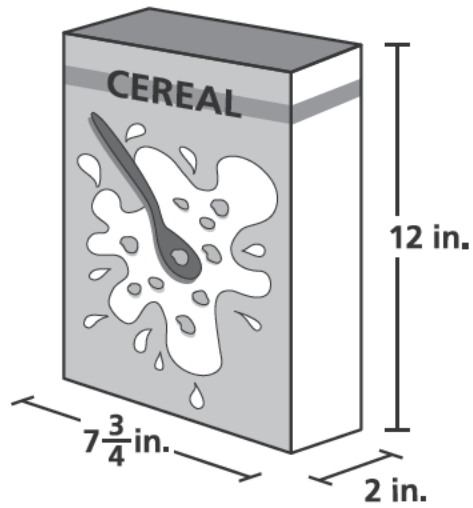
The height of the smaller box is 80% of the height of the larger box, while the other two dimensions are the same for both boxes. What is the difference in the volumes of the two boxes?

Show your work.

Answer _____ cubic inches

57 The area of Brian's rectangular garden, in square feet, can be found by using the expression $6(2x + 5y)$. Use the distributive property to write an equivalent expression for the area of Brian's garden.

Equivalent expression _____

Use your equivalent expression to find the area of Brian's garden, in square feet, if $x = 3$ and $y = 4$.

Show your work.

Area _____ square feet

58 A hotel has a number of meeting rooms, *m*, available for events. Each meeting room has 325 chairs. Write an equation to represent *c*, the total number of chairs, in all of the meeting rooms at the hotel.

Equation _____

If $m = 7$, use your equation to find the total number of chairs in all of the meeting rooms at the hotel.

Show your work.

Answer _____ chairs

GO ON

59 Jimmy and his family are on their way to visit some family friends who live 780 miles away from them. Based on the route they chose, they expect to complete their trip in three days. The distances and average speeds for the first two days driven are shown below.

- First day: 4 hours at an average speed of 60 miles per hour
- Second day: 6 hours at an average speed of 65 miles per hour

If the average speed on the third day is 60 miles per hour, how many more hours will it take for them to reach their family friends' home?

Show your work.

Answer _____ hours

60 A right rectangular prism has a length of $2\frac{1}{2}$ feet, a width of 3 feet, and a height of $1\frac{1}{2}$ feet. Unit cubes with side lengths of $\frac{1}{2}$ foot are added to completely fill the prism with no space remaining. What is the volume, in cubic feet, of the right rectangular prism?

Show your work.

Answer _____ cubic feet

How many $\frac{1}{2}$-foot unit cubes can be added to fill the prism completely? Use what you know about unit cubes or the side lengths of prisms to show your work or explain your answer.

Answer _____ unit cubes

GO ON

61 The table below shows the elevations at which different artifacts were found during an archeological dig.

Artifact	Elevation
arrow head	15 feet above sea level
bone	721 feet above sea level
clay bowl	sea level
necklace	462 feet above sea level
woven basket	1,200 feet below sea level

Write the name of each artifact and the elevation at which each artifact was found using a positive integer, zero, or negative integer.

_____

_____

_____

_____

Explain how you determined if an elevation required a positive integer, zero, or negative integer.

_____

_____

_____

STOP

Grade 6
2017 Common Core
Mathematics Test
Book 3
May 2–4, 2017

Grade 6

Question	Type	Key	Points	Standard	Cluster	Secondary Standard(s)	Multiple Choice Questions: Percentage of Students Who Answered Correctly (P-Value)	Constructed Response Questions: Average Points Earned	P-Value (Average Points Earned ÷ Total Possible Points)
Book 1									
1	Multiple Choice	B	1	CCSS.Math.Content.6.RP.A.3a	Ratios and Proportional Relationships		0.56		
2	Multiple Choice	D	1	CCSS.Math.Content.6.EE.B.5	Expressions and Equations		0.57		
3	Multiple Choice	A	1	CCSS.Math.Content.6.NS.A.1	The Number System		0.35		
4	Multiple Choice	C	1	CCSS.Math.Content.6.EE.A.1	Expressions and Equations		0.69		
9	Multiple Choice	A	1	CCSS.Math.Content.6.G.A.1	Geometry		0.24		
10	Multiple Choice	C	1	CCSS.Math.Content.5.G.A.2	The Number System		0.38		
13	Multiple Choice	B	1	CCSS.Math.Content.6.EE.C.9	Expressions and Equations		0.73		
14	Multiple Choice	C	1	CCSS.Math.Content.6.RP.A.3a	Ratios and Proportional Relationships		0.65		
15	Multiple Choice	A	1	CCSS.Math.Content.6.EE.A.2a	Expressions and Equations		0.65		
16	Multiple Choice	A	1	CCSS.Math.Content.6.EE.B.8	Expressions and Equations		0.46		
17	Multiple Choice	C	1	CCSS.Math.Content.6.G.A.4	Geometry		0.22		
18	Multiple Choice	A	1	CCSS.Math.Content.6.RP.A.3c	Ratios and Proportional Relationships		0.53		
19	Multiple Choice	A	1	CCSS.Math.Content.6.EE.B.6	Expressions and Equations		0.42		
20	Multiple Choice	B	1	CCSS.Math.Content.6.NS.A.1	The Number System		0.42		
23	Multiple Choice	D	1	CCSS.Math.Content.6.EE.A.3	Expressions and Equations		0.64		
24	Multiple Choice	D	1	CCSS.Math.Content.6.RP.A.3c	Ratios and Proportional Relationships		0.49		
25	Multiple Choice	D	1	CCSS.Math.Content.6.EE.A.4	Expressions and Equations		0.41		
26	Multiple Choice	C	1	CCSS.Math.Content.6.NS.B.4	The Number System		0.52		
Book 2									
27	Multiple Choice	D	1	CCSS.Math.Content.6.RP.A.3c	Ratios and Proportional Relationships		0.78		

Grade 6

Question	Type	Key	Points	Standard	Cluster	Secondary Standard(s)	Multiple Choice Questions: Percentage of Students Who Answered Correctly (P-Value)	Constructed Response Questions: Average Points Earned	P-Value (Average Points Earned ÷ Total Possible Points)
28	Multiple Choice	B	1	CCSS.Math.Content.6.NS.B.4	The Number System		0.83		
29	Multiple Choice	A	1	CCSS.Math.Content.6.EE.A.2c	Expressions and Equations		0.53		
30	Multiple Choice	D	1	CCSS.Math.Content.6.NS.C.6a	The Number System		0.76		
34	Multiple Choice	D	1	CCSS.Math.Content.6.EE.C.9	Expressions and Equations		0.70		
35	Multiple Choice	C	1	CCSS.Math.Content.6.RP.A.3	Ratios and Proportional Relationships		0.68		
36	Multiple Choice	B	1	CCSS.Math.Content.6.G.A.3	Geometry		0.54		
37	Multiple Choice	A	1	CCSS.Math.Content.6.EE.B.6	Expressions and Equations		0.49		
38	Multiple Choice	D	1	CCSS.Math.Content.6.NS.C.7a	The Number System		0.54		
39	Multiple Choice	B	1	CCSS.Math.Content.6.EE.B.5	Expressions and Equations		0.38		
40	Multiple Choice	B	1	CCSS.Math.Content.6.G.A.2	Geometry		0.82		
41	Multiple Choice	A	1	CCSS.Math.Content.6.RP.A.2	Ratios and Proportional Relationships		0.59		
42	Multiple Choice	C	1	CCSS.Math.Content.6.G.A.4	Geometry		0.45		
43	Multiple Choice	A	1	CCSS.Math.Content.6.EE.A.4	Expressions and Equations		0.50		
44	Multiple Choice	C	1	CCSS.Math.Content.6.NS.B.4	The Number System		0.45		
45	Multiple Choice	C	1	CCSS.Math.Content.6.EE.A.3	Expressions and Equations		0.41		
46	Multiple Choice	B	1	CCSS.Math.Content.5.G.A.1	The Number System		0.85		
50	Multiple Choice	C	1	CCSS.Math.Content.6.G.A.1	Geometry		0.35		
51	Multiple Choice	C	1	CCSS.Math.Content.6.EE.B.7	Expressions and Equations		0.49		
Book 3									
52	Constructed Response		2	CCSS.Math.Content.6.RP.A.3b	Ratios and Proportional Relationships			0.76	0.38
53	Constructed Response		2	CCSS.Math.Content.6.EE.A.2c	Expressions and Equations			0.82	0.41
54	Constructed Response		2	CCSS.Math.Content.6.RP.A.3d	Ratios and Proportional Relationships			0.42	0.21

Grade 6

Question	Type	Key	Points	Standard	Cluster	Secondary Standard(s)	Multiple Choice Questions: Percentage of Students Who Answered Correctly (P-Value)	Constructed Response Questions: Average Points Earned	P-Value (Average Points Earned ÷ Total Possible Points)
55	Constructed Response		2	CCSS.Math.Content.6.EE.B.7	Expressions and Equations			1.13	0.56
56	Constructed Response		2	CCSS.Math.Content.6.RP.A.3c	Ratios and Proportional Relationships			0.70	0.35
57	Constructed Response		2	CCSS.Math.Content.6.EE.A.3	Expressions and Equations	CCSS.Math.Content.6.EE.A.2c		1.07	0.54
58	Constructed Response		3	CCSS.Math.Content.6.EE.B.7	Expressions and Equations			2.07	0.69
59	Constructed Response		3	CCSS.Math.Content.6.RP.A.3b	Ratios and Proportional Relationships			1.16	0.39
60	Constructed Response		3	CCSS.Math.Content.6.G.A.2	Geometry			0.76	0.25
61	Constructed Response		3	CCSS.Math.Content.6.NS.C.5	The Number System			1.96	0.65

*This item map is intended to identify the primary analytic skills necessary to successfully answer each question. However, some questions measure proficiencies described in multiple standards, including a balanced combination of procedural and conceptual understanding.