New York State
EDUCATION DEPARTMENT
Knowledge › Skill › Opportunity

New York State Testing Program
Grade 6
Mathematics Test

Released Questions

2025

New York State administered the Mathematics Tests in Spring 2025 and is 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 2025 Exams

Background

As in past years, SED is releasing large portions of the 2025 NYS Grades 3–8 English Language Arts and Mathematics test materials for review, discussion, and use.

For 2025, included in these released materials are at least 75 percent of the test questions that appeared on the 2025 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 Next Generation 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.

One-Credit Constructed-Response Questions
One-credit constructed-response questions require students to complete a task and provide only their final answer. These one-credit questions will often require multiple steps, assessing procedural skills, as well as conceptual understanding and application. While students may show how they arrived at their final answer, only the final answer will be scored.

Two-Credit Constructed-Response Questions
Two-credit constructed-response questions require students to complete tasks and show their work. These two-credit 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 standards.

Three-Credit Constructed-Response Questions
Three-credit constructed-response questions ask students to show their work in completing two or more tasks or a more extensive problem. These three-credit response questions allow students to show their understanding of mathematical procedures, conceptual understanding, and application. Three-credit response questions may also assess student reasoning and the ability to critique the arguments of others. The scoring rubric for all constructed-response questions can be found in the grade-level Educator Guides at https://www.nysed.gov/state-assessment/grades-3-8-ela-and-math-test-manuals.

New York State P–12 Next Generation Learning Standards Alignment

The alignment(s) to the New York State P–12 Next Generation 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-credit and three-credit 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 it is possible to develop future tests, some content must remain secure. 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 Next Generation 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.

Name: _____

New York State Testing Program

Mathematics Test
Session 1

Grade 6

Spring 2025

RELEASED QUESTIONS

Session 1

TIPS FOR TAKING THE TEST

Here are some ideas to help you do your best:

- Read each question carefully. Take your time.
- You have a ruler, a protractor, and a reference sheet that you can use on the test if they help you answer the question.

1 A recipe requires 2 cups of cheese for every 8 ounces of noodles. Which table represents the ratio of cheese to noodles for this recipe?

A

RECIPE

Cheese (cups)	Noodles (ounces)
2	8
3	9
4	10
5	11

B

RECIPE

Cheese (cups)	Noodles (ounces)
2	8
4	16
6	24
8	32

C

RECIPE

Cheese (cups)	Noodles (ounces)
8	2
9	3
10	4
11	5

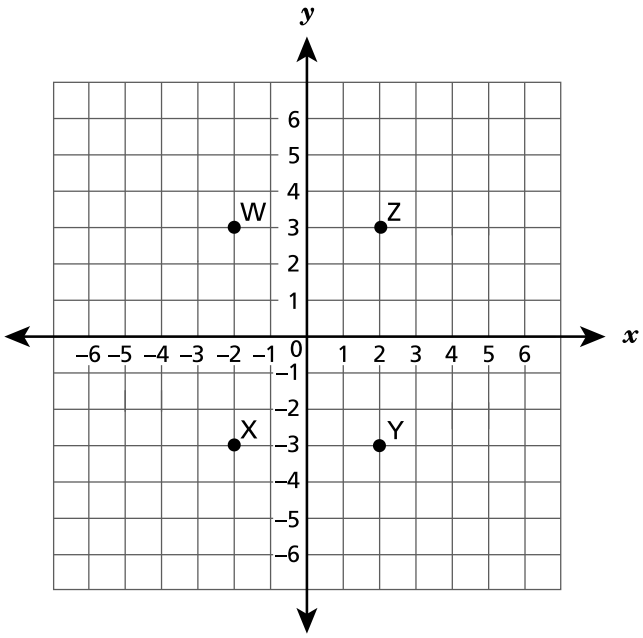
D

RECIPE

Cheese (cups)	Noodles (ounces)
8	2
16	4
24	6
32	8

GO ON

3 Points W, X, Y, and Z are plotted on the coordinate plane shown below.



Which point is located at $(-2, 3)$?

A point W

B point X

C point Y

D point Z

5 What is the value of the expression shown below when $c = 2$ and $h = 3$?

$$c^3 + 4h - 7$$

A 11

B 13

C 42

D 44

6 A carton contains $4\frac{1}{2}$ cups of ice cream. One full serving is $\frac{3}{4}$ cup. What is the total number of full servings of ice cream in the carton?

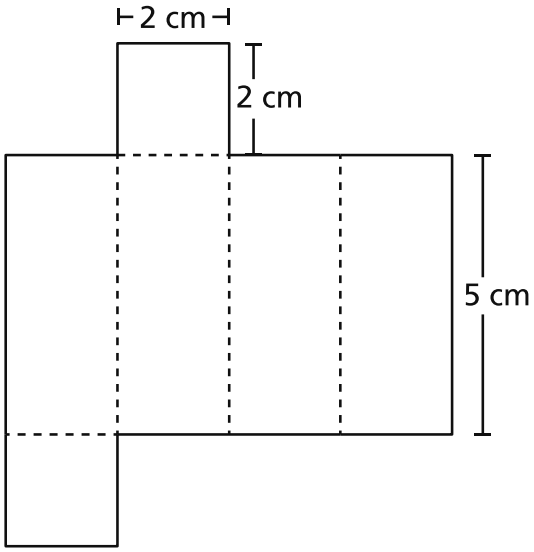
A $3\frac{3}{4}$

B $5\frac{1}{4}$

C 6

D 12

13 The net of a right rectangular prism is shown below.



What is the surface area, in square centimeters, of this prism?

A 20

B 34

C 40

D 48

GO ON

16 An office has two copiers. Copier A prints 350 pages in 7 minutes. Copier B prints 210 pages in 3 minutes. How many more pages can Copier B print in 1 minute than Copier A ?

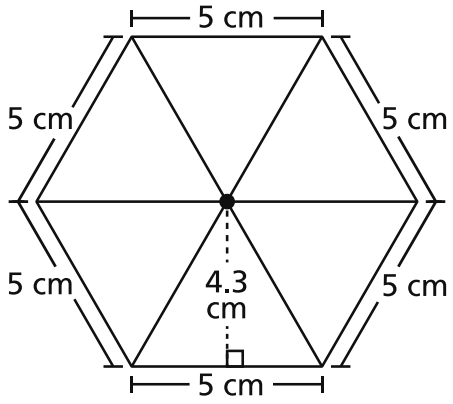
A 20

B 35

C 50

D 70

17 A regular hexagon is made of equilateral triangles, as shown below.



What is the area, in square centimeters, of the regular hexagon?

A 10.75

B 21.5

C 34.3

D 64.5

GO ON

19 What is the value of the expression shown below?

$$\frac{(3^2 + 5 \cdot 3)}{2^3}$$

A 3

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

C 4

D $5\frac{1}{4}$

21 A teacher asks 50 sixth grade students to vote for their favorite hobby. The table below shows the results.

FAVORITE HOBBIES

Hobby	Number of Students
Reading	12
Playing a musical instrument	11
Watching movies	9
Playing sports	18

What percent of the students voted for either playing a musical instrument or reading as their favorite hobby?

A 12%

B 23%

C 46%

D 54%

GO ON

23 What is the coefficient in the expression $2x^3$?

A 2

B 3

C x

D $2x$

27 Which number is **not** a solution to the inequality shown below?

$$3w \geq 12$$

A 3

B 4

C 5

D 8

GO ON

28 A school club includes students from four grade levels. The number of students from each grade level is shown in the list below.

- 12 students from Grade 5
- 6 students from Grade 6
- 2 students from Grade 7
- 8 students from Grade 8

What is the ratio of the total number of students in the club from Grades 5 and 6 to the total number of students in the club from Grades 7 and 8 ?

A 2 : 1

B 3 : 1

C 5 : 9

D 9 : 5

30 Which expression represents the phrase "the sum of fifteen and five less than twice a number, n" ?

A $15(5 - 2n)$

B $15(2n - 5)$

C $15 + (5 - 2n)$

D $15 + (2n - 5)$

STOP

Grade 6
Mathematics Test
Session 1
Spring 2025

Name: _____

New York State Testing Program

Mathematics Test
Session 2

Grade 6

Spring 2025

RELEASED QUESTIONS

Developed and published under contract with the New York State Education Department by NWEA, a division of HMH, 14720 Energy Way, Apple Valley, MN 55124.

Session 2

TIPS FOR TAKING THE TEST

Here are some ideas to help you do your best:

- Read each question carefully. Take your time.
- You have a ruler, a protractor, a reference sheet, and a calculator that you can use on the test if they help you answer the question.
- Be sure to show your work when asked.
- Be sure to explain your answer when asked.

31 Tyrone deposits $\$65$ into his bank account. The next day he withdraws $\$20$. Which two integers represent the activity in Tyrone's bank account?

A -65 and -20

B -65 and 20

C 65 and -20

D 65 and 20

32 Mary rides her bike at an average speed of 12 miles in 1 hour. Riding at this rate, how many feet does Mary ride in 1 minute?

A 1,056

B 26,400

C 63,360

D 3,801,600

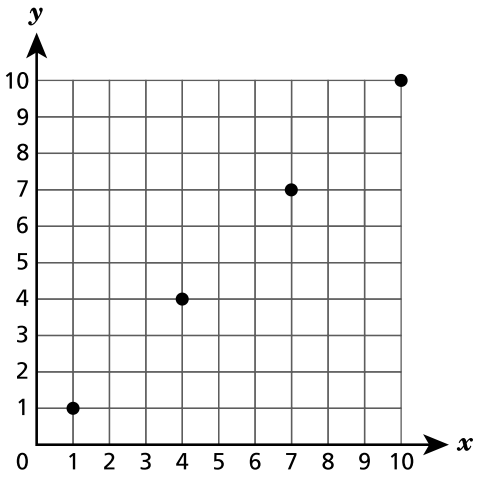
GO ON

33 The two rules shown below are used to generate sets of ordered pairs. The starting point is $(1, 1)$. The ordered pairs are then graphed on a coordinate plane.

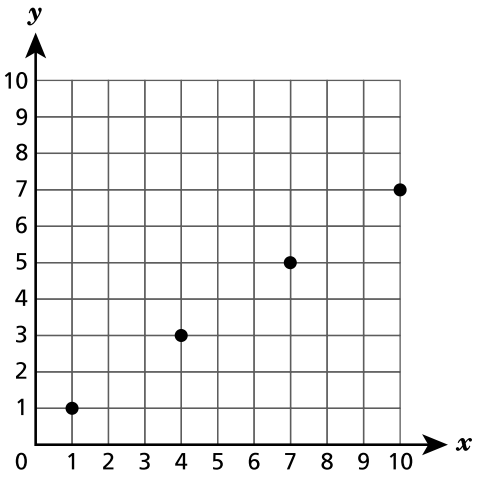
- Rule for x coordinate: Each value is 3 more than the one before it.
- Rule for y coordinate: Each value is 2 more than the one before it.

Which graph shows the set of ordered pairs?

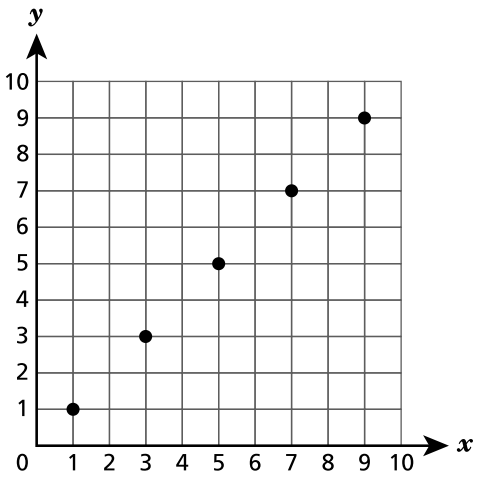
A



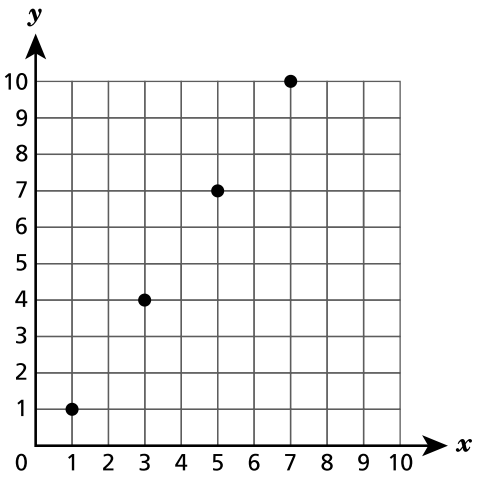
C



B



D



34 A gift box is in the shape of a right rectangular prism. The gift box is $7\frac{3}{5}$ centimeters long, $5\frac{4}{5}$ centimeters wide, and $2\frac{1}{2}$ centimeters high. What is the volume, in cubic centimeters, of the gift box?

A $15\frac{9}{10}$

B $70\frac{6}{25}$

C $110\frac{1}{5}$

D $155\frac{8}{50}$

35 Hannah buys oranges and apples from the grocery store. She pays \$6.25 for 5 pounds of oranges and \$6.90 for 6 pounds of apples. Which statement about the fruit is true?

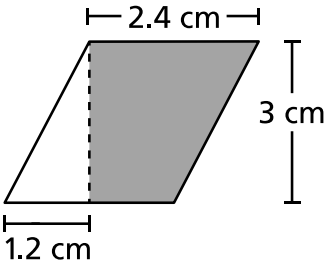
A Apples have the greater unit price at \$1.15.

B Apples have the greater unit price at \$1.25.

C Oranges have the greater unit price at \$1.15.

D Oranges have the greater unit price at \$1.25.

36 The figure below shows a parallelogram with part of it shaded.



What is the area, in square centimeters, of the part of the parallelogram that is shaded?

A 3.6

B 5.4

C 4.32

D 8.64

37 **This question is worth 1 credit.**

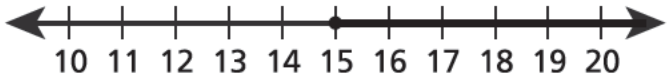
Mr. Kamski has 6 students in his class who play an instrument. These students represent 24% of the total number of students in his class. What is the total number of students in his class?

Answer _____ students

GO ON

38 **This question is worth 1 credit.**

The solution set for an inequality is represented on the number line shown below.



Using the variable *x*, write an inequality that describes the solution set represented on the number line.

Answer _____

39 **This question is worth 1 credit.**

What is the greatest common factor of 72 and 96 ?

Answer _____

GO ON

40 **This question is worth 2 credits.**

What is the value of the expression $4(3 + 5^2) - 6$?

Show your work.

Answer _____

GO ON

41 **This question is worth 2 credits.**

A restaurant buys cheese in large blocks. The table below shows the relationship between the number of blocks of cheese, *b*, that they buy, and the total amount paid, *t*, in dollars.

CHEESE PRICES

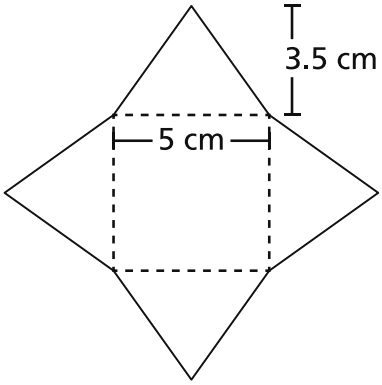
Amount of Cheese, *b* (blocks)	Total Price, *t* (dollars)
2	112
4	224
6	336
8	448

Based on the data in the table, write an equation to represent the total price, *t*, in terms of the number of blocks of cheese bought, *b*. Be sure to identify the independent and dependent variables in your explanation.

Explain your answer.

42 **This question is worth 2 credits.**

The net of a right square pyramid is shown below.



What is the surface area, in square centimeters, of the pyramid?

Show your work.

Answer _____ square centimeters

43 **This question is worth 2 credits.**

The top of a rectangular table has a width of $3\frac{1}{3}$ feet and an area of $21\frac{2}{3}$ square feet.

What is the length, in feet, of the top of the table?

Show your work.

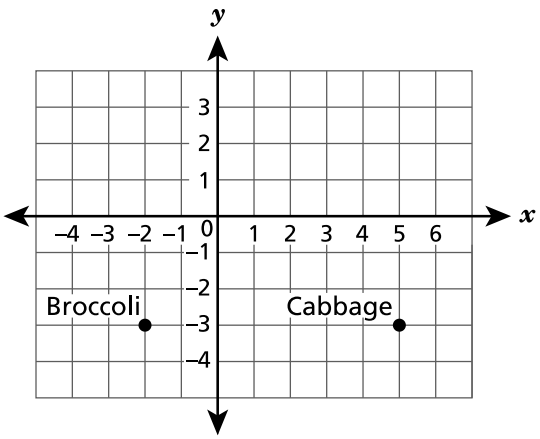
Answer _____ feet

GO ON

44 **This question is worth 2 credits.**

Paige uses the coordinate plane shown below to represent the locations of the vegetable patches in her garden. Each unit on the coordinate plane represents 1 foot.

PAIGE'S GARDEN



What is the shortest distance, in feet, from the cabbage patch to the broccoli patch? Be sure to include the coordinates that represent the locations of both vegetable patches in your answer.

Explain how you determined your answer.

45 **This question is worth 2 credits.**

A recipe requires a ratio of 2 cups of sesame seeds to 5 cups of pretzels. Using this ratio, how many cups of pretzels are needed when 3 cups of sesame seeds are used?

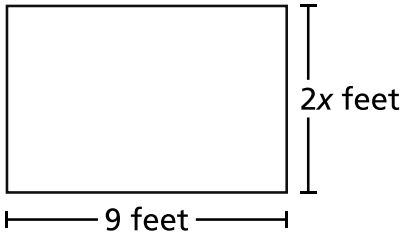
Show your work.

Answer _____ cups of pretzels

GO ON

46 **This question is worth 3 credits.**

The figure below shows the dimensions of a rug shaped like a rectangle.



The area of the rug is 54 square feet. Write and solve an equation to determine the value of x. Be sure to use the unknown, x, in your equation.

Show your work.

Answer $x =$ _____

A company buys 7 of these rugs for $784. Write and solve an equation to determine the price, p, of each rug. Be sure to use the unknown, p, in your equation.

Show your work.

Answer $ _____

STOP

Grade 6
Mathematics Test
Session 2
Spring 2025

THE STATE EDUCATION DEPARTMENT

THE UNIVERSITY OF THE STATE OF NEW YORK / ALBANY, NY 12234

2025 Mathematics Tests Map to the Standards

Grade 6

Question	Type	Key	Points	Standard	Cluster	Subscore	Secondary Standard(s)
Session 1							
1	Multiple Choice	B	1	NGLS.Math.Content.NY-6.RP.3a	Ratios and Proportional Relationships	Ratios and Proportional Relationships	
3	Multiple Choice	A	1	NGLS.Math.Content.NY-6.NS.6c	The Number System	The Number System	
5	Multiple Choice	B	1	NGLS.Math.Content.NY-6.EE.2c	Expressions and Equations	Expressions and Equations	
6	Multiple Choice	C	1	NGLS.Math.Content.NY-6.NS.1	The Number System	The Number System	
13	Multiple Choice	D	1	NGLS.Math.Content.NY-6.G.4	Geometry		
16	Multiple Choice	A	1	NGLS.Math.Content.NY-6.RP.3b	Ratios and Proportional Relationships	Ratios and Proportional Relationships	
17	Multiple Choice	D	1	NGLS.Math.Content.NY-6.G.1	Geometry		
19	Multiple Choice	A	1	NGLS.Math.Content.NY-6.EE.1	Expressions and Equations	Expressions and Equations	
21	Multiple Choice	C	1	NGLS.Math.Content.NY-6.RP.3c	Ratios and Proportional Relationships	Ratios and Proportional Relationships	
23	Multiple Choice	A	1	NGLS.Math.Content.NY-6.EE.2b	Expressions and Equations	Expressions and Equations	
27	Multiple Choice	A	1	NGLS.Math.Content.NY-6.EE.5	Expressions and Equations	Expressions and Equations	
28	Multiple Choice	D	1	NGLS.Math.Content.NY-6.RP.1	Ratios and Proportional Relationships	Ratios and Proportional Relationships	
30	Multiple Choice	D	1	NGLS.Math.Content.NY-6.EE.2a	Expressions and Equations	Expressions and Equations	
Session 2							
31	Multiple Choice	C	1	NGLS.Math.Content.NY-6.NS.5	The Number System	The Number System	
32	Multiple Choice	A	1	NGLS.Math.Content.NY-6.RP.3d	Ratios and Proportional Relationships	Ratios and Proportional Relationships	
33	Multiple Choice	C	1	NGLS.Math.Content.NY-5.OA.3	Expressions and Equations	Expressions and Equations	
34	Multiple Choice	C	1	NGLS.Math.Content.NY-6.G.2	Geometry		
35	Multiple Choice	D	1	NGLS.Math.Content.NY-6.RP.2	Ratios and Proportional Relationships	Ratios and Proportional Relationships	
36	Multiple Choice	B	1	NGLS.Math.Content.NY-6.G.1	Geometry		
37	Constructed Response	n/a	1	NGLS.Math.Content.NY-6.RP.3c	Ratios and Proportional Relationships	Ratios and Proportional Relationships	
38	Constructed Response	n/a	1	NGLS.Math.Content.NY-6.EE.8	Expressions and Equations	Expressions and Equations	
39	Constructed Response	n/a	1	NGLS.Math.Content.NY-6.NS.4	The Number System	The Number System	
40	Constructed Response	n/a	2	NGLS.Math.Content.NY-6.EE.1	Expressions and Equations	Expressions and Equations	
41	Constructed Response	n/a	2	NGLS.Math.Content.NY-6.EE.9	Expressions and Equations	Expressions and Equations	
42	Constructed Response	n/a	2	NGLS.Math.Content.NY-6.G.4	Geometry		
43	Constructed Response	n/a	2	NGLS.Math.Content.NY-6.NS.1	The Number System	The Number System	
44	Constructed Response	n/a	2	NGLS.Math.Content.NY-6.NS.8	The Number System	The Number System	
45	Constructed Response	n/a	2	NGLS.Math.Content.NY-6.RP.3b	Ratios and Proportional Relationships	Ratios and Proportional Relationships	
46	Constructed Response	n/a	3	NGLS.Math.Content.NY-6.EE.7	Expressions and Equations	Expressions and Equations	

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.