New York State
EDUCATION DEPARTMENT
Knowledge › Skill › Opportunity

New York State Testing Program
Grade 4
Mathematics Test

Released Questions

2021

New York State administered the Mathematics Tests in May 2021 and is now making the questions from Session 1 of these tests available for review and use. Only Session 1 was required in 2021.

New York State Testing Program
Grades 3–8 Mathematics

Released Questions from 2021 Tests

Background

In 2013, New York State (NYS) 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 (NYSED) 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 2021 NYS Grades 3–8 English Language Arts and Mathematics test materials for review, discussion, and use.

In February 2021, with the ongoing COVID-19 pandemic still forcing restrictions on all educational and learning activities statewide, NYSED submitted two federal waiver requests related to state assessment and accountability requirements. The waiver requests addressed the unique circumstances caused by the pandemic that have resulted in many students receiving some or all of their instruction remotely.

Later that month, the United States Department of Education (USDE) informed states that it would not grant a blanket waiver for state assessments. However, the USDE agreed to uncouple state assessments from the Every Student Succeeds Act (ESSA) accountability requirements so that test results will be used solely as a measure of student learning. Additionally, it was decided that NYSED would administer only Session 1 of the Grades 3–8 ELA and Mathematics Tests for the Spring 2021 administration and that the tests would include previously administered questions.

The decision to use previously administered test questions in this extraordinary year was based on guidance from nationally recognized experts in the assessment field and was recommended in a publication from the Council of Chief State School Officers to state education departments. Reusing test questions provided the benefit of having established scale scores and stable item parameters. Using previously administered test questions also ensured that it will be possible to develop new test forms for 2022 and beyond. Although it was not the driver of the decision, the reuse of previously administered test questions provided an opportunity for cost savings during these unique circumstances where the instructional models used by schools varied throughout the State.

For 2021, the entire Session 1 booklet is being released as this is all that students were required to take. Additionally, NYSED is providing a map that details what learning standards 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 NYSED's expectations for students.

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.

New York State P–12 Learning Standards Alignment

The alignment to the New York State P–12 Learning Standards for Mathematics is intended to identify the primary analytic skills necessary to successfully answer each question. 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

Mathematics Test
Session 1

Grade 4

v202

Released Questions

Session 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 making your choice.

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

1 Tatum walks her dog $\frac{2}{3}$ mile every day after school. How many miles does she walk her dog in 5 days?

A $\quad \frac{7}{3}$

B $\quad \frac{10}{3}$

C $\quad \frac{2}{15}$

D $\quad \frac{10}{15}$

2 The number of points Jaden scored in a game is less than 45, and is also a multiple of 7. How many points could Jaden have scored?

A $\quad$ 17

B $\quad$ 35

C $\quad$ 52

D $\quad$ 70

3 Which comparison is true?

A $\quad \frac{2}{3} = \frac{8}{12}$

B $\quad \frac{4}{9} = \frac{8}{9}$

C $\quad \frac{3}{4} > \frac{9}{10}$

D $\quad \frac{2}{4} > \frac{2}{3}$

GO ON

4 There are three different sections to sit in at a baseball park. The number of people who can sit in each section is described below.

- red section seats 200 people

- blue section seats 20 fewer people than the red section

- green section seats 2 times as many people as the blue section

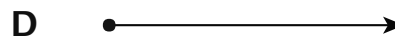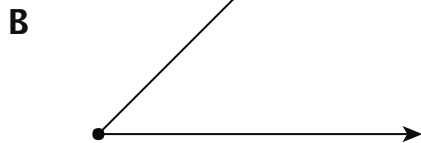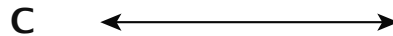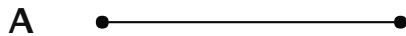What is the total number of people who can sit in the baseball park?

A 260

B 380

C 640

D 740

5 Which figure is an example of a line segment?

A

C

B

D

6 Izzy's family has orange trees in their yard. They picked 126 oranges. They kept 10 oranges for themselves and shared the rest evenly among 4 other families. Which equation can be used to determine n, the number of oranges each of the other families received?

A $(126 - 4) \div 10 = n$

B $(126 - 10) \div 4 = n$

C $(126 + 10) \div 4 = n$

D $(126 + 4) \div 10 = n$

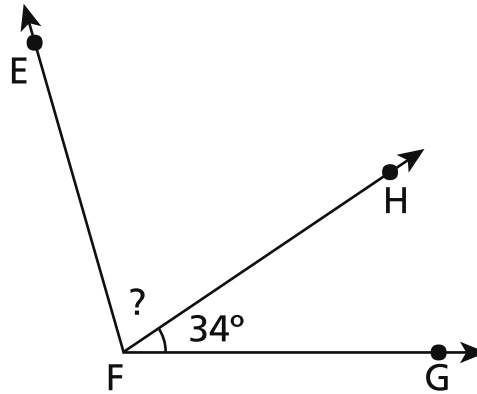**7** Which fraction model has a shaded area equivalent to $\dfrac{3}{12}$?

A

C

B

D

GO ON

Session 1

8 The measure of angle EFG shown below is 106 degrees.

What is the measure, in degrees, of angle EFH?

A 34

B 56

C 72

D 140

9 Which list of fractions is in order from least to greatest value?

A $\frac{1}{2}, \frac{1}{4}, \frac{3}{4}$

B $\frac{1}{4}, \frac{1}{2}, \frac{3}{4}$

C $\frac{1}{4}, \frac{3}{4}, \frac{1}{2}$

D $\frac{1}{2}, \frac{3}{4}, \frac{1}{4}$

GO ON

10 Betsy has $4\frac{1}{3}$ cups of lemonade in a pitcher. She pours $1\frac{2}{3}$ cups into a glass. How much lemonade remains in the pitcher?

A $2\frac{2}{3}$ cups

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

C $5\frac{3}{3}$ cups

D $5\frac{3}{6}$ cups

11 What is the value of the expression below?

$$2{,}816 \times 7$$

A   14,572

B   14,672

C   19,612

D   19,712

12 What is the quotient for the expression $2{,}314 \div 4$?

A   508

B   508 r2

C   578

D   578 r2

GO ON

13 A teacher buys the folders listed below.

- 5 boxes of red folders with 36 folders in each box

- 6 boxes of blue folders with 32 folders in each box

Which number is **closest** to the total number of red and blue folders that the teacher buys?

A   275

B   380

C   440

D   550

14 What number is 9 times as much as 400 ?

A   391

B   409

C   3,600

D   3,609

15 Which two numbers both round to 1,500 when rounded to the nearest hundred?

A   1,399 and 1,599

B   1,449 and 1,549

C   1,457 and 1,547

D   1,489 and 1,589

GO ON

16 Mr. Fuller wants to put fencing around his rectangular-shaped yard. The width of the yard is 55 feet and the length is 75 feet. How many feet of fencing does Mr. Fuller need?

A   130

B   260

C   3,905

D   4,125

17 Some students in Ms. Baker's class recorded their heights for four months. The line plot below shows how much each student grew by the end of the four months.

STUDENT GROWTH

Length (inches)
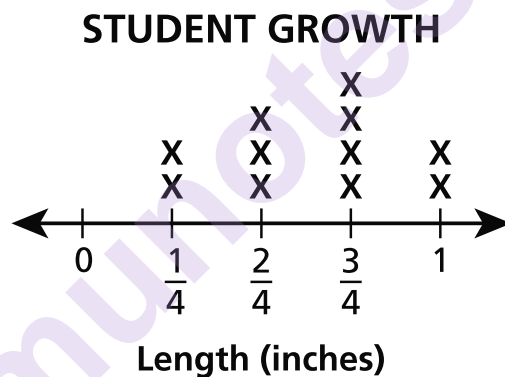
What is the difference in growth, in inches, between the students who grew the most and the students who grew the least?

A $\dfrac{1}{4}$

B $\dfrac{2}{4}$

C $\dfrac{3}{4}$

D   1

GO ON

Session 1

18 The value of the digit 9 in the number 29,461 is 10 times the value of the digit 9 in which number?

A   46,195

B   53,982

C   89,354

D   93,610

19 The number pattern below follows a rule.

    2, 8, 32, 128, . . .

Which number pattern follows the same rule?

A   4, 8, 12, 16, . . .

B   1, 4, 16, 64, . . .

C   3, 7, 11, 15, . . .

D   6, 12, 24, 48, . . .

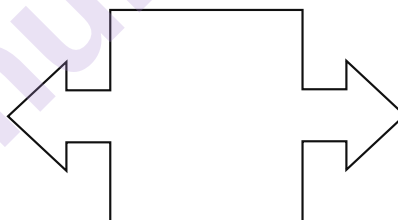**20** The three models below are each shaded to represent a different fraction.

What is the sum of the fractions represented by the shaded parts of the models?

A $\dfrac{10}{18}$

B $\dfrac{8}{10}$

C $\dfrac{10}{8}$

D $\dfrac{10}{6}$

21 What is the greatest number of lines of symmetry that can be drawn on the figure shown below?

A 0

B 1

C 2

D 4

GO ON

22 What is the measure, in degrees, of an angle that is equivalent to $\frac{1}{360}$ of a circle?

    A   1

    B   90

    C   180

    D   360

23 Which comparison statement describes the model below?

24

| 6 | 6 | 6 | 6 |
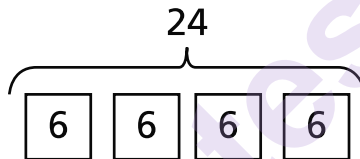
    A   6 is 24 times as many as 4

    B   24 is 4 times as many as 6

    C   4 times as many as 24 is 6

    D   6 times as many as 6 is 24

STOP

Grade 4
Mathematics Test
Session 1
v202

THE STATE EDUCATION DEPARTMENT
THE UNIVERSITY OF THE STATE OF NEW YORK / ALBANY, NY 12234
2021 Mathematics Tests Map to the Standards
Grade 4 Released Questions

Question	Type	Key	Points	Standard	Cluster	Subscore	Secondary Standard(s)
Session 1							
1	Multiple Choice	B	1	CCSS.Math.Content.4.NF.B.4c	Number and Operations - Fractions	Number and Operations - Fractions	
2	Multiple Choice	B	1	CCSS.Math.Content.4.OA.B.4	Operations and Algebraic Thinking	Operations and Algebraic Thinking	
3	Multiple Choice	A	1	CCSS.Math.Content.4.NF.A.2	Number and Operations - Fractions	Number and Operations - Fractions	
4	Multiple Choice	D	1	CCSS.Math.Content.4.OA.A.2	Operations and Algebraic Thinking	Operations and Algebraic Thinking	
5	Multiple Choice	A	1	CCSS.Math.Content.4.G.A.1	Geometry		
6	Multiple Choice	B	1	CCSS.Math.Content.4.OA.A.3	Operations and Algebraic Thinking	Operations and Algebraic Thinking	
7	Multiple Choice	B	1	CCSS.Math.Content.4.NF.A.1	Number and Operations - Fractions	Number and Operations - Fractions	
8	Multiple Choice	C	1	CCSS.Math.Content.4.MD.C.7	Measurement and Data		
9	Multiple Choice	B	1	CCSS.Math.Content.4.NF.A.2	Number and Operations - Fractions	Number and Operations - Fractions	
10	Multiple Choice	A	1	CCSS.Math.Content.4.NF.B.3c	Number and Operations - Fractions	Number and Operations - Fractions	
11	Multiple Choice	D	1	CCSS.Math.Content.4.NBT.B.5	Number and Operations in Base Ten	Number and Operations in Base Ten	
12	Multiple Choice	D	1	CCSS.Math.Content.4.NBT.B.6	Number and Operations in Base Ten	Number and Operations in Base Ten	
13	Multiple Choice	B	1	CCSS.Math.Content.4.OA.A.3	Operations and Algebraic Thinking	Operations and Algebraic Thinking	
14	Multiple Choice	C	1	CCSS.Math.Content.4.OA.A.1	Operations and Algebraic Thinking	Operations and Algebraic Thinking	
15	Multiple Choice	C	1	CCSS.Math.Content.4.NBT.A.3	Number and Operations in Base Ten	Number and Operations in Base Ten	
16	Multiple Choice	B	1	CCSS.Math.Content.4.MD.A.3	Measurement and Data		
17	Multiple Choice	C	1	CCSS.Math.Content.4.MD.B.4	Measurement and Data		
18	Multiple Choice	B	1	CCSS.Math.Content.4.NBT.A.1	Number and Operations in Base Ten	Number and Operations in Base Ten	
19	Multiple Choice	B	1	CCSS.Math.Content.4.OA.C.5	Operations and Algebraic Thinking	Operations and Algebraic Thinking	
20	Multiple Choice	D	1	CCSS.Math.Content.4.NF.B.3a	Number and Operations - Fractions	Number and Operations - Fractions	
21	Multiple Choice	C	1	CCSS.Math.Content.4.G.A.3	Geometry		
22	Multiple Choice	A	1	CCSS.Math.Content.4.MD.C.5a	Measurement and Data		
23	Multiple Choice	B	1	CCSS.Math.Content.4.OA.A.1	Operations and Algebraic Thinking	Operations and Algebraic Thinking	

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.