



New York State  
**EDUCATION DEPARTMENT**  
Knowledge > Skill > Opportunity

**New York State Testing Program**  
**Grade 3**  
**Mathematics Test**  
**(Korean)**

**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.

## ***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.

### **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>.

이름: \_\_\_\_\_



*Korean Edition*  
*Grade 3*  
*Mathematics Test*  
*Session 1*  
*v202*

뉴욕주 시험 프로그램  
수학 시험  
세션 1

**3**학년

v202



**Released Questions**

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# 세션 1



## 시험 관련 도움말

다음은 자신의 실력을 최고로 발휘하는 데 도움이 되는 아이디어들입니다.

- 각 문제를 자세히 읽고 답을 선택하기 전에 잘 생각해 보십시오.
- 시험 중에 사용하도록 자를 제공해 드렸습니다. 문제를 푸는 데 도움이 될 것이라고 생각될 때마다 이 자를 사용하십시오.

1 다음 중  $8 \times 6$ 을 다른 방식으로 나타낸 수식은?

A  $(2 + 4) + 6$

B  $(2 + 4) \times 6$

C  $(2 \times 4) + 6$

D  $(2 \times 4) \times 6$

2 시카고에서 뉴욕까지의 거리는 794마일입니다. 794를 가장 가까운 100 단위 수로 반올림하면 얼마인가요?

A 700

B 794

C 800

D 894

3 다음 방정식에 어떤 숫자가 들어가야 맞을까요?

$$4 = \underline{\quad ? \quad} \div 7$$

A 11

B 21

C 28

D 32

계속

4 다음 중  $\frac{4}{6}$  와 동등한 값의 분수는?

A  $\frac{1}{2}$

B  $\frac{2}{3}$

C  $\frac{3}{4}$

D  $\frac{6}{8}$

5 3학년 학생들이 세차를 하고 있습니다. 학생들은 그림과 같이 각 양동이에 똑같은 양의 물을 넣습니다.



다음 중 모든 양동이에 있는 물을 합한 양이 몇 갤런인지 구하는 데 사용할 수 있는 수식은?

A  $4 \times 3$

B  $5 \times 3$

C  $4 \times 4$

D  $5 \times 4$



6 정사각형 종이 30장이 겹치지도 틈이 뜨지도 않게 완전히 덮을 수 있는 게시판이 있습니다. 종이의 각 변이 1피트라면 게시판의 총 면적은 얼마일까요?

- A 1 피트
- B 30 피트
- C 1 제곱피트
- D 30 제곱피트

7 선생님이 종이 클립 16개가 담긴 상자와 48개가 담긴 상자를 하나씩 갖고 있습니다. 선생님은 종이 클립을 모두 꺼내어 8개 뭉치로 동등하게 분리합니다. 각 뭉치에는 종이 클립이 몇 개씩 있을까요?

- A 6
- B 8
- C 24
- D 64

8 아래 방정식이 맞으려면 어느 숫자가 들어가야 될까요?

$$80 \times 7 = \underline{\quad ? \quad}$$

- A 56
- B 87
- C 150
- D 560

계속

9 다음 두 방정식에 어떤 숫자가 들어가야 참이 될까요?

$$9 \times \underline{\quad ? \quad} = 45$$

$$45 \div 9 = \underline{\quad ? \quad}$$

- A 4
- B 5
- C 7
- D 8

10 한 학생이 야구 카드 72장을 수집해서 가지고 있습니다. 이 카드를 모두 앨범에 보관하는데, 앨범 각 페이지마다 8장씩 카드를 넣습니다. 다음 중 이 학생의 앨범에서 야구 카드가 들어 있는 페이지가 총 몇 페이지인지 구하는 데 사용할 수 있는 수식은?

- A  $72 + 8$
- B  $72 - 8$
- C  $72 \times 8$
- D  $72 \div 8$

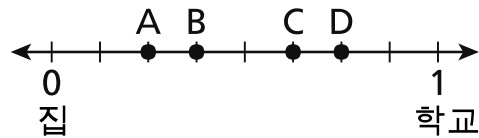
11 엠마와 5명의 어린이들이 큰 직사각형 테이블을 동등하게 사용하고 있습니다. 다음 중 각 어린이가 사용하는 테이블 면적을 분수로 나타낸 것은?

- A  $\frac{1}{6}$
- B  $\frac{1}{5}$
- C  $\frac{1}{4}$
- D  $\frac{1}{2}$

12 조와 마이크는 같은 경주에서 달렸습니다. 조는 마이크보다 4분 먼저 경주를 마쳤습니다. 마이크가 오후 4:02에 경기를 마쳤다면 조는 몇 시에 경기를 마쳤을까요?

- A 오후 3:58
- B 오후 4:06
- C 오후 8:02
- D 오후 12:02

13 리암의 집에서 학교까지의 거리는 아래 수직선에 표시된 것처럼 정확히 1마일입니다.



리암은 집에서  $\frac{3}{8}$ 마일 떨어진 곳에 있는 가게에서 간식을 구입합니다. 수직선의 어느 점이 이 가게의 위치를 보여줍니까?

- A 점 A
- B 점 B
- C 점 C
- D 점 D

계속

14 양동이에 물 풍선 54개가 들어 있습니다. 풍선을 9개의 팀에게 나누어 줍니다. 각 팀에 나누어 주는 풍선의 수는 똑같습니다. 각 팀은 물 풍선 몇 개씩 갖게 될까요?

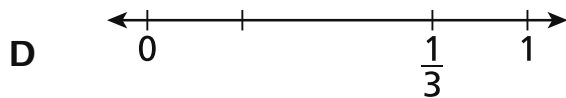
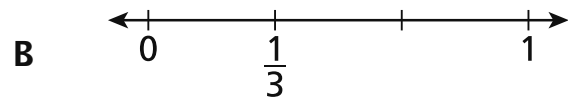
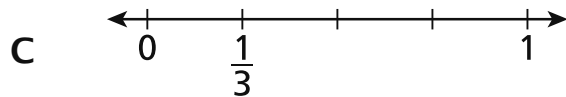
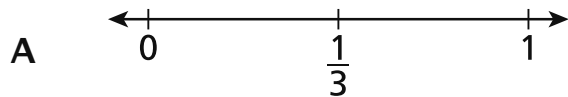
- A 6
- B 7
- C 45
- D 63

15 아래 숫자 패턴에 사용된 규칙은 무엇일까요?

64, 32, 16, 8, 4, 2, ...

- A 2를 더하기
- B 2를 빼기
- C 2로 나누기
- D 2를 곱하기

16 다음 중 어느 수직선이 분수  $\frac{1}{3}$ 을 정확히 표시한 것입니까?



17 가게에 큰 어항이 8개 있고 각 어항에는 물이 40리터가 들어 있습니다. 그 모든 큰 어항들에 있는 물을 합치면 총 몇 리터일까요?

- A 5
- B 48
- C 280
- D 320

18 폴은 지난주 중 매일 쿠키를 2개씩 5일 동안 먹었습니다. 이번 주에는 매일 쿠키 2 개를 4일 동안 먹었습니다. 다음 중 폴이 2주 동안 먹은 쿠키의 총 수를 나타내는 데 사용할 수 있는 수식은?

- A  $2 \times (5 \times 4)$
- B  $2 \times (5 + 4)$
- C  $(2 \times 5) \times (2 \times 4)$
- D  $(2 + 5) \times (2 + 4)$

계속

**19**

케이와 후아니타의 정원의 크기와 모양은 같습니다.

- 케이는 정원의  $\frac{1}{6}$ 에 꽃을 키웁니다.
- 후아니타는 정원의  $\frac{1}{3}$ 에 꽃을 키웁니다.

다음 중 케이의 정원과 후아니타의 정원에서 꽃이 자라는 면적을 올바르게 비교한 설명은?

- A**  $\frac{1}{6} > \frac{1}{3}$
- B**  $\frac{1}{6} < \frac{1}{3}$
- C**  $\frac{1}{3} = \frac{1}{6}$
- D**  $\frac{1}{3} + \frac{1}{6}$

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**3학년**  
수학 시험  
세션 1  
v202

**Grade 3**  
**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 3 Released Questions**

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

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.