

2019 Mathematics Test Session 1



May 1-3, 2019

RELEASED QUESTIONS

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Session 1

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 a ruler to use during the test. Use the ruler whenever you think it will help you to answer the question.





Which expression can be used to find the product represented by the array?

A 4+3

- **B** 4+4+4+4
- **C** 3 × 4
- **D** $3 \times 3 \times 3 \times 3$
- 2 Lucy is counting by 2s. She starts with the number 2 and stops at the number 50. Which number would Lucy **not** count?
 - **A** 11
 - **B** 22
 - **C** 34
 - **D** 48
- **3** Ms. Carter has 30 students in her classroom. She arranges them into 5 equal groups. Which expression represents how to find the number of students in each group?

GO ON

- **A** 30 + 5
- **B** 30 ÷ 5
- **C** 30 − 5
- **D** 30 × 5

1

6 Jess scored 18 points during her last basketball game. Each basket she made was worth 2 points. How many baskets did she make?

A 20

В

С

16

9

- **D** 8
- 7 A librarian receives two boxes of books for the library. The first box has 136 books. The second box has 58 fewer books than the first box. What is the total number of books the librarian receives?
 - A 58
 - **B** 78
 - **C** 194
 - **D** 214

8

Which two fractions should be plotted at the same location on a number line?

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A $\frac{3}{4}$ and $\frac{4}{8}$ **B** $\frac{1}{4}$ and $\frac{2}{8}$ **C** $\frac{2}{4}$ and $\frac{4}{6}$ **D** $\frac{1}{2}$ and $\frac{2}{6}$

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Session 1

15 The figure below represents a floor covered with white tiles and gray tiles.



Which expression could be used to find the area, in square units, of the entire floor?

- **A** $(12+7) \times (12+7)$ **C** $(10+7) \times (2+7)$
- **B** $(12 \times 7) + (12 \times 7)$ **D** $(10 \times 7) + (2 \times 7)$

16 Which expression is equivalent to $(5+2) \times 8$?

- **A** $(8 \times 5) + (8 \times 2)$
- **B** $(5 \times 8) + (5 \times 2)$
- \mathbf{C} 8 × (5 × 2)
- **D** $(5 \times 8) \times 2$

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Which equation is true when the missing number is the number 7?

 $\mathbf{A} \qquad 7 \times \underline{?} = 42$

21

- **B** 7 × <u>?</u> = 49
- $\mathbf{C} \qquad 8 \times \underline{?} = 40$
- **D** $8 \times _? = 48$
- A number is rounded to the nearest hundred. The result is 500. Which number could **not** be the number before it was rounded to the nearest hundred?
 - A 458
 - **B** 463
 - **C** 547
 - **D** 559

23 ^V

- Which statement is true?
- A The product of 5×2 is even because both of the factors are even.
- **B** The product of 4×4 is odd because both of the factors are even.
- **C** The product of 2×7 is even because both of the factors are odd.
- **D** The product of 5×3 is odd because both of the factors are odd.

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Grade 3 2019 Mathematics Test Session 1 May 1–3, 2019



2019 Mathematics Test Session 2



May 1-3, 2019

RELEASED QUESTIONS

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Session 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 making your choice or writing your response.
- You have been provided with a ruler to use during the test. Use the ruler whenever you think it will help you to answer the question.
- Be sure to show your work when asked.

The shape below is shaded to represent a fraction.



Which shape is shaded to represent a fraction equivalent to the shape shown above?



27 A store manager orders shirts from their warehouse. The shirts are packed into boxes and sent to the store, as described below.

- 81 shirts are ordered
- each shipping box holds 9 shirts

How many shipping boxes are needed for all of the shirts ordered?

A 8

26

- **B** 9
- **C** 72
- **D** 90

Page 2

Session 2

GO ON

28 Leeza used unit squares to find the area of the rectangle shown below.



What is the area, in square units, of the rectangle?

- **A** 16
- **B** 20
- **C** 24
- **D** 28



29 The students in Mr. Gazer's class are collecting cans for recycling. The bar graph below shows the number of cans they collected for each of three days.



CANS COLLECTED

How many more cans were collected on Wednesday than on Friday?

- **A** 15
- **B** 20
- **C** 25
- **D** 45

30 In which situation can the expression $64 \div 8$ be used?

- A There are 8 buses with 64 students on each bus.
- **B** Ms. Vance has 8 pens and 64 pencils in a container.
- **C** There are 64 books in a bookcase and 8 books are removed.
- **D** Mr. Juarez has 64 cups and puts an equal number on each of 8 tables.

GO ON

Session 2



What is the total area, in square units, of the figure?

A 17

31

- **B** 20
- **C** 22
- **D** 32

32 Which expression is equivalent to 4×9 ?

- **A** $(4 \times 4) + (4 \times 5)$
- **B** $(4+4) \times (4+5)$
- **C** (4+4) + (4+5)
- $\textbf{D} \qquad (4\times4)\times(4\times5)$

- **33** Coach Wu has a total of 30 soccer balls.
 - 9 soccer balls are white
 - the remaining soccer balls are one of three different colors (blue, pink, or green)
 - there is an equal number of blue, pink, and green balls

How many green soccer balls does Coach Wu have?

- **A** 7
- **B** 10
- **C** 21
- **D** 39



Wyatt wants to solve the equation below to find the missing factor.

8 × _?_ = 24

How can Wyatt find the missing factor by changing the equation to a division problem? Be sure to include the value of the missing factor in your answer.

Explain your answer.

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34

35 Two families buy large sandwiches of the same size. Family A shares one sandwich equally among 4 people, as represented in the picture below.



Family B shares one sandwich equally between 2 people.

Will a person from Family A get the same amount or a different amount of a sandwich as a person from Family B? Be sure to include what you know about fractions or parts of a whole in your answer.

Explain your answer.

GO ON

- Suzy made cupcakes for her friends. She started at 2:40 p.m. The list below shows the number of minutes it took to complete each step of the process.
 - 9 minutes to mix the batter
 - 18 minutes to bake the cupcakes
 - 5 minutes to let them cool
 - 10 minutes to frost the cupcakes

What time did Suzy finish frosting the cupcakes?

Show your work.

Answer ______p.m.

36

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Session 2

37 Ashlynn rides her bike 2 miles to school and 2 miles home each day. How many total miles will Ashlynn ride her bike to school and home in 40 days?

Show your work.

Answer _____ miles

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GO ON

Two figures are shown below.

38



What is the difference, in square feet, between the area of Figure A and the area of Figure B?

Explain how you found your answer.

GO ON Page 11 Gianna cuts a ribbon into equal pieces as shown below.



She uses 4 pieces of the ribbon for a project. What fraction of the ribbon does Gianna use for the project?

Explain how you found your answer.

39



40 Ms. Ross is making breakfast for her family. She makes 15 small pancakes to share equally among 3 people. How many small pancakes will each person get?

Show your work.

Answer _____ pancakes

Ms. Ross also wants to give each person a glass of orange juice. If each person gets 8 ounces, how many total ounces of orange juice does she need?

Show your work.

Answer _____ ounces

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Grade 3 2019 Mathematics Test Session 2 May 1–3, 2019

THE STATE EDUCATION DEPARTMENT

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

2019 Mathematics Tests Map to the Standards

Grade 3 Released Questions on EngageNY

						Multiple Choice Questions: Constructed Response Questions:		
Question	Туре	Кеу	Points	Standard	Cluster	Percentage of Students Who Answered Correctly (P-Value)	Average Points Earned	P-Value (Average Points Earned ÷ Total Possible Points)
Session 1								
1	Multiple Choice	С	1	CCSS.Math.Content.3.OA.A.1	Operations and Algebraic Thinking	0.90		
2	Multiple Choice	А	1	CCSS.Math.Content.3.OA.D.9	Operations and Algebraic Thinking	0.81		
3	Multiple Choice	В	1	CCSS.Math.Content.3.OA.A.2	Operations and Algebraic Thinking	0.81		
6	Multiple Choice	С	1	CCSS.Math.Content.3.OA.A.3	Operations and Algebraic Thinking	0.70		
7	Multiple Choice	D	1	CCSS.Math.Content.3.OA.D.8	Operations and Algebraic Thinking	0.35		
8	Multiple Choice	В	1	CCSS.Math.Content.3.NF.A.3a	Number and Operations - Fractions	0.59		
15	Multiple Choice	D	1	CCSS.Math.Content.3.MD.C.7c	Measurement and Data	0.56		
16	Multiple Choice	А	1	CCSS.Math.Content.3.OA.B.5	Operations and Algebraic Thinking	0.48		
21	Multiple Choice	В	1	CCSS.Math.Content.3.OA.A.4	Operations and Algebraic Thinking	0.70		
22	Multiple Choice	D	1	CCSS.Math.Content.3.NBT.A.1	Number and Operations in Base Ten	0.45		
23	Multiple Choice	D	1	CCSS.Math.Content.3.OA.D.9	Operations and Algebraic Thinking	0.59		
Session 2								
26	Multiple Choice	С	1	CCSS.Math.Content.3.NF.A.3b	Number and Operations - Fractions	0.84		
27	Multiple Choice	В	1	CCSS.Math.Content.3.OA.A.3	Operations and Algebraic Thinking	0.77		
28	Multiple Choice	С	1	CCSS.Math.Content.3.MD.C.5b	Measurement and Data	0.93		
29	Multiple Choice	С	1	CCSS.Math.Content.3.MD.B.3	Measurement and Data	0.67		
30	Multiple Choice	D	1	CCSS.Math.Content.3.OA.A.2	Operations and Algebraic Thinking	0.69		
31	Multiple Choice	С	1	CCSS.Math.Content.3.MD.C.7d	Measurement and Data	0.34		

32	Multiple Choice	А	1	CCSS.Math.Content.3.OA.B.5	Operations and Algebraic	0.70		
					Thinking			
33	Multiple Choice	А	1	CCSS.Math.Content.3.OA.D.8	Operations and Algebraic	0.48		
					Thinking			
34	Constructed Response		2	CCSS.Math.Content.3.OA.B.6	Operations and Algebraic		1.20	0.60
					Thinking			
35	Constructed Response		2	CCSS.Math.Content.3.NF.A.3d	Number and Operations -		0.78	0.39
					Fractions			
36	Constructed Response		2	CCSS.Math.Content.3.MD.A.1	Measurement and Data		1.06	0.53
37	Constructed Response		2	CCSS.Math.Content.3.NBT.A.3	Number and Operations in		0.97	0.49
					Base Ten			
38	Constructed Response		2	CCSS.Math.Content.3.MD.C.6	Measurement and Data		0.83	0.41
-	•				Number and Operations		1 10	0.50
39	Constructed Response		2	CCSS.Math.Content.3.NF.A.1	Number and Operations -		1.19	0.59
					Fractions			
40	Constructed Response		3	CCSS.Math.Content.3.OA.A.3	Operations and Algebraic		2.03	0.68
					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.