

# 2019 Mathematics Test Session 1



May 1-3, 2019

## **RELEASED QUESTIONS**

Г

Developed and published under contract with the New York State Education Department by Questar Assessment Inc., 5550 Upper 147th Street West, Minneapolis, MN 55124. Copyright © 2019 by the New York State Education Department.

### Session 1

-----

### **Grade 5 Mathematics Reference Sheet**

#### **CONVERSIONS**

1 mile = 5,280 feet	1  pound = 16  ounces	1  cup = 8  fluid ounces
1 mile = 1,760 yards	1  ton = 2,000  pounds	1  pint = 2  cups
		1  quart = 2  pints
		1 gallon = 4 quarts
		1 liter = 1,000 cubic centimeters

#### FORMULAS

**Right Rectangular Prism** 

V = Bh or V = Iwh

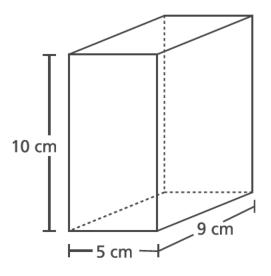


#### TIPS FOR TAKING THE TEST

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) 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.

A gift box is in the shape of a right rectangular prism, as pictured below.



What is the volume, in cubic centimeters, of the gift box?

**A** 24

- **B** 45
- C 225
- D 450

2 What is the sum of  $\frac{2}{10} + \frac{6}{100}$ ?

$$A = \frac{8}{10}$$
$$B = \frac{8}{100}$$
$$C = \frac{26}{10}$$
$$D = \frac{26}{100}$$

Session 1

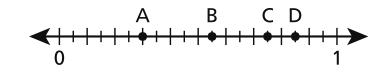
GO ON

**3** On Saturday, Mark sold  $2\frac{7}{8}$  gallons of lemonade. On the same day, Regan sold  $\frac{2}{3}$  as much lemonade as Mark. How much lemonade, in gallons, did Regan sell?

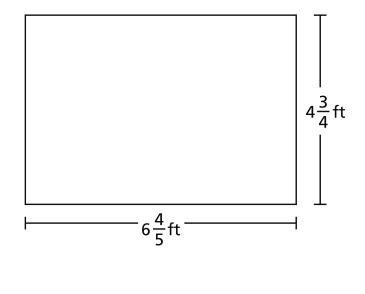
**A** 
$$1\frac{5}{16}$$
  
**B**  $1\frac{11}{12}$   
**C**  $2\frac{7}{12}$   
**D**  $4\frac{5}{16}$ 

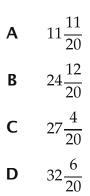
4

Which point on the number line below represents a value of 0.75?



- A point A
- **B** point B
- C point C
- D point D





GO ON Page 7



**18** Which expression **cannot** be used to determine the volume of the rectangular prism pictured below?

7	7	7	7	7	
					ШI
					Ш

- **A** 12 × 6
- **B** 18 × 4
- $\mathbf{C} \qquad 6 \times 3 \times 4$
- $\mathbf{D} = 6 \times 4 \times 6$

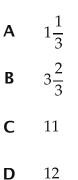
19 What is 15.74 rounded to the nearest whole number?

- **A** 10
- **B** 15
- **C** 16
- **D** 20

GO ON

-----

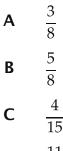
20 Jack puts  $\frac{1}{3}$  pound of birdseed into his bird feeder every time he fills it. How many times can Jack fill his bird feeder with 4 pounds of birdseed?



21 Carlos makes 1 pound of snack mix using nuts, raisins, and cereal. The list below shows how many pounds of nuts and raisins he uses.

<sup>1</sup>/<sub>3</sub> pound of nuts
<sup>2</sup>/<sub>5</sub> pound of raisins

How much cereal, in pounds, does Carlos use?



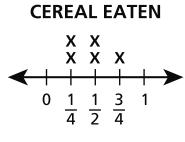
**D**  $\frac{11}{15}$ 

- **26** What is the value of the expression  $\frac{1}{7} \div 5$ ?
  - **A**  $\frac{1}{12}$  **B**  $\frac{1}{35}$ **C**  $\frac{5}{7}$
  - **D**  $\frac{6}{7}$
- 27 Cole has a rectangular garden with an area of 16.02 square meters. The length of the garden is 4.5 meters. What is the width, in meters, of the garden?
  - A 3.56
  - **B** 11.52
  - **C** 16.12
  - **D** 20.52
- **28** A school raised a total of \$1,648 to purchase new books. The money raised will be shared equally among 8 different classrooms. What is the total amount of money each classroom will receive?

GO ON

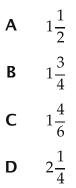
- A \$206
- **B** \$207
- **C** \$260
- **D** \$270

The line plot below shows the amount of cereal Shyanne ate in 5 days.



Amount (cups)

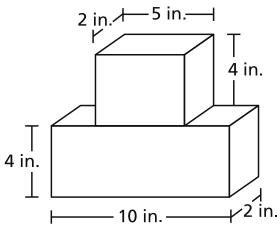
What is the total number of cups of cereal that Shyanne ate in the 5 days?



----



Lana used the two blocks pictured in the diagram to build a tower.



LANA'S TOWER

What is the total volume, in cubic inches, of the tower Lana built?

**A** 27

30

- **B** 80
- **C** 116
- **D** 120



STO

P

# **Grade 5** 2019 Mathematics Test Session 1 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 5 Released Questions on EngageNY

Question Type										
					Multiple Choice Questions:	Constructed Response Questions:				
	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	D	1	CCSS.Math.Content.5.MD.C.5b	Measurement and Data	0.86				
2	Multiple Choice	D	1	CCSS.Math.Content.4.NF.C.5	Number and Operations - Fractions	0.68				
3	Multiple Choice	В	1	CCSS.Math.Content.5.NF.B.6	Number and Operations - Fractions	0.39				
4	Multiple Choice	С	1	CCSS.Math.Content.4.NF.C.6	Number and Operations in Base Ten	0.69				
13	Multiple Choice	D	1	CCSS.Math.Content.5.NF.B.4b	Number and Operations - Fractions	0.35				
18	Multiple Choice	D	1	CCSS.Math.Content.5.MD.C.5a	Measurement and Data	0.61				
19	Multiple Choice	С	1	CCSS.Math.Content.5.NBT.A.4	Number and Operations in Base Ten	0.74				
20	Multiple Choice	D	1	CCSS.Math.Content.5.NF.B.7c	Number and Operations - Fractions	0.53				
21	Multiple Choice	С	1	CCSS.Math.Content.5.NF.A.2	Number and Operations - Fractions	0.48				
26	Multiple Choice	В	1	CCSS.Math.Content.5.NF.B.7a	Number and Operations - Fractions	0.7				
27	Multiple Choice	А	1	CCSS.Math.Content.5.NBT.B.7	Number and Operations in Base Ten	0.4				
28	Multiple Choice	А	1	CCSS.Math.Content.5.NBT.B.6	Number and Operations in Base Ten	0.77				
29	Multiple Choice	D	1	CCSS.Math.Content.5.MD.B.2	Measurement and Data	0.59				
30	Multiple Choice	D	1	CCSS.Math.Content.5.MD.C.5c	Measurement and Data	0.71				
Session 2										
31	Multiple Choice	В	1	CCSS.Math.Content.5.G.B.3	Geometry	0.71				
32	Multiple Choice	D	1	CCSS.Math.Content.5.NF.A.1	Number and Operations - Fractions	0.74				
33	Multiple Choice	В	1	CCSS.Math.Content.4.MD.A.1	Measurement and Data	0.41				
34	Multiple Choice	D	1	CCSS.Math.Content.5.NF.A.1	Number and Operations - Fractions	0.74				