



New York State
EDUCATION DEPARTMENT
Knowledge > Skill > Opportunity

**New York State Testing Program
Grade 5
Mathematics Test
Chinese (Traditional)**

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>.

在本考試中，嚴禁持有或使用任何形式的通訊工具。如果你持有或使用了任何的通訊工具，無論多短暫，你的考試都將無效，並且不會得到任何分數。

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5年級數學參考資料

換算

1英里 = 5,280英尺

1英里 = 1,760碼

1磅 = 16盎司

1噸 = 2,000磅

1杯 = 8液盎司

1品脫 = 2杯

1夸脫 = 2品脫

1加侖 = 4夸脫

1升 = 1,000立方釐米

公式

長方體

$$V = Bh \text{ 或 } V = lwh$$



第 1 卷



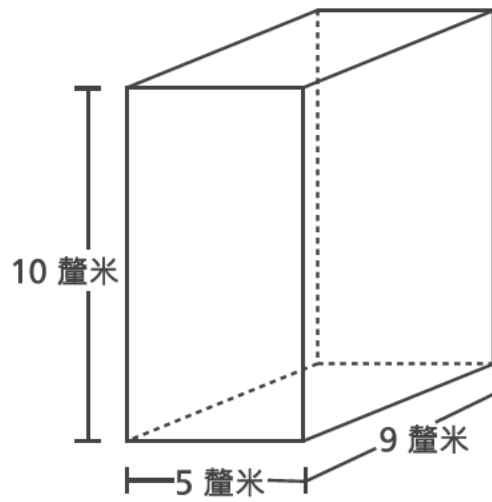
考試建議

以下建議可協助你獲得好成績：

- 在作出選擇之前，請仔細閱讀每一試題，好好思考後再作答。
- 本次考試提供數學工具（一把尺子和一個量角器）和一張參考資料讓你使用。你可以自行決定使用各個工具和參考資料的時機。考試當中只要你覺得使用數學工具和參考資料能協助你解答就可以使用。

1

禮品盒呈矩形棱柱形，如下圖所示。



禮品盒的體積是多少立方釐米？

- A 24
- B 45
- C 225
- D 450

2 $\frac{2}{10} + \frac{6}{100}$ 的和是多少？

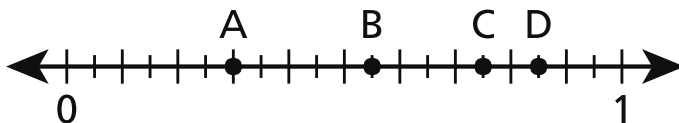
- A $\frac{8}{10}$
- B $\frac{8}{100}$
- C $\frac{26}{10}$
- D $\frac{26}{100}$

繼續

3 星期六，馬克賣了 $2\frac{7}{8}$ 加侖檸檬水。在同一天，雷根的銷售量是馬克的 $\frac{2}{3}$ 。雷根賣出了多少加侖檸檬水？

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

4 下面數軸上的哪一點代表值 0.75？



- A 點 A
- B 點 B
- C 點 C
- D 點 D

5

以下哪個比較是正確的？

A $2.919 > 2.94$

B $0.99 < 0.569$

C $1.27 > 1.189$

D $3.861 < 3.75$

6

貝蒂有 3 隻貓和 4 隻狗。她每天兩次給它們各餵一勺食物。請問哪個表達式可用於計算貝蒂在一天內給寵物餵了多少勺食物？

A $(2 \times 3) \times 4$

B $(2 \times 3) + 4$

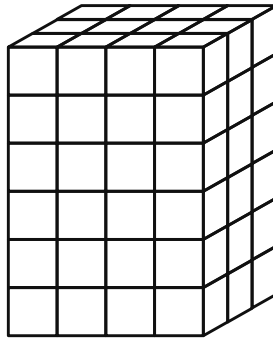
C $2 + (3 + 4)$

D $2 \times (3 + 4)$

繼續

7

下面是一個填充有單位立方體的矩形棱柱圖。每個單位立方體的邊長為 1 英尺。



這個矩形棱柱的體積是多少立方英尺？

- A 12
- B 13
- C 54
- D 72

8

請問以下表達式的值是多少？

$$[(3 \times 4) - 6] + 4 \times 2$$

- A 4
- B 14
- C 20
- D 30

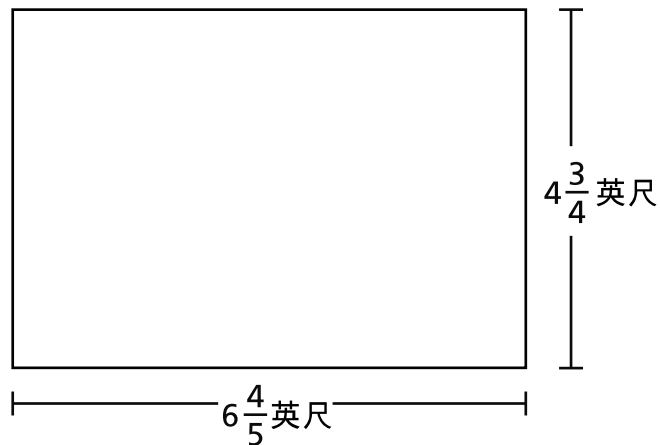
9

里德女士將油和醋混在一起來製作沙拉醬。她將 8 液量盎司油和 3 液量盎司醋混合在一起，製作一批沙拉醬。里德女士製作了 3 批沙拉醬。請問她一共製作了多少杯沙拉醬？

- A $1\frac{3}{8}$ 杯
- B $2\frac{1}{16}$ 杯
- C $2\frac{3}{4}$ 杯
- D $4\frac{1}{8}$ 杯

10

下圖所示矩形的面積是多少平方英尺？



- A $11\frac{11}{20}$
- B $24\frac{12}{20}$
- C $27\frac{4}{20}$
- D $32\frac{6}{20}$

繼續

11

埃德週六徒步 3 公里，週日游泳 2 公里。週六和週日埃德徒步和游泳總共多少米？

- A 50
- B 500
- C 5,000
- D 50,000

12

哪個表達式可用於計算下面顯示的表達式的值？

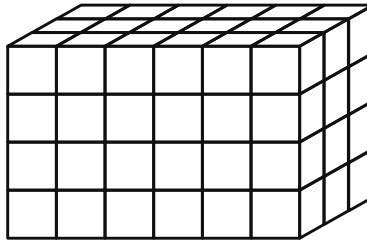
$$1,284 \div 4$$

- A $(1,200 \div 4) \times (84 \div 4)$
- B $(1,200 \div 4) \div (84 \div 4)$
- C $(1,200 \div 4) + (84 \div 4)$
- D $(1,200 \div 4) - (84 \div 4)$

繼續

13

哪個表達式不能用於確定下圖所示的矩形棱柱的體積？



- A 12×6
- B 18×4
- C $6 \times 3 \times 4$
- D $6 \times 4 \times 6$

14

15.74 四捨五入到最接近的整數是多少？

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

繼續

15 傑克在每次填充時都會將 $\frac{1}{3}$ 磅鳥食放入他的餵鳥器中。傑克用 4 磅鳥食可填充他的餵鳥器多少次？

- A $1\frac{1}{3}$
- B $3\frac{2}{3}$
- C 11
- D 12

16 卡洛斯使用堅果、葡萄乾和麥片製作 1 磅零食拼盤。下面的清單顯示了他使用的堅果和葡萄乾的重量。

- $\frac{1}{3}$ 磅堅果
- $\frac{2}{5}$ 磅葡萄乾

卡洛斯用了多少磅麥片？

- A $\frac{3}{8}$
- B $\frac{5}{8}$
- C $\frac{4}{15}$
- D $\frac{11}{15}$

17 塔拉住在距離公園 $\frac{3}{4}$ 英里的地方。尼吉爾居住的地方與公園的距離是塔拉居住的地方與公園距離的 $6\frac{2}{3}$ 倍。尼吉爾居住的地方距離公園有多少英里？

A 2

B 5

C $5\frac{1}{6}$

D $8\frac{8}{9}$

18 哪個陳述描述了表達式 $5 \times \frac{1}{2}$ 的乘積？

A 它小於 $\frac{1}{2}$ 。

B 它大於 5。

C 它介於 5 和 6 之間。

D 它介於 $\frac{1}{2}$ 和 5 之間。

繼續

19 請問表達式 $\frac{1}{7} \div 5$ 的值是多少？

A $\frac{1}{12}$

B $\frac{1}{35}$

C $\frac{5}{7}$

D $\frac{6}{7}$

20 科爾有一個長方形的花園，面積為 16.02 平方米。花園的長度為 4.5 米。請問花園的寬度是多少米？

A 3.56

B 11.52

C 16.12

D 20.52

21 學校共籌集了 \$1,648 購買新書。籌集的金錢將在 8 個不同的教室中平分。請問每間教室將獲得的總金額是多少？

A \$206

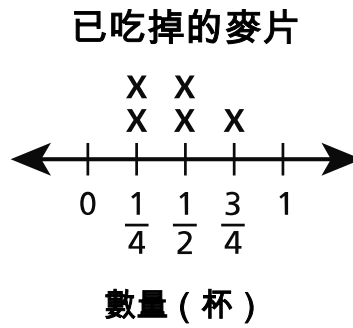
B \$207

C \$260

D \$270

繼續

下面的分佈點線圖顯示莎安 5 天內所吃麥片的數量。

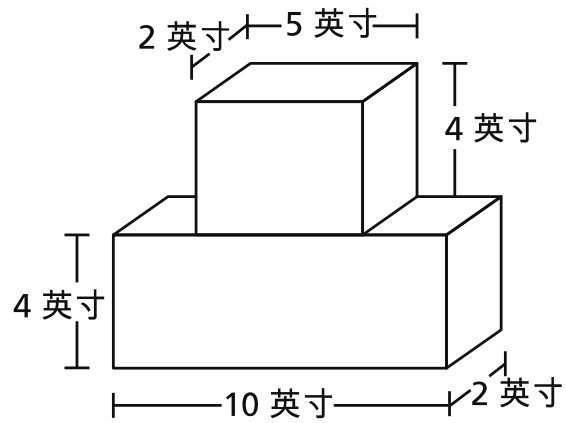


莎安在這 5 天所吃的麥片總共是多少杯？

- A $1\frac{1}{2}$
- B $1\frac{3}{4}$
- C $1\frac{4}{6}$
- D $2\frac{1}{4}$

23

拉娜使用圖中所示的兩個方塊來建造一座塔樓。



拉娜的塔樓

拉娜建造的塔樓總體積是多少立方英寸？

- A 27
- B 80
- C 116
- D 120

停止作答

5 年級
數學考試
第 1 卷
v202

Grade 5
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 5 Released Questions

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

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.