New York State
EDUCATION DEPARTMENT
Knowledge › Skill › Opportunity

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

Released Questions

2024

New York State administered the Mathematics Tests in May 2024 and is making approximately 75% of the questions from these tests available for review and use.

New York State Testing Program
Grades 3–8 Mathematics

Released Questions from 2024 Exams

Background

As in past years, SED is releasing large portions of the 2024 NYS Grades 3–8 English Language Arts and Mathematics test materials for review, discussion, and use.

For 2024, included in these released materials are at least 75 percent of the test questions that appeared on the 2024 tests (including all constructed-response questions) that counted toward students' scores. Additionally, SED is also providing a map that details what 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 the New York State Education Department's expectations for students.

Understanding Math Questions

Multiple-Choice Questions

Multiple-choice questions are designed to assess the New York State P–12 Next Generation 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.

One-Credit Constructed-Response Questions

One-credit constructed-response questions require students to complete a task and provide only their final answer. These one-credit questions will often require multiple steps, assessing procedural skills, as well as conceptual understanding and application. While students may show how they arrived at their final answer, only the final answer will be scored.

Two-Credit Constructed-Response Questions

Two-credit constructed-response questions require students to complete tasks and show their work. These two-credit response questions will often require multiple steps, the application of multiple mathematics skills, and real-world applications. Many of the short-response questions will cover conceptual and application standards.

Three-Credit Constructed-Response Questions

Three-credit constructed-response questions ask students to show their work in completing two or more tasks or a more extensive problem. These three-credit response questions allow students to show their understanding of mathematical procedures, conceptual understanding, and application. Three-credit response questions may also assess student reasoning and the ability to critique the arguments of others. The scoring rubric for all constructed-response questions can be found in the grade-level Educator Guides at http://www.nysed.gov/state-assessment/grades-3-8-ela-and-math-test-manuals.

New York State P–12 Next Generation Learning Standards Alignment

The alignment(s) to the New York State P–12 Next Generation Learning Standards for Mathematics is/are 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 procedure and conceptual understanding. For example, two-credit and three-credit constructed-response questions require students to show an understanding of mathematical procedures, concepts, and applications.

These Released Questions Do Not Comprise a "Mini Test"

To ensure it is possible to develop future tests, some content must remain secure. This document is *not* intended to be representative of the entire test, to show how operational tests look, or to provide information about how teachers should administer the test; rather, its purpose is to provide an overview of how the test reflects the demands of the New York State P–12 Next Generation Learning Standards.

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.

姓名：_____

Chinese (Traditional) Edition

Grade 5 2024

Mathematics Test

Session 1

Spring 2024

紐約州測驗計劃
數學考試
第 1 卷

5年級

2024 年春季

RELEASED QUESTIONS

Developed and published under contract with the New York State Education Department by NWEA, a division of HMH, 14720 Energy Way, Apple Valley, MN 55124.

第 1 卷

應考建議

以下是一些建議，可以幫助你做到最好：

- 仔細閱讀每道題目。慢慢來，別著急。
- 你已獲得了一把尺子、一個量角器和一張參考表，如果它們對你答題有幫助，你可以在測試中使用。

1 卡洛斯週六走了 3.65 公里，週日走了 1.46 公里。卡洛斯週六和週日總共走了多少公里？

A 2.19

B 2.29

C 5.01

D 5.11

2 哪個運算式等於 $5 \times \frac{3}{4}$？

A $\frac{5}{1} + \frac{3}{4}$

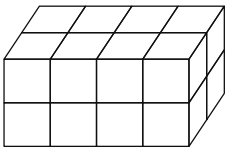
B $\frac{5}{1} - \frac{3}{4}$

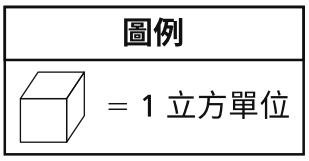
C $\frac{3}{4} + \frac{3}{4} + \frac{3}{4} + \frac{3}{4} + \frac{3}{4}$

D $\frac{3}{4} \times \frac{3}{4} \times \frac{3}{4} \times \frac{3}{4} \times \frac{3}{4}$

繼續

3 下圖是一個由單位正方體組成的直角矩形棱柱。





這個直角矩形棱柱的哪個測量值等於立方體的總數？

A 面積

B 高度

C 周長

D 體積

4 將 34.275 四捨五入到最接近的百分位是多少？

A 34.0

B 34.3

C 34.27

D 34.28

7 一個有 4 名黃金礦工組成的小組發現了 10 盎司黃金。礦工們平分了這些黃金。每位礦工得到了多少盎司黃金？

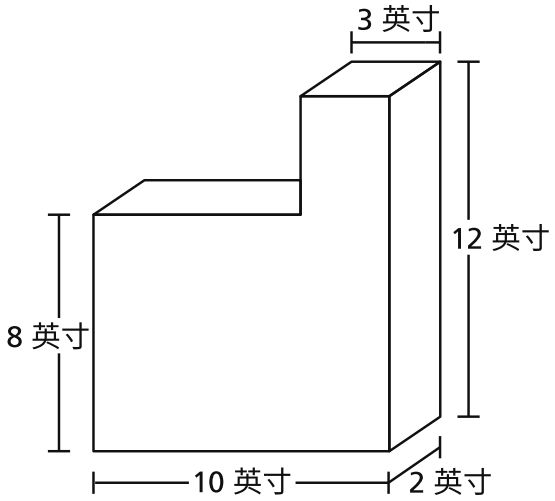
A $\frac{1}{4}$

B $\frac{4}{10}$

C $2\frac{2}{10}$

D $2\frac{1}{2}$

9 下圖是一個三維圖形。



這個圖形的體積是多少立方英寸？

A 35

B 72

C 184

D 240

10 史蒂文有 3 杯葡萄乾。他將所有這些葡萄乾平分給自己和他的朋友們。如果每人得到 $\frac{1}{4}$ 杯葡萄乾，那麼總共有多少人得到葡萄乾？

A 1

B 4

C 7

D 12

繼續

12 索爾有 $6.00 的 25 分硬幣。他將所有這些 25 分硬幣用來玩電子遊戲。如果每次遊戲需要 3 個 25 分硬幣，那麼索爾玩的電子遊戲的總次數是多少？

A 2

B 8

C 12

D 18

15 一家公司舉辦年度員工野餐活動。公司租用巴士運送員工前往野餐區域。員工人數是 1,320。每輛巴士運載 54 名員工。公司**至少**需要多少輛巴士才能將所有員工運送到野餐區域？

A 24

B 25

C 26

D 27

16 哪個比較是正確的？

A $0.04 > 0.14$

B $0.83 > 0.92$

C $0.27 < 0.36$

D $0.52 < 0.49$

19 關於平行四邊形與矩形之間的關係，哪個陳述是正確的？

A 所有平行四邊形都是矩形，但並非所有矩形都是平行四邊形。

B 所有矩形都是平行四邊形，但並非所有平行四邊形都是矩形。

C 所有矩形都是平行四邊形，所有平行四邊形都是矩形。

D 並非所有平行四邊形都是矩形，並非所有矩形都是平行四邊形。

繼續

27 運算式 $\frac{1}{7} \div 5$ 的值是多少？

A $\frac{1}{35}$

B $\frac{1}{12}$

C $\frac{5}{7}$

D $\frac{6}{7}$

28 馬塞爾有 $2\frac{1}{3}$ 杯牛奶。他用 $\frac{2}{3}$ 杯牛奶來沖麥片，用 $1\frac{1}{4}$ 杯牛奶來做煎餅。馬塞爾還剩下多少杯牛奶？

A $\frac{5}{12}$

B $\frac{7}{12}$

C $1\frac{1}{12}$

D $1\frac{11}{12}$

繼續

30 邊長為 $3\frac{3}{4}$ 個單位和 $9\frac{1}{2}$ 個單位的矩形的面積是多少平方單位？

A $13\frac{1}{4}$

B $27\frac{3}{8}$

C $35\frac{5}{8}$

D $47\frac{1}{2}$

停止作答

5年級
數學測驗
第 1 卷
2024 年春季

Grade 5
Mathematics Test
Session 1
Spring 2024

姓名：_____

Chinese (Traditional) Edition

Grade 5 2024
Mathematics Test
Session 2
Spring 2024

紐約州測驗計劃
數學考試
第 2 卷

5年級

2024 年春季

RELEASED QUESTIONS

Developed and published under contract with the New York State Education Department by NWEA, a division of HMH, 14720 Energy Way, Apple Valley, MN 55124.

第 2 卷

應考建議

以下是一些建議，可以幫助你做到最好：

- 仔細閱讀每道題目。慢慢來，別著急。
- 你已獲得了一把尺子、一個量角器和一張參考表，如果它們對你答題有幫助，你可以在測試中使用。
- 如果有相關要求，請寫出你的計算過程。
- 如果有相關要求，回答時務必解釋你的答案。

31 裡達正在一條 2.5 公里長的小路上行走。到目前為止，她已經在這條小路上走了 0.72 公里。裡達還需要走多少公里才能走完這條小路？

A 0.53

B 0.97

C 1.78

D 3.22

32 以下所示運算式的值是多少？

$$\frac{1}{2}+\frac{2}{3}-\frac{1}{4}$$

A $\frac{2}{1}$

B $\frac{4}{9}$

C $\frac{11}{12}$

D $\frac{17}{12}$

33 麗莎繪製了一個有四條邊的形狀，形狀正好有一對平行線和兩個直角。哪個清單可以正確分類麗莎繪製的形狀？

A 正方形、菱形、四邊形

B 梯形、四邊形、多邊形

C 矩形、平行四邊形、多邊形

D 菱形、平行四邊形、四邊形

繼續

34 埃爾希有大小相同的兩袋米。一袋裝了滿袋的 $\frac{1}{3}$，另一袋裝了滿袋的 $\frac{1}{5}$。她將這些大米混合裝進其中一個袋子裡。混合大米後，埃爾希現在的大米占整袋米的分數是多少？

A $\frac{1}{2}$

B $\frac{1}{4}$

C $\frac{2}{15}$

D $\frac{8}{15}$

35 一條街上兩棟房子之間的距離是 450 米。如果以公里為單位測量，這個距離是多少？

A 45

B 4.5

C 0.45

D 0.045

36 **答對這道題可獲得 1 個積分。**

喀爾文有一個直角矩形棱柱形狀的盒子。他在其中裝填單位正方體來確定盒子的體積。盒子的尺寸如下所示。

- 長度：16 英寸
- 寬度：7 英寸
- 高度：8 英寸

每個單位正方體均為 1 立方英寸。喀爾文需要多少個單位正方體才能完全填滿這個盒子？

答案 _____ 個單位正方體

繼續

37 **答對這道題可獲得 1 個積分。**

某個家庭帶著蛋糕去參加聚會。在這個家庭準備離開聚會時，蛋糕剩下 $\frac{3}{4}$。這個家庭將剩下蛋糕的 $\frac{1}{2}$ 留在聚會上，然後將其餘的蛋糕帶回家。這個家庭帶回家的蛋糕占整個蛋糕的分數是多少？

答案 _____ 的蛋糕

38 **答對這道題可獲得 1 個積分。**

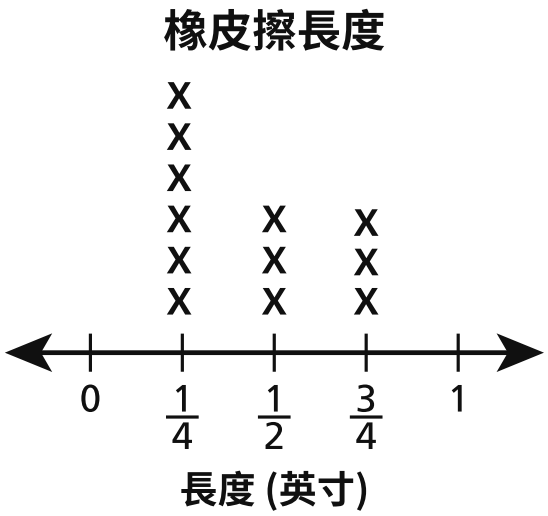
一位教師有 55 張貼紙，貼紙總數為 1,320 個。每張紙的貼紙數量相同。每張紙上有多少個貼紙？

答案 _____ 個貼紙

繼續

39 **答對這道題可獲 2 個積分。**

五年級數學課上的學生測量了 12 個橡皮擦的長度。結果如以下折線圖所示。



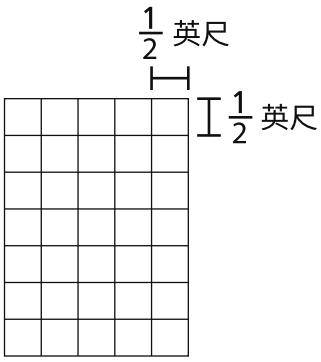
當將這些橡皮擦首尾相連排成一行時，它們的總長度是多少英寸？

請寫出你的計算過程。

答案 _____ 英寸

40 **答對這道題可獲 2 個積分。**

如下所示，檯面上鋪滿了正方形瓷磚。每個正方形瓷磚的邊長均為 $\frac{1}{2}$ 英尺。



這個檯面的面積是多少平方英尺？

請寫出你的計算過程。

答案 _____ 平方英尺

繼續

41 **答對這道題可獲 2 個積分。**

羅莎和史蒂夫都收藏棒球卡。史蒂夫收藏的棒球卡數是羅莎的 $\frac{1}{8}$ 。誰收藏的棒球卡更多？務必在你的答案中加入你對於分數的理解。

請解釋你的答案。

42 **答對這道題可獲 2 個積分。**

一名學生將數字三百六十二又千分之四百零八的展開式寫錯了，如下所示。

$$(3 \times 100) + (6 \times 10) + (2 \times 1) + \left(4 \times \frac{1}{10}\right) + \left(8 \times \frac{1}{100}\right)$$

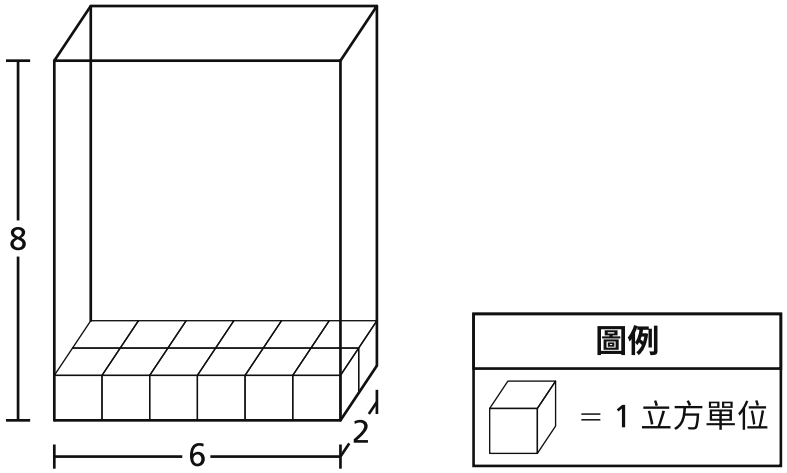
這名學生在寫這個數字的展開式時犯了什麼錯誤？務必在你的答案中包含標準形式的正確數字。

請解釋你的答案。

繼續

43 **答對這道題可獲 2 個積分。**

以下所示的直角矩形棱柱的底填充有單位正方體。



還需要多少個單位正方體才能完全填滿這個直角矩形棱柱？

請解釋你是如何確定自己的答案的。

44 **答對這道題可獲 3 個積分。**

利亞姆製作和銷售手工毯子。他以每碼 $6.75 的價格購買 18 碼布料。利亞姆製作每條毯子需要 1.5 碼布料，並使用了所有的布料。利亞姆以 $18.75 的價格銷售每條毯子。利亞姆購買這些布料並銷售所有毯子後獲得的利潤是多少？

請寫出你的計算過程。

答案 $ _____

停止作答

5年級
數學測驗
第 2 卷
2024 年春季

Grade 5
Mathematics Test
Session 2
Spring 2024

THE STATE EDUCATION DEPARTMENT

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

2024 Mathematics Tests Map to the Standards

Grade 5

Question	Type	Key	Points	Standard	Cluster	Subscore	Secondary Standard(s)
Session 1							
1	Multiple Choice	D	1	NGLS.Math.Content.NY-5.NBT.7	Number and Operations in Base Ten	Number and Operations in Base Ten	
2	Multiple Choice	C	1	NGLS.Math.Content.NY-5.NF.4a	Number and Operations - Fractions	Number and Operations - Fractions	
3	Multiple Choice	D	1	NGLS.Math.Content.NY-5.MD.3a	Measurement and Data	Measurement and Data	
4	Multiple Choice	D	1	NGLS.Math.Content.NY-5.NBT.4	Number and Operations in Base Ten	Number and Operations in Base Ten	
7	Multiple Choice	D	1	NGLS.Math.Content.NY-5.NF.3	Number and Operations - Fractions	Number and Operations - Fractions	
9	Multiple Choice	C	1	NGLS.Math.Content.NY-5.MD.5c	Measurement and Data	Measurement and Data	
10	Multiple Choice	D	1	NGLS.Math.Content.NY-5.NF.7c	Number and Operations - Fractions	Number and Operations - Fractions	
12	Multiple Choice	B	1	NGLS.Math.Content.NY-4.MD.2a	Measurement and Data	Measurement and Data	
15	Multiple Choice	B	1	NGLS.Math.Content.NY-5.NBT.6	Number and Operations in Base Ten	Number and Operations in Base Ten	
16	Multiple Choice	C	1	NGLS.Math.Content.NY-5.NBT.3b	Number and Operations in Base Ten	Number and Operations in Base Ten	
19	Multiple Choice	B	1	NGLS.Math.Content.NY-5.G.3	Geometry		
27	Multiple Choice	A	1	NGLS.Math.Content.NY-5.NF.7a	Number and Operations - Fractions	Number and Operations - Fractions	
28	Multiple Choice	A	1	NGLS.Math.Content.NY-5.NF.2	Number and Operations - Fractions	Number and Operations - Fractions	
30	Multiple Choice	C	1	NGLS.Math.Content.NY-5.NF.4b	Number and Operations - Fractions	Number and Operations - Fractions	
Session 2							
31	Multiple Choice	C	1	NGLS.Math.Content.NY-5.NBT.7	Number and Operations in Base Ten	Number and Operations in Base Ten	
32	Multiple Choice	C	1	NGLS.Math.Content.NY-5.NF.1	Number and Operations - Fractions	Number and Operations - Fractions	
33	Multiple Choice	B	1	NGLS.Math.Content.NY-5.G.4	Geometry		
34	Multiple Choice	D	1	NGLS.Math.Content.NY-5.NF.2	Number and Operations - Fractions	Number and Operations - Fractions	
35	Multiple Choice	C	1	NGLS.Math.Content.NY-5.MD.1	Measurement and Data	Measurement and Data	
36	Constructed Response	n/a	1	NGLS.Math.Content.NY-5.MD.5a	Measurement and Data	Measurement and Data	
37	Constructed Response	n/a	1	NGLS.Math.Content.NY-5.NF.6	Number and Operations - Fractions	Number and Operations - Fractions	
38	Constructed Response	n/a	1	NGLS.Math.Content.NY-5.NBT.6	Number and Operations in Base Ten	Number and Operations in Base Ten	
39	Constructed Response	n/a	2	NGLS.Math.Content.NY-5.MD.2	Measurement and Data	Measurement and Data	
40	Constructed Response	n/a	2	NGLS.Math.Content.NY-5.NF.4b	Number and Operations - Fractions	Number and Operations - Fractions	
41	Constructed Response	n/a	2	NGLS.Math.Content.NY-5.NF.5a	Number and Operations - Fractions	Number and Operations - Fractions	
42	Constructed Response	n/a	2	NGLS.Math.Content.NY-5.NBT.3a	Number and Operations in Base Ten	Number and Operations in Base Ten	
43	Constructed Response	n/a	2	NGLS.Math.Content.NY-5.MD.5a	Measurement and Data	Measurement and Data	
44	Constructed Response	n/a	3	NGLS.Math.Content.NY-5.NBT.7	Number and Operations in Base Ten	Number and Operations in Base Ten	

*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.