New York State
EDUCATION DEPARTMENT
Knowledge › Skill › Opportunity

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

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 (Simplified) Edition

Grade 5 2024

Mathematics Test

Session 1

Spring 2024

纽约州测试计划
数学测试
第 1 部分

5 年级

2024 年春季

RELEASED QUESTIONS

第 1 部分

参加本次考试的提示

以下是一些可以帮助你做到最好的建议：

- 仔细阅读每道题目。慢慢来，别着急。
- 你已获得一把尺子、一个量角器和一张参考表，如果它们对你答题有帮助，则可在测试中使用。

1 卡洛斯周六走了 3.65 公里，周日走了 1.46 公里。卡洛斯周六和周日总共走了多少公里？

A 2.19

B 2.29

C 5.01

D 5.11

2 哪个表达式等于 $5 \times \frac{3}{4}$？

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

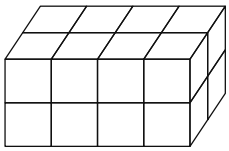
B $\frac{5}{1} - \frac{3}{4}$

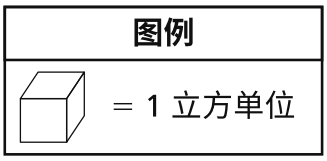
C $\frac{3}{4} + \frac{3}{4} + \frac{3}{4} + \frac{3}{4} + \frac{3}{4}$

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

继续

3 以下是一个由单位正方体组成的直角矩形棱柱的示意图。





该直角矩形棱柱的什么测量值等于正方体的总数?

A 面积

B 高度

C 周长

D 体积

4 将 34.275 四舍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 一个有 4 名黄金矿工组成的小组发现了 10 盎司黄金。矿工们平分了这些黄金。每位矿工得到了多少盎司黄金?

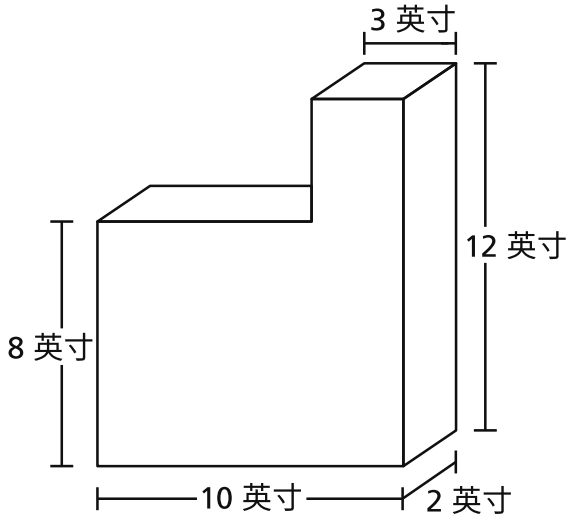
A $\frac{1}{4}$

B $\frac{4}{10}$

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

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

9 下面显示了一个三维图形的示意图。



这个图形的体积是多少立方英寸?

A 35

B 72

C 184

D 240

10 史蒂文有 3 杯葡萄干。他将所有这些葡萄干平分给自己和他的朋友们。如果每人得到 $\frac{1}{4}$ 杯葡萄干，那么总共有多少人得到葡萄干?

A 1

B 4

C 7

D 12

继续

12 索尔有 $6.00 的 25 分硬币。他将所有这些 25 分硬币用来玩电子游戏。如果每次游戏需要 3 个 25 分硬币，那么索尔总共玩了多少次电子游戏?

A 2

B 8

C 12

D 18

15 一家公司每年举办一次员工野餐。该公司租用巴士运送员工前往野餐区域。员工有 1,320 名。每辆巴士运载 54 名员工。该公司**至少**需要多少辆巴士才能将所有员工运送到野餐区域?

A 24

B 25

C 26

D 27

16 哪个比较是正确的?

A $0.04 > 0.14$

B $0.83 > 0.92$

C $0.27 < 0.36$

D $0.52 < 0.49$

19 关于平行四边形与矩形之间的关系，哪个陈述是正确的?

A 所有平行四边形都是矩形，但并非所有矩形都是平行四边形。

B 所有矩形都是平行四边形，但并非所有平行四边形都是矩形。

C 所有矩形都是平行四边形，所有平行四边形都是矩形。

D 并非所有平行四边形都是矩形，并非所有矩形都是平行四边形。

继续

27 表达式 $\frac{1}{7} \div 5$ 的值是多少?

A $\frac{1}{35}$

B $\frac{1}{12}$

C $\frac{5}{7}$

D $\frac{6}{7}$

28 马塞尔有 $2\frac{1}{3}$ 杯牛奶。他用 $\frac{2}{3}$ 杯牛奶来冲麦片，用 $1\frac{1}{4}$ 杯牛奶来做煎饼。马塞尔还剩下多少杯牛奶?

A $\frac{5}{12}$

B $\frac{7}{12}$

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

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

继续

30 边长为 $3\frac{3}{4}$ 个单位和 $9\frac{1}{2}$ 个单位的矩形的面积是多少平方单位?

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

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

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

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

停止

5 年级
数学测试
第 1 部分
2024 年春季

Grade 5
Mathematics Test
Session 1
Spring 2024

姓名：_____

Chinese (Simplified) Edition

Grade 5 2024

Mathematics Test

Session 2

Spring 2024

纽约州测试计划
数学测试
第 2 部分

5 年级

2024 年春季

RELEASED QUESTIONS

第 2 部分

第 2 部分

参加本次考试的提示

以下是一些可以帮助你做到最好的建议：

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- 你已获得一把尺子、一个量角器和一张参考表，如果它们对你答题有帮助，则可在测试中使用。
- 如果有相关要求，回答时务必写出你的演算过程。
- 如果有相关要求，回答时务必解释你的答案。

31 里达正在一条 2.5 公里长的小路上行走。到目前为止，她已经在这条小路上走了 0.72 公里。里达还需要走多少公里才能走完这条小路?

A 0.53

B 0.97

C 1.78

D 3.22

32 以下所示的表达式的值是多少?

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

A $\frac{2}{1}$

B $\frac{4}{9}$

C $\frac{11}{12}$

D $\frac{17}{12}$

33 丽莎绘制了一个有四条边的形状，该形状正好有一对平行线和两个直角。哪个列表对丽莎绘制的形状进行了正确分类?

A 正方形、菱形、四边形

B 梯形、四边形、多边形

C 矩形、平行四边形、多边形

D 菱形、平行四边形、四边形

继续

34 埃尔希有大小相同的两袋米。一袋装满了 $\frac{1}{3}$，另一袋装满了 $\frac{1}{5}$。她将这些大米混合装进其中一个袋子里。混合大米后，埃尔希现在拥有的大米占整袋米的几分之几?

A $\frac{1}{2}$

B $\frac{1}{4}$

C $\frac{2}{15}$

D $\frac{8}{15}$

35 一条街上两栋房子之间的距离是 450 米。该距离以公里为单位测量是多少?

A 45

B 4.5

C 0.45

D 0.045

36 **这道题值 1 个学分。**

卡尔文有一个直角矩形棱柱形状的盒子。他在其中装填单位正方体来确定其体积。以下列出了该盒子的尺寸。

- 长度：16 英寸
- 宽度：7 英寸
- 高度：8 英寸

每个单位正方体均为 1 立方英寸。卡尔文将需要多少个单位正方体才能完全填满该盒子?

答案 _____ 个单位正方体

继续

37 **这道题值 1 个学分。**

一个家庭带着蛋糕去参加聚会。当该家庭准备离开聚会时，蛋糕剩下 $\frac{3}{4}$。该家庭将剩下蛋糕的 $\frac{1}{2}$ 留在聚会上，然后将其余的蛋糕带回家。该家庭带回家的蛋糕占整个蛋糕的几分之几?

答案 _____ 的蛋糕

38 **这道题值 1 个学分。**

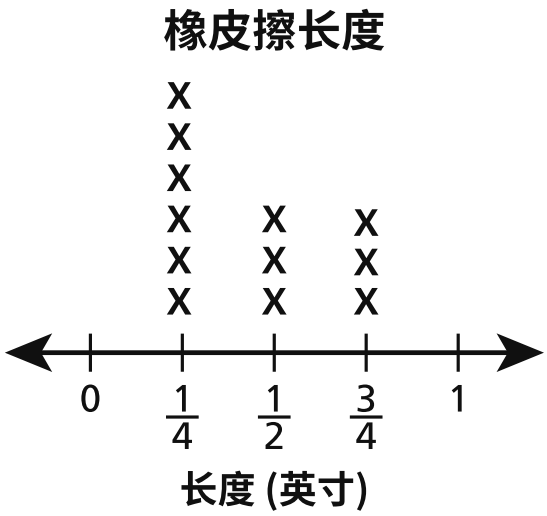
一位老师有 55 张贴纸，贴纸总数为 1,320 个。每张纸有相同数量的贴纸。每张纸上有多少个贴纸?

答案 _____ 个贴纸

继续

39 **这道题值 2 个学分。**

五年级数学课上的学生测量了 12 个橡皮擦的长度。以下折线图显示了结果。



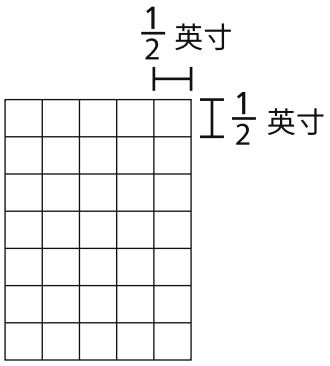
如果将这些橡皮擦首尾相连排成一行，它们的总长度是多少英寸？

写出你的演算过程。

答案 _____英寸

40 **这道题值 2 个学分。**

如下所示，台面上铺满了正方形瓷砖。每个正方形瓷砖的边长均为 $\frac{1}{2}$ 英尺。



该台面的面积是多少平方英尺?

写出你的演算过程。

答案 _____ 平方英尺

继续

41 **这道题值 2 个学分。**

罗莎和史蒂夫都收藏棒球卡。史蒂夫收藏的棒球卡数是罗莎的 $\frac{1}{8}$ 。谁拥有的棒球卡更多？务必在你的答案中包含你对分数的了解。

解释你的答案。

42 **这道题值 2 个学分。**

一名学生将数字三百六十二又千分之四百零八的展开式写错了，如下所示。

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

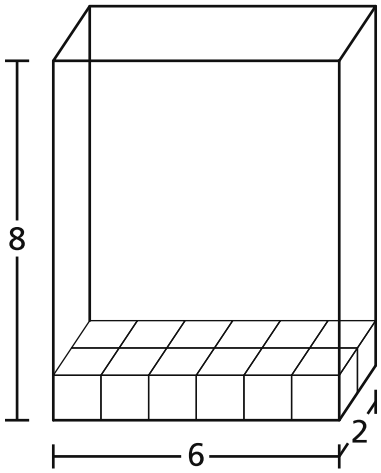
该学生在写这个数字的展开式时犯了什么错误？务必在你的答案中包含标准形式的正确数字。

解释你的答案。

继续

43 **这道题值 2 个学分。**

以下所示的直角矩形棱柱的底填有单位正方体。



图例
= 1 立方单位

还需要多少个单位正方体才能完全填满该直角矩形棱柱?

解释你是如何确定你的答案的。

44 **这道题值 3 个学分。**

利亚姆制作和销售手工毯子。他以每码 $6.75 的价格购买 18 码布料。利亚姆使用 1.5 码布料制作每条毯子，并且使用了所有布料。利亚姆以 $18.75 销售每条毯子。利亚姆购买这些布料并销售所有毯子后获得的利润是多少？

写出你的演算过程。

答案 $ _____

停止

5 年级
数学测试
第 2 部分
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.