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Our Students. Their Moment.

New York State Testing Program
Grade 3
Mathematics Test

Released Questions

June 2019

New York State administered the Mathematics Tests in May 2019
and is now 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 2019 Exams

Background

In 2013, New York State 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 (SED) 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 large portions of the 2019 NYS Grades 3-8 English Language Arts and Mathematics test materials for review, discussion, and use.

For 2019, included in these released materials are at least 75 percent of the test questions that appeared on the 2019 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 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.

Short-Response Questions

Short-response questions require students to complete tasks and show their work. Like multiple-choice questions, short-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 of the standards.

Extended-Response Questions

Extended-response questions ask students to show their work in completing two or more tasks or a more extensive problem. Extended-response questions allow students to show their understanding of mathematical procedures, conceptual understanding, and application. Extended-response questions may also assess student reasoning and the ability to critique the arguments of others.

The scoring rubric for short and extended constructed-response questions can be found in the grade-level Educator Guides at https://www.engageny.org/resource/test-guides-english-language-arts-andmathematics.

New York State P-12 Learning Standards Alignment

The alignment(s) to the New York State P-12 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-point and three-point 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 future valid and reliable tests, some content must remain secure for possible use on future exams. As such, 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 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. Specific criteria for writing test questions, as well as additional assessment information, are available at http://www.engageny.org/common-core-assessments.

姓名：_____

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

紐約州考試計劃
數學考試
第 1 卷

3 年級

2019 年 5 月 1 至 3 日

RELEASED QUESTIONS

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，認真思考後再作答。
- 本次考試提供一把尺子讓你使用。考試中如需要使用，可以使用尺子。

1 以下陣列代表一個乘積。

哪個表達式可用於計算陣列所代表的乘積？

A $4 + 3$

B $4 + 4 + 4 + 4$

C 3×4

D $3 \times 3 \times 3 \times 3$

2 露西正在計數，間隔為 2。她從數字 2 開始，在數字 50 處停止。哪個數字露西不需要數？

A   11

B   22

C   34

D   48

3 卡特女士的課堂中有 30 名學生。她將他們安排成 5 個人數相等的小組。請問哪個表達式代表了如何確定每組中的學生人數？

A $30 + 5$

B $30 \div 5$

C $30 - 5$

D 30×5

繼續

6 傑西在上次籃球比賽中得了 18 分。已知她每次投中得 2 分。請問她投中了多少次？

A 20

B 16

C 9

D 8

7 圖書管理員收到圖書館的兩箱書。第一箱有 136 本書。第二箱的書比第一箱少 58 本。請問圖書管理員一共收到多少本書？

A 58

B 78

C 194

D 214

8 哪兩個分數應該放置在數軸上的同一位置？

A $\frac{3}{4}$ 和 $\frac{4}{8}$
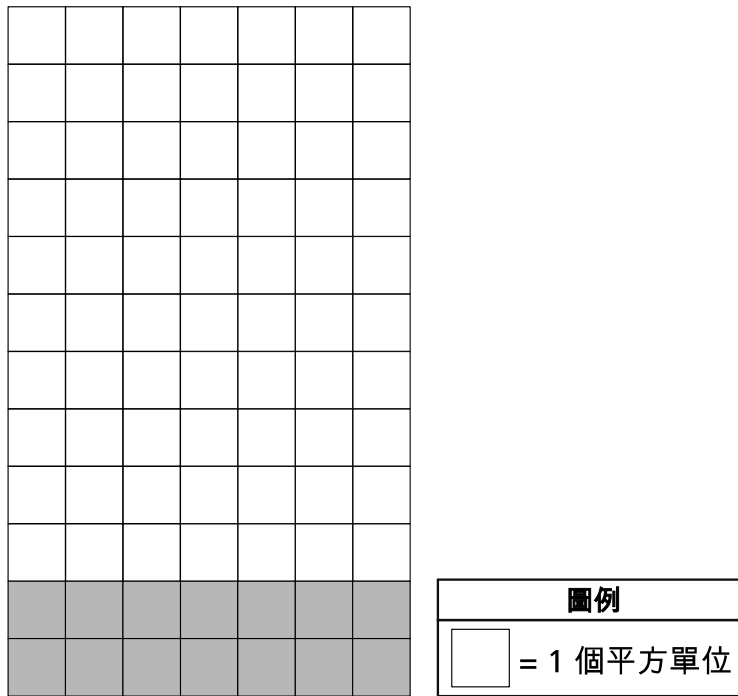
B $\frac{1}{4}$ 和 $\frac{2}{8}$

C $\frac{2}{4}$ 和 $\frac{4}{6}$

D $\frac{1}{2}$ 和 $\frac{2}{6}$

繼續

15 下圖表示的是覆蓋有白色瓷磚和灰色瓷磚的地板。

圖例
$\square$ = 1 個平方單位

哪個表達式可用於確定整個地板的面積（以平方單位表示）？

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 哪個表達式等於 $(5 + 2) \times 8$？

A $(8 \times 5) + (8 \times 2)$

B $(5 \times 8) + (5 \times 2)$

C $8 \times (5 \times 2)$

D $(5 \times 8) \times 2$

繼續

21 當缺失的數字是 7 時，哪個方程式是正確的？

A $7 \times \underline{\quad?\quad} = 42$

B $7 \times \underline{\quad?\quad} = 49$

C $8 \times \underline{\quad?\quad} = 40$

D $8 \times \underline{\quad?\quad} = 48$

22 一個數四捨五入到最接近的百位。結果是 500。請問下面哪個數不可能是在將它捨入到最接近的百位之前的那個數？

A   458

B   463

C   547

D   559

23 哪句陳述正確？

A 5×2 的乘積是偶數，因為兩個因數都是偶數。

B 4×4 的乘積是奇數，因為兩個因數都是偶數。

C 2×7 的乘積是偶數，因為兩個因數都是奇數。

D 5×3 的乘積是奇數，因為兩個因數都是奇數。

3 年級

2019
數學考試
第 1 卷
2019 年 5 月 1 至 3 日

Grade 3

2019
Mathematics Test
Session 1
May 1–3, 2019

姓名：＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿

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

紐約州考試計劃 數學考試 第 2 卷

3 年級

2019 年 5 月 1 至 3 日

RELEASED QUESTIONS

考試建議

以下建議可協助你獲得好成績：

- 在作出選擇或寫下答案之前，請仔細閱讀每一試題，好好思考後再作答。
- 本次考試提供一把尺子讓你使用。考試中如有需要使用，可以使用尺子。
- 如果有相關要求，請寫出你的解答。

26 以下圖採用陰影來代表一個分數。

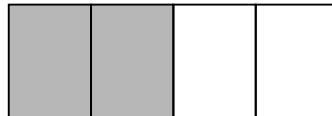哪個圖用陰影表示等於上面所示圖的分數？

A

C

B

D

27 商店經理從他們的倉庫訂購襯衫。襯衫被裝入盒子並送到商店，如下所述。
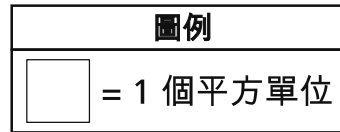
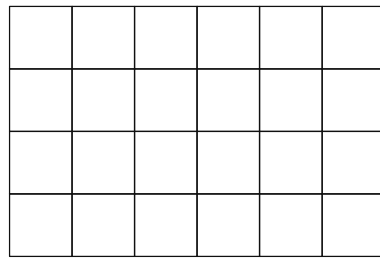- 共計訂購了 81 件襯衫
- 每個包裝箱內各有 9 件襯衫

訂購的所有襯衫需要多少個包裝箱？

A   8

B   9

C   72

D   90

28 麗薩使用平方單位來確定下面所示矩形的面積。

圖例
☐ ＝ 1 個平方單位

請問矩形的總面積是多少個平方單位？

A　　16

B　　20

C　　24

D　　28

29 加澤先生班上的學生正在收集金屬罐。下面的條形圖顯示了他們三天中每天所收集的金屬罐數量。

收集的金屬罐
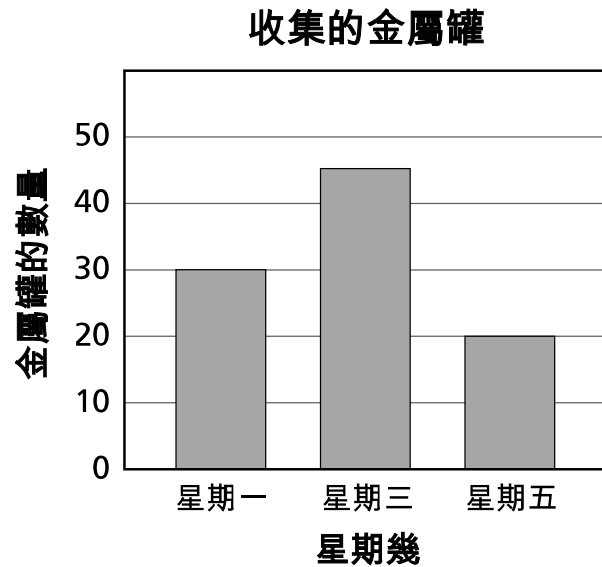
星期三比星期五多收集了多少個金屬罐？
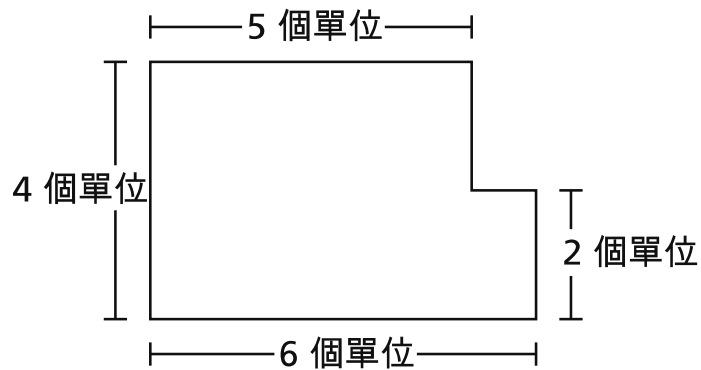
A　15

B　20

C　25

D　45

30 在哪種情況下可以使用表達式 $64 \div 8$？

A　共有 8 輛公共汽車，每輛公共汽車上有 64 名學生。

B　萬斯女士將 8 只鋼筆和 64 只鉛筆放在一個盒子中。

C　書櫃裡有 64 本書，其中 8 本書被移除。

D　華雷斯先生有 64 只杯子，平均放在 8 張桌子上。

繼續

31 下圖是兩個矩形組合的結果。

請問圖的總面積是多少個平方單位？

A   17

B   20

C   22

D   32

32 哪個表達式等於 4×9？

A $(4 \times 4) + (4 \times 5)$

B $(4 + 4) \times (4 + 5)$

C $(4 + 4) + (4 + 5)$

D $(4 \times 4) \times (4 \times 5)$

33 吳教練共有 **30** 個足球。

- 其中 **9** 個足球是白色的。

- 其餘的足球分別為三種不同的顏色（藍色、粉色或綠色）

- 藍色、粉色和綠色足球的數量相同

請問吳教練有多少個綠色足球？

A　7

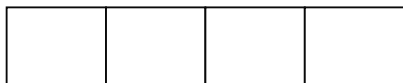**B**　10

C　21

D　39

34 懷亞特想要求解下列方程式來確定缺失的因數。

$$8 \times \underline{} = 24$$

懷亞特如何透過將方程式更改為除法問題來確定缺失的因數？請務必在答案中包含缺失因數的值。

請解釋你的答案。

35

兩個家庭購買相同尺寸的大三明治。如下圖所示，A 家庭在 4 個人中平均分享一個三明治。

B 家庭在 2 個人之間平均分享一個三明治。

來自 A 家庭的每個人獲得的三明治數量與來自 B 家庭的每個人獲得的三明治數量是否相同？請務必在答案中包含你對分數或整體部分的瞭解。

請解釋你的答案。

36 蘇茜為她的朋友們做了杯形蛋糕。她於下午 **2:40** 開始做。下面的清單顯示了完成流程每個步驟所需的分鐘數。

- 9 分鐘用於混合麵糊

- 18 分鐘用於烤杯形蛋糕

- 5 分鐘用於冷卻

- 10 分鐘用於給杯形蛋糕撒糖霜

什麼時候蘇茜完成了給杯形蛋糕撒糖霜？

請寫出你的解答過程。

答案 下午 _____

37 埃詩琳每天騎自行車 2 英里上學，之後再騎 2 英里回家。埃詩琳在 40 天內將騎自行車上學和回家共計幾英里？

請寫出你的解答過程。

答案 _____ 英里

38 下面顯示了兩個圖。

圖例

□ = 1 平方英尺
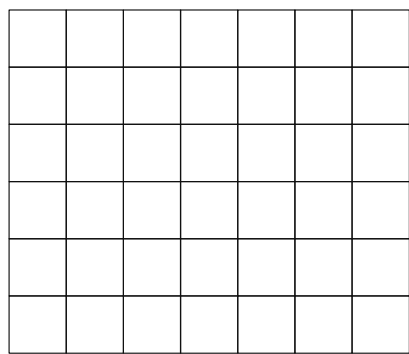
圖 A
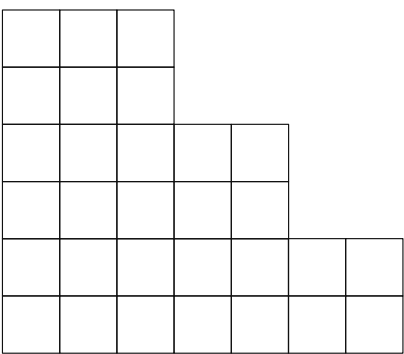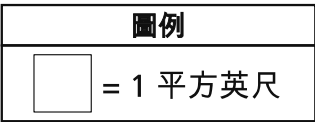
圖 B

圖 A 的面積與圖 B 的面積之差是多少平方英尺？

解釋你是怎麼確定自己的答案的。

_____

_____

_____

39 吉安娜將緞帶剪成了一些相同的段，如下圖所示。

她將其中 4 小段用於一個項目。吉安娜在項目中使用了幾分之幾的緞帶？

解釋你是怎麼確定自己的答案的。

_____

_____

_____

40 羅斯女士正在為她的家人做早餐。她製作了 15 個小煎餅，平均分配給 3 個人。每個人將得到多少個小煎餅？

請寫出你的解答過程。

答案 _____ 個煎餅

羅斯女士還想給每個人一杯橙汁。如果每個人得到 8 盎司，她總共需要多少盎司的橙汁？

請寫出你的解答過程。

答案 _____ 盎司

停止作答

3 年級
2019
數學考試
第 2 卷
2019 年 5 月 1 至 3 日

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

Question	Type	Key	Points	Standard	Cluster	Subscore
Session 1						
1	Multiple Choice	C	1	CCSS.Math.Content.3.OA.A.1	Operations and Algebraic Thinking	Operations and Algebraic Thinking
2	Multiple Choice	A	1	CCSS.Math.Content.3.OA.D.9	Operations and Algebraic Thinking	Operations and Algebraic Thinking
3	Multiple Choice	B	1	CCSS.Math.Content.3.OA.A.2	Operations and Algebraic Thinking	Operations and Algebraic Thinking
6	Multiple Choice	C	1	CCSS.Math.Content.3.OA.A.3	Operations and Algebraic Thinking	Operations and Algebraic Thinking
7	Multiple Choice	D	1	CCSS.Math.Content.3.OA.D.8	Operations and Algebraic Thinking	Operations and Algebraic Thinking
8	Multiple Choice	B	1	CCSS.Math.Content.3.NF.A.3a	Number and Operations - Fractions	Number and Operations - Fractions
15	Multiple Choice	D	1	CCSS.Math.Content.3.MD.C.7c	Measurement and Data	Measurement and Data
16	Multiple Choice	A	1	CCSS.Math.Content.3.OA.B.5	Operations and Algebraic Thinking	Operations and Algebraic Thinking
21	Multiple Choice	B	1	CCSS.Math.Content.3.OA.A.4	Operations and Algebraic Thinking	Operations and Algebraic Thinking
22	Multiple Choice	D	1	CCSS.Math.Content.3.NBT.A.1	Number and Operations in Base Ten	
23	Multiple Choice	D	1	CCSS.Math.Content.3.OA.D.9	Operations and Algebraic Thinking	Operations and Algebraic Thinking
Session 2						
26	Multiple Choice	C	1	CCSS.Math.Content.3.NF.A.3b	Number and Operations - Fractions	Number and Operations - Fractions
27	Multiple Choice	B	1	CCSS.Math.Content.3.OA.A.3	Operations and Algebraic Thinking	Operations and Algebraic Thinking
28	Multiple Choice	C	1	CCSS.Math.Content.3.MD.C.5b	Measurement and Data	Measurement and Data
29	Multiple Choice	C	1	CCSS.Math.Content.3.MD.B.3	Measurement and Data	Measurement and Data
30	Multiple Choice	D	1	CCSS.Math.Content.3.OA.A.2	Operations and Algebraic Thinking	Operations and Algebraic Thinking
31	Multiple Choice	C	1	CCSS.Math.Content.3.MD.C.7d	Measurement and Data	Measurement and Data
32	Multiple Choice	A	1	CCSS.Math.Content.3.OA.B.5	Operations and Algebraic Thinking	Operations and Algebraic Thinking
33	Multiple Choice	A	1	CCSS.Math.Content.3.OA.D.8	Operations and Algebraic Thinking	Operations and Algebraic Thinking
34	Constructed Response		2	CCSS.Math.Content.3.OA.B.6	Operations and Algebraic Thinking	Operations and Algebraic Thinking
35	Constructed Response		2	CCSS.Math.Content.3.NF.A.3d	Number and Operations - Fractions	Number and Operations - Fractions
36	Constructed Response		2	CCSS.Math.Content.3.MD.A.1	Measurement and Data	Measurement and Data

37	Constructed Response		2	CCSS.Math.Content.3.NBT.A.3	Number and Operations in Base Ten	
38	Constructed Response		2	CCSS.Math.Content.3.MD.C.6	Measurement and Data	Measurement and Data
39	Constructed Response		2	CCSS.Math.Content.3.NF.A.1	Number and Operations - Fractions	Number and Operations - Fractions
40	Constructed Response		3	CCSS.Math.Content.3.OA.A.3	Operations and Algebraic Thinking	Operations and Algebraic 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.