engage^ny

Our Students. Their Moment.

New York State Testing Program Grade 3 Common Core Mathematics Test (Chinese)

Released Questions

2017

New York State administered the Mathematics Common Core Tests in June 2017 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 2017 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 2017 NYS Grades 3-8 Common Core English Language Arts and Mathematics test materials for review, discussion, and use.

For 2017, included in these released materials are at least 75 percent of the test questions that appeared on the 2017 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-and-mathematics.

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 Common Core
Mathematics Test
Book 1
May 2–4, 2017

紐約州考試計劃
數學考試
第 1 卷

3 年級

2017 年 5 月 2 至 4 日

Released Questions

第 1 卷

考試建議

以下建議可協助你獲得好成績：

- 在回答問題之前，仔細閱讀每一試題，並好好思考一下答案後再作答。
- 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。

1 西奧將一座花園平分成 6 等份。他在其中的 5 個部分播種。西奧在花園的幾分之幾播種？

A $\frac{1}{6}$

B $\frac{1}{5}$

C $\frac{5}{6}$

D $\frac{6}{5}$

2 哪個數字可令以下方程式成立？

$$35 \div ? = 7$$

A 5

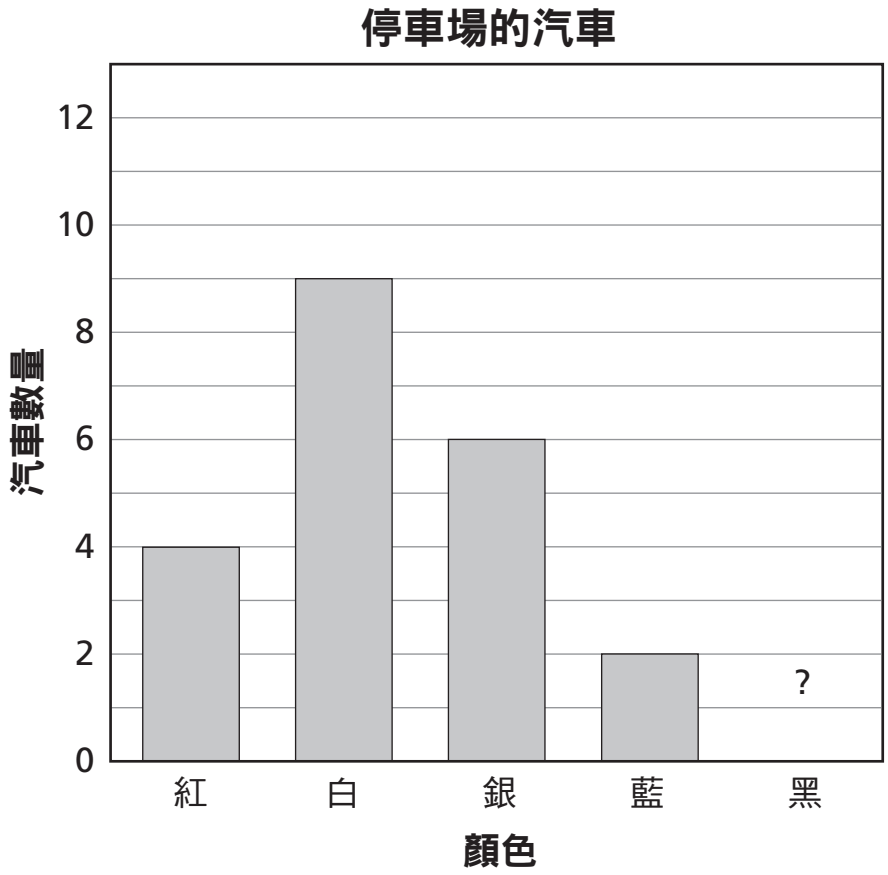
B 6

C 7

D 8

繼續

5 這張條形圖說明了一個停車場中汽車的數量和顏色。



銀色加黑色汽車的總數等於紅色、白色加藍色汽車的總數。停車場中有多少輛黑色汽車？

A 9

B 10

C 15

D 30

繼續

6 克爾頓和他的爸爸買了一加侖油漆，價格是 $13。他們還買了 2 把刷子，每把價格為 $9。他們購買的刷子和油漆總價格是多少（不含稅）？

A $22

B $24

C $31

D $35

7 下表顯示的四個數字四捨五入到了最接近的百位。其中一個數字在四捨五入時出現了錯誤。

起始編號	四捨五入到最接近的百位
1,212	1,200
2,396	2,300
3,636	3,600
5,573	5,600

哪個數字在四捨五入到最接近的百位時出現了錯誤？

A 1,212

B 2,396

C 3,636

D 5,573

8 泰夏安將 56 個彈珠整理成等分組，沒有多餘的彈珠。對於泰夏安整理的彈珠組，哪句陳述是正確的？

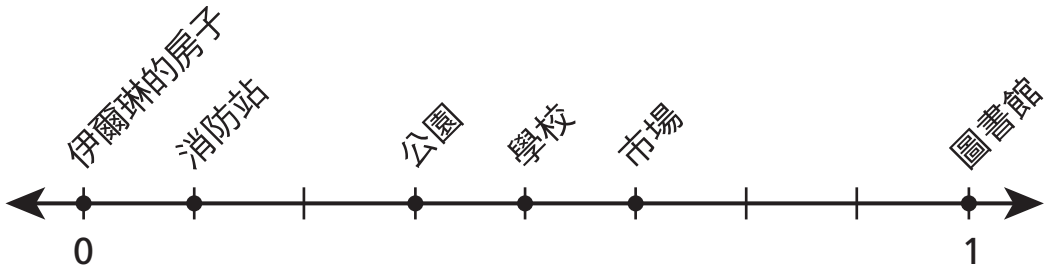
A 有 6 組彈珠，每組 8 個。

B 有 7 組彈珠，每組 7 個。

C 有 8 組彈珠，每組 7 個。

D 有 9 組彈珠，每組 6 個。

9 伊爾琳步行 1 英里從自己家走到圖書館。下面的數軸顯示了她一路上路過的幾個地點。



哪個地點距離伊爾琳的家是 $\frac{4}{8}$ 英里？

A 消防站

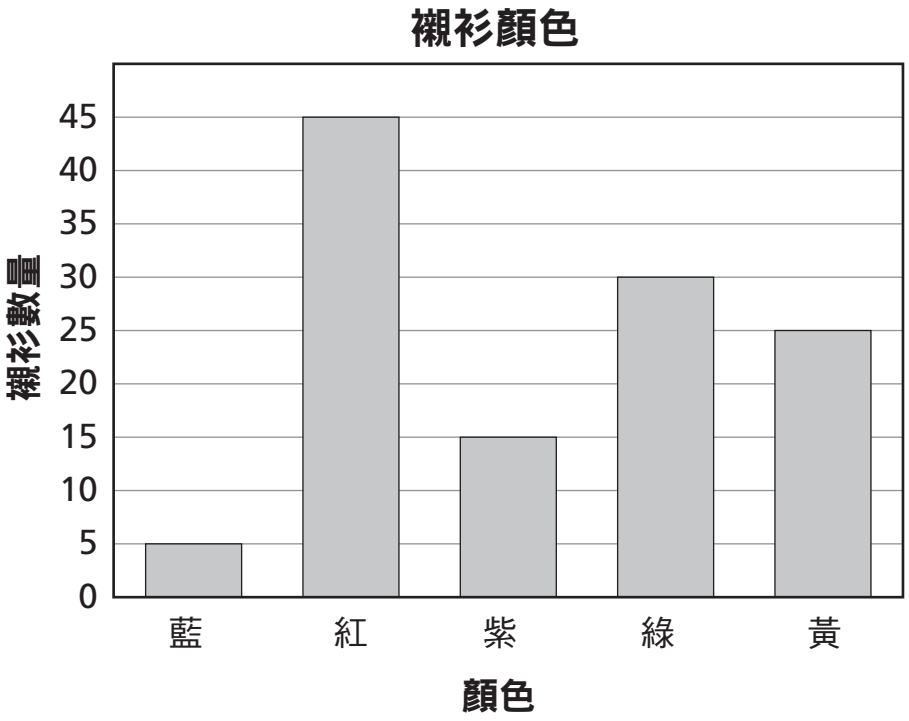
B 公園

C 學校

D 市場

繼續

13 下面的圖表顯示了一家商店中每種顏色襯衫的數量。



在這家商店中，紅色襯衫的數量比藍色和黃色襯衫的數量之和多出多少件？

A 15

B 30

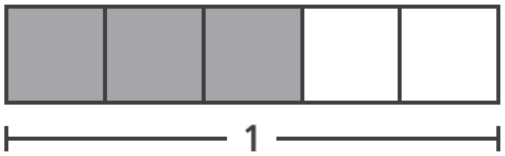
C 40

D 45

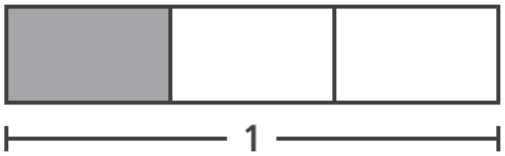
繼續

16 以下哪項採用陰影來代表 $\frac{2}{3}$？

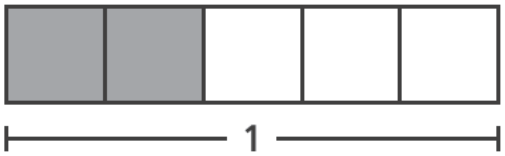
A



B



C



D

17 卡門存了 592 個一仙硬幣。她的妹妹存了 128 個一仙硬幣。她們在封紙中一共放了 250 個一仙硬幣，然後帶著錢去銀行。卡門和她的妹妹一共還剩下多少個一仙硬幣（四捨五入到最接近的百位）？

A 300

B 500

C 700

D 1,000

繼續

20 在以下數軸上，P 點代表的是哪個分數？

A $\frac{1}{6}$

B $\frac{2}{6}$

C $\frac{1}{4}$

D $\frac{2}{4}$

21 安雅將 16 個杯子放在桌子上排成行。每一排有 8 個杯子。請問可以用哪個方程式來表示此種情況？

A $16 \times 8 = \square$

B $8 + 16 = \square$

C $\square \div 8 = 16$

D $\square \times 8 = 16$

繼續

22 哪個分數等於 $\frac{2}{8}$?

A $\frac{8}{2}$

B $\frac{1}{2}$

C $\frac{2}{4}$

D $\frac{1}{4}$

停止作答

3 年級

2017 Common Core
數學考試
第 1 卷

2017 年 5 月 2 至 4 日

Grade 3

2017 Common Core
Mathematics Test
Book 1

May 2–4, 2017

姓名：_____

Chinese Edition

Grade 3 Common Core
Mathematics Test
Book 2
May 2–4, 2017

紐約州考試計劃
數學考試
第 2 卷

3 年級

2017 年 5 月 2 至 4 日

Released Questions

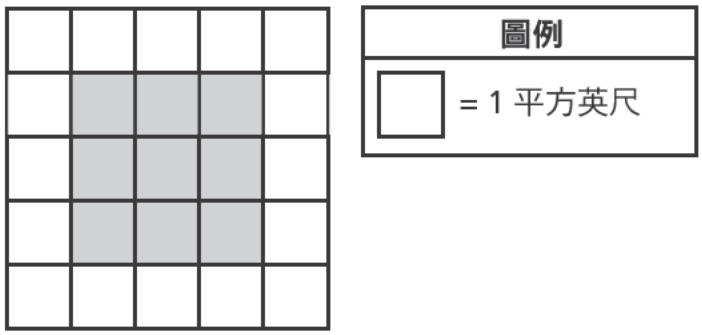
第 2 卷

考試建議

以下建議可協助你獲得好成績：

- 在回答問題之前，仔細閱讀每一試題，並好好思考一下答案後再作答。
- 本次考試提供一把尺子讓你使用。考試如有需要，可以使用尺子。

23 布蘭登用正方形磁貼來計算下圖陰影部分的面積。



這張圖陰影部分的面積是多少？

A 3 個平方單位

B 6 個平方單位

C 8 個平方單位

D 9 個平方單位

24 在空白處填入數字 8 時，哪一對等式正確？

A
$4 \times \_\_\_\_ = 32$
$32 \div \_\_\_\_ = 4$

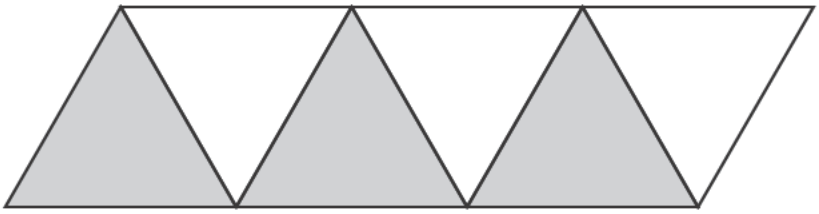
B
$5 \times \_\_\_\_ = 40$
$\_\_\_\_ \div 40 = 5$

C
$6 \times 48 = \_\_\_\_$
$48 \div \_\_\_\_ = 6$

D
$7 \times \_\_\_\_ = 63$
$63 \div \_\_\_\_ = 7$

繼續

25 下圖被分成了一些大小相同的部分。



圖形的陰影部分代表哪個分數？

A $\frac{1}{3}$

B $\frac{3}{3}$

C $\frac{3}{6}$

D $\frac{6}{3}$

26 米勒女士的班上有 12 名學生。她需要為班級派對準備 24 盒果汁。果汁裝在盒中，每包有 6 盒。可以用哪個運算式計算出米勒女士需要為班級派對購買的盒裝果汁的包數？

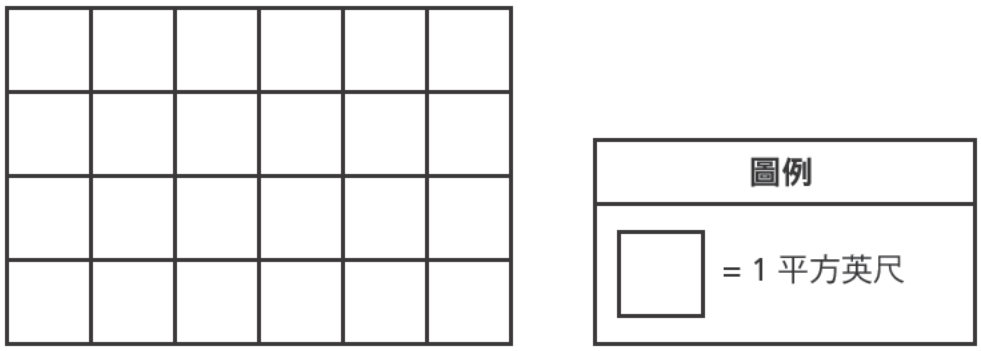
A $24 + 12$

B $36 \div 6$

C 12×6

D $24 \div 6$

27 下圖由正方形拼接而成。



可使用哪個運算式來求得這個圖形的面積？

A 4×6

B $4 + 6$

C $4 \times 4 \times 6 \times 6$

D $4 + 4 + 6 + 6$

繼續

29 請問哪個數式等於 5×9 ？

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

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

C $(5 \times 5) + (5 \times 9)$

D $(5 \times 9) \times (5 \times 9)$

30 一位教練將一次田徑運動會上的賽跑選手數量四捨五入到最接近的十位。四捨五入後，賽跑選手的數量為 400。田徑運動會上賽跑選手的實際數字可以是多少？

A 382

B 397

C 406

D 447

31 上週末，桑傑看了 3 集電視劇，每集時長 30 分鐘。他還在電視上看了一部時長 90 分鐘的影片。上週末桑傑總共看了多少分鐘的電視？

A 100

B 120

C 150

D 180

32 共有 30 名球員將在一座公園裡打籃球。每支球隊正好有 5 名球員。哪個陳述正確解釋了計算所需球隊數量的方法？

A 用 30 加上 5，計算結果為 35 支球隊。

B 用 30 除以 5，計算結果為 6 支球隊。

C 用 30 乘以 5，計算結果為 150 支球隊。

D 用 30 減去 5，計算結果為 25 支球隊。

繼續

35 法蘭基的音樂課於上午 9:40 開始。這堂課時間為 45 分鐘。請問哪個鐘錶顯示的是法蘭基的下課時間？

A

C

B

D

36 哪個數字乘以 4 等於 36？

A 6

B 7

C 8

D 9

繼續

37 下面的分數模型採用陰影來代表一個分數。

哪一個被填塗陰影的分數模型表示的分數等於如上所示的分數模型表示的分數？

A 

B 

C 

D 

38 在這些分數的比較中，哪個比較**不**正確？

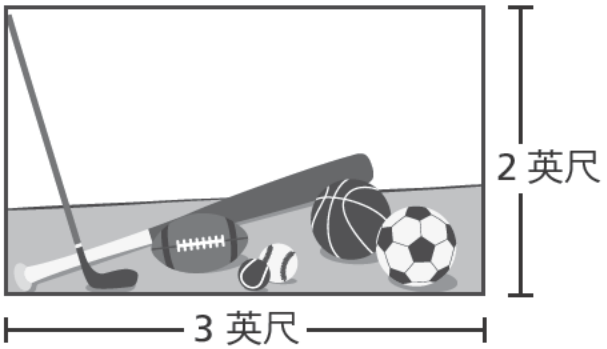
A $\frac{1}{3} < \frac{2}{3}$

B $\frac{3}{4} < \frac{1}{4}$

C $\frac{2}{3} > \frac{2}{8}$

D $\frac{5}{6} > \frac{5}{8}$

39 凱利的房間有一張矩形海報。海報如下圖所示。



凱利的海報面積是多少平方英尺？

A 5

B 6

C 10

D 12

40 佩雷斯女士在 5 天裡一共開車 40 英里。她每天開車的英里數相同。佩雷斯女士每天開車多少英里？

A 5

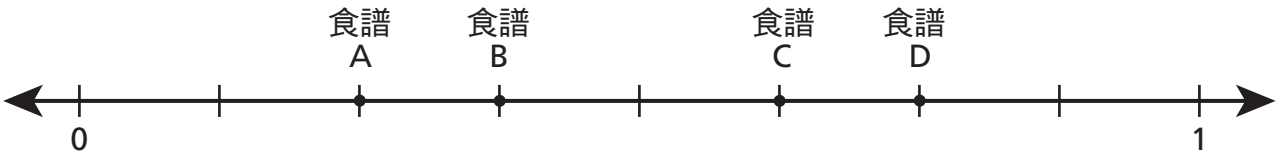
B 7

C 8

D 9

繼續

41 為進行一場餅乾義賣活動，學生用四份不同的食譜來烘焙餅乾。下面的數軸說明了每份食譜需要一杯牛奶的幾分之幾。



哪份食譜需要 $\frac{3}{8}$ 杯牛奶？

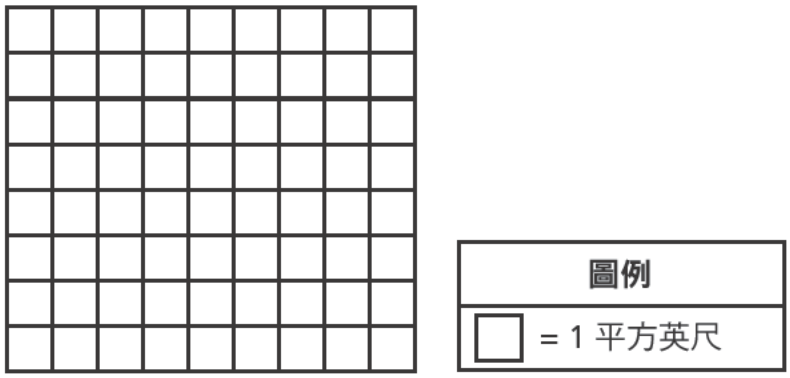
A 食譜 A

B 食譜 B

C 食譜 C

D 食譜 D

43 下圖代表金在她的地下室粉刷的牆壁。



金粉刷的牆壁面積是多少平方英尺？

A 17

B 34

C 64

D 72

44 康納用吸管搭出了 9 個形狀。每個形狀都用了 5 支吸管。康納用另外 15 支吸管搭出了更多的形狀。康納搭出所有這些形狀用的吸管總數是多少？

A 20

B 29

C 45

D 60

停止作答

3 年級

2017 Common Core
數學考試
第 2 卷

2017 年 5 月 2 至 4 日

Grade 3

2017 Common Core
Mathematics Test
Book 2

May 2–4, 2017

姓名：_____

Chinese Edition

Grade 3 Common Core
Mathematics Test
Book 3
May 2–4, 2017

紐約州考試計劃
數學考試
第 3 卷

3 年級

2017 年 5 月 2 至 4 日

Released Questions

第 3 卷

考試建議

以下建議可協助你獲得好成績：

- 在回答問題之前，仔細閱讀每一試題，並好好思考一下答案後再作答。
- 本次考試提供一把尺子讓你使用。考試中如有需要，可以使用尺子。
- 如果有相關要求，請寫出你的計算過程。

45 用 1 作為分子，寫出一個分數，其值小於 $\frac{1}{3}$。

答案 _____

解釋為什麼你選擇的答案小於 $\frac{1}{3}$。

答案

_____

_____

_____

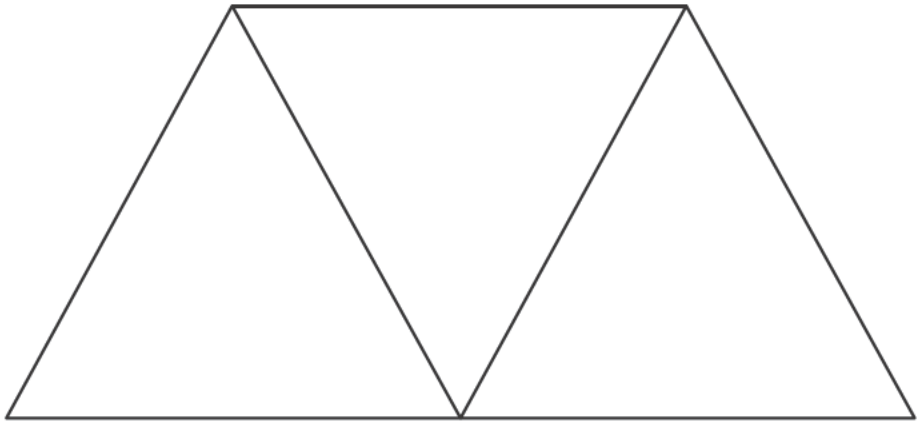
繼續

46 帕蒂在一個袋子中裝入 40 個彈珠。每個彈珠的質量都是 3 克。請問這袋彈珠的總重量是多少？

請寫出你的計算過程。

答案 _____ 克

47 韋德將三個同樣大小和形狀的三角形組合起來，畫出了下面的形狀。



每個三角形占整個形狀面積的幾分之幾？

答案 _____

請解釋你如何確認你的答案正確。

_____

_____

_____

繼續

48 萊斯利說 5 乘以一個偶數得出的乘積始終是一個偶數。萊斯利的陳述正確嗎？

請解釋你的答案。

49 魯伊斯太太為一個派對購買了 5 袋氣球。每袋中都有 70 個氣球。安迪說，魯伊斯太太一共買了 75 個氣球。安迪說錯了。

安迪在計算氣球總數時犯了什麼錯誤？

_____

_____

_____

魯伊斯太太一共買了多少氣球？

請寫出你的計算過程。

答案 _____ 氣球

繼續

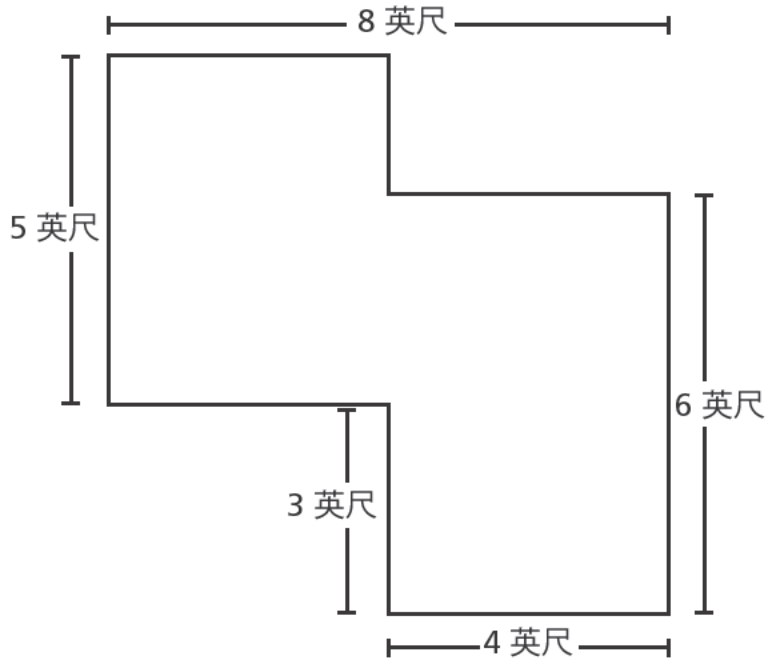
50 一個樂隊有 36 名成員。他們被平均排成 6 行。每行有多少名樂隊成員？

請寫出你的計算過程。

能否將這 36 名樂隊成員正好排成 7 等行？為什麼能或為什麼不能？

請解釋你的答案。

51 一位園丁正在畫一個新院子的草圖。她畫出了下面這張圖代表新草坪的大小和形狀。



這位園丁如何計算出新草坪的總面積？請描述她能夠使用的計算過程。

新草坪的總面積是多少？

答案 _____ 平方英尺

繼續

52 阿瑪尼女士和佈雷克先生各自為自己的教室訂購了用品。下面顯示了用品的價格。

教室用品

用品	價格
鉛筆盒	$3
盒裝蠟筆	$4
袋裝資料夾	$2

阿瑪尼女士訂購了 7 盒鉛筆和 9 袋資料夾。佈雷克先生訂購了 9 盒蠟筆。阿瑪尼女士訂購的用品價格與佈雷克先生訂購的用品價格之間的差是多少？

請寫出你的計算過程。

價格之差 $_____

停止作答

3 年級

2017 Common Core 數學考試

第 3 卷

2017 年 5 月 2 至 4 日

Grade 3

2017 Common Core Mathematics Test

Book 3

May 2–4, 2017

THE STATE EDUCATION DEPARTMENT
THE UNIVERSITY OF THE STATE OF NEW YORK / ALBANY, NY 12234
2017 Mathematics Tests Map to the Standards
Released Questions on EngageNY

Grade 3 Question	Type	Key	Points	Standard	Cluster	Secondary Standard(s)	Multiple Choice Questions: Percentage of Students Who Answered Correctly (P-Value)	Constructed Response Questions: Average Points Earned	Constructed Response Questions: P-Value (Average Points Earned ÷ Total Possible Points)
Book 1									
1	Multiple Choice	C	1	CCSS.Math.Content.3.NF.A.1	Number and Operations—Fractions		0.76		
2	Multiple Choice	A	1	CCSS.Math.Content.3.OA.A.4	Operations and Algebraic Thinking		0.90		
5	Multiple Choice	A	1	CCSS.Math.Content.3.MD.B.3	Measurement and Data		0.51		
6	Multiple Choice	C	1	CCSS.Math.Content.3.OA.D.8	Operations and Algebraic Thinking		0.56		
7	Multiple Choice	B	1	CCSS.Math.Content.3.NBT.A.1	Number and Operations in Base Ten		0.62		
8	Multiple Choice	C	1	CCSS.Math.Content.3.OA.A.2	Operations and Algebraic Thinking		0.67		
9	Multiple Choice	C	1	CCSS.Math.Content.3.NF.A.2b	Number and Operations—Fractions		0.74		
13	Multiple Choice	A	1	CCSS.Math.Content.3.MD.B.3	Measurement and Data		0.66		
16	Multiple Choice	D	1	CCSS.Math.Content.3.NF.A.1	Number and Operations—Fractions		0.88		
17	Multiple Choice	B	1	CCSS.Math.Content.3.OA.D.8	Operations and Algebraic Thinking		0.44		
20	Multiple Choice	C	1	CCSS.Math.Content.3.NF.A.2a	Number and Operations—Fractions		0.38		
21	Multiple Choice	D	1	CCSS.Math.Content.3.OA.B.6	Operations and Algebraic Thinking		0.44		
22	Multiple Choice	D	1	CCSS.Math.Content.3.NF.A.3a	Number and Operations—Fractions		0.51		
Book 2									
23	Multiple Choice	D	1	CCSS.Math.Content.3.MD.C.5b	Measurement and Data		0.94		
24	Multiple Choice	A	1	CCSS.Math.Content.3.OA.A.4	Operations and Algebraic Thinking		0.73		
25	Multiple Choice	C	1	CCSS.Math.Content.3.NF.A.1	Number and Operations—Fractions		0.85		

Released Questions on EngageNY

Grade 3 Question	Type	Key	Points	Standard	Cluster	Secondary	Multiple Choice Questions: Percentage of Students Who Answered Correctly (P-Value)	Constructed Response Questions: Average Points Earned	Constructed Response Questions: P-Value (Average Points Earned ÷ Total Possible Points)
26	Multiple Choice	D	1	CCSS.Math.Content.3.OA.A.2	Operations and Algebraic Thinking		0.63		
27	Multiple Choice	A	1	CCSS.Math.Content.3.MD.C.7a	Measurement and Data		0.91		
29	Multiple Choice	B	1	CCSS.Math.Content.3.OA.B.5	Operations and Algebraic Thinking		0.59		
30	Multiple Choice	B	1	CCSS.Math.Content.3.NBT.A.1	Number and Operations in Base Ten		0.60		
31	Multiple Choice	D	1	CCSS.Math.Content.3.OA.D.8	Operations and Algebraic Thinking		0.59		
32	Multiple Choice	B	1	CCSS.Math.Content.3.OA.A.3	Operations and Algebraic Thinking		0.76		
35	Multiple Choice	C	1	CCSS.Math.Content.3.MD.A.1	Measurement and Data		0.67		
36	Multiple Choice	D	1	CCSS.Math.Content.3.OA.B.6	Operations and Algebraic Thinking		0.78		
37	Multiple Choice	D	1	CCSS.Math.Content.3.NF.A.3b	Number and Operations—Fractions		0.60		
38	Multiple Choice	B	1	CCSS.Math.Content.3.NF.A.3d	Number and Operations—Fractions		0.60		
39	Multiple Choice	B	1	CCSS.Math.Content.3.MD.C.7b	Measurement and Data		0.64		
40	Multiple Choice	C	1	CCSS.Math.Content.3.OA.A.3	Operations and Algebraic Thinking		0.74		
41	Multiple Choice	B	1	CCSS.Math.Content.3.NF.A.2b	Number and Operations—Fractions		0.76		
43	Multiple Choice	D	1	CCSS.Math.Content.3.MD.C.6	Measurement and Data		0.88		
44	Multiple Choice	D	1	CCSS.Math.Content.3.OA.D.8	Operations and Algebraic Thinking		0.53		
Book 3									
45	Constructed Response		2	CCSS.Math.Content.3.NF.A.3d	Number and Operations—Fractions			0.98	0.49
46	Constructed Response		2	CCSS.Math.Content.3.MD.A.2	Measurement and Data			1.29	0.65

Released Questions on EngageNY

Grade 3 Question	Type	Key	Points	Standard	Cluster	Secondary	Multiple Choice Questions: Percentage of Students Who Answered Correctly (P-Value)	Constructed Response Questions: Average Points Earned	Constructed Response Questions: P-Value (Average Points Earned ÷ Total Possible Points)
47	Constructed Response		2	CCSS.Math.Content.3.G.A.2	Geometry			1.15	0.58
48	Constructed Response		2	CCSS.Math.Content.3.OA.D.9	Operations and Algebraic Thinking			0.97	0.49
49	Constructed Response		2	CCSS.Math.Content.3.NBT.A.3	Number and Operations in Base Ten			1.20	0.60
50	Constructed Response		3	CCSS.Math.Content.3.OA.A.3	Operations and Algebraic Thinking			1.80	0.60
51	Constructed Response		3	CCSS.Math.Content.3.MD.C.7d	Measurement and Data			0.90	0.30
52	Constructed Response		3	CCSS.Math.Content.3.OA.D.8	Operations and Algebraic Thinking			1.44	0.48

*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.