New York State Testing Program
Grade 4
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.

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.

姓名：

Chinese (Traditional) Edition
Grade 4
Mathematics Test
Session 1
v202

紐約州考試計劃
數學考試
第 1 卷

4 年級

v202

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。

- 本次考試提供數學工具讓你使用（一把尺子和一個量角器）。你可以自行決定使用各個工具的時機。考試當中只要你覺得使用數學工具能協助你解答就可以使用。

1　塔圖姆每天放學後都會遛狗 $\frac{2}{3}$ 英里。她 5 天遛狗多少英里？

A　$\frac{7}{3}$

B　$\frac{10}{3}$

C　$\frac{2}{15}$

D　$\frac{10}{15}$

2　傑登在比賽中所獲得的分數小於 **45**，並且是 **7** 的倍數。請問傑登獲得了多少分？

A　17

B　35

C　52

D　70

3　請問哪個比較是正確的？

A　$\frac{2}{3} = \frac{8}{12}$

B　$\frac{4}{9} = \frac{8}{9}$

C　$\frac{3}{4} > \frac{9}{10}$

D　$\frac{2}{4} > \frac{2}{3}$
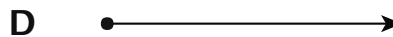
繼續
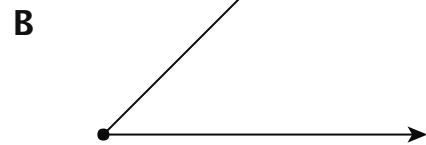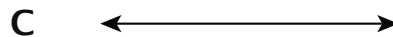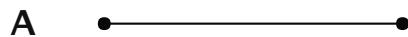
4 棒球場分三個不同的觀看區。可以坐在每個觀看區的人數如下所述。

- 紅色觀看區可容納 200 人

- 藍色觀看區可容納的人數比紅色觀看區少 20 人

- 綠色觀看區可容納的人數是藍色觀看區的 2 倍

可以坐在棒球場的總人數是多少？

A 260

B 380

C 640

D 740

5 請問哪個圖是線段的範例？

A ●————————●   **C** ←————————→

B   **D** ●————————→

6 伊茲家的院子裡有橘子樹。他們摘了 126 個橘子。他們為自己保留了 10個橘子，其餘平均分給了其他 4 個家庭。請問哪個方程式可以用來確定其他每個家庭收到的橘子數量 n？
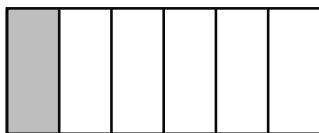
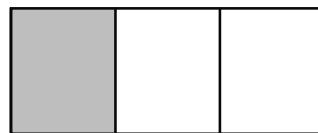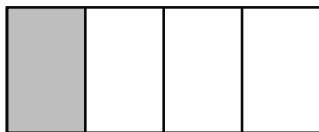**A** $(126 - 4) \div 10 = n$

B $(126 - 10) \div 4 = n$

C $(126 + 10) \div 4 = n$

D $(126 + 4) \div 10 = n$

7 請問哪個分數模型的陰影區域相當於 $\dfrac{3}{12}$？

A

C

B

D

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8 以下所示角 EFG 的測量值是 106 度。
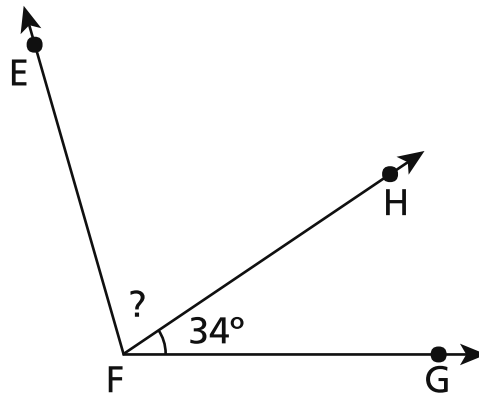
請問角 EFH 是多少度？

A   34

B   56

C   72

D   140

9 請問哪個分數清單按從最小值到最大值的順序排列？

A $\dfrac{1}{2}, \dfrac{1}{4}, \dfrac{3}{4}$

B $\dfrac{1}{4}, \dfrac{1}{2}, \dfrac{3}{4}$

C $\dfrac{1}{4}, \dfrac{3}{4}, \dfrac{1}{2}$

D $\dfrac{1}{2}, \dfrac{3}{4}, \dfrac{1}{4}$

10 貝琪的水壺中有 $4\frac{1}{3}$ 杯檸檬水。她將 $1\frac{2}{3}$ 杯倒入玻璃杯。請問水壺中還剩多少檸檬水？

A $2\frac{2}{3}$ 杯

B $3\frac{1}{3}$ 杯

C $5\frac{3}{3}$ 杯

D $5\frac{3}{6}$ 杯

11 請問以下表達式的值是多少？

$$2,816 \times 7$$

A 14,572

B 14,672

C 19,612

D 19,712

12 請問表達式 $2,314 \div 4$ 的商是多少？

A 508

B 508 r2

C 578

D 578 r2

繼續

13 教師購買下列資料夾。

- 5 盒紅色資料夾，每盒包含 36 個資料夾
- 6 盒藍色資料夾，每盒包含 32 個資料夾

請問哪個數字**最接近**教師購買的紅色和藍色資料夾的總數？

A 275

B 380

C 440

D 550

14 下面哪個數字是 400 的 9 倍？

A 391

B 409

C 3,600

D 3,609

15 當四捨五入到最接近的百位時，哪兩個數字都四捨五入到 1,500？

A 1,399 和 1,599

B 1,449 和 1,549

C 1,457 和 1,547

D 1,489 和 1,589

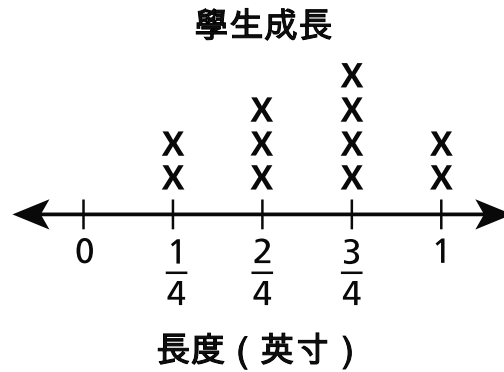**16** 富勒先生想在他長方形的院子裡建一個圍欄。院子的寬是 55 英尺，長是 75 英尺。富勒先生需要多少英尺圍欄？

A　　130

B　　260

C　　3,905

D　　4,125

17 貝克女士班上的一些學生記錄了他們四個月的身高。 下面的分佈點線圖顯示了每個學生在四個月結束時增長的身高。

學生成長

X
X X
X X X
X X X X
X X X X

$$0 \quad \frac{1}{4} \quad \frac{2}{4} \quad \frac{3}{4} \quad 1$$

長度（英寸）

請問增長最多的學生和增長最少的學生之間的差異是多少英寸？

A　$\dfrac{1}{4}$

B　$\dfrac{2}{4}$

C　$\dfrac{3}{4}$

D　1

繼續

18 數 29,461 中的數字 9 的值是以下哪個數中的數字 9 的值的 10 倍？

A   46,195

B   53,982

C   89,354

D   93,610

19 以下數字模式遵循某一規則。

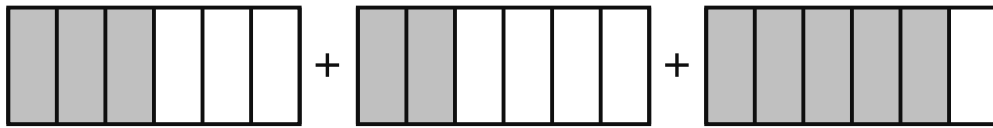2, 8, 32, 128, . . .

請問以下哪個數字模式用的是同一個規則？

A   4, 8, 12, 16, . . .

B   1, 4, 16, 64, . . .

C   3, 7, 11, 15, . . .

D   6, 12, 24, 48, . . .

20 下面三個模型都用陰影來表示不同的分數。

模型陰影部分所代表的分數之和是多少？

A $\dfrac{10}{18}$

B $\dfrac{8}{10}$

C $\dfrac{10}{8}$

D $\dfrac{10}{6}$

21 在下列所示的圖中最多可以畫多少條對稱線？
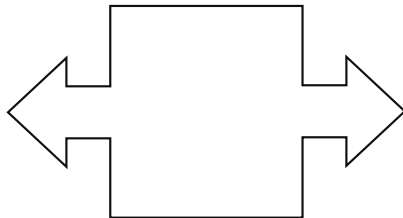
A 0

B 1

C 2

D 4

繼續

22 以度為單位，以下哪個值相當於一個圓的 $\frac{1}{360}$ ？

    A   1

    B   90

    C   180

    D   360

23 請問哪個比較語句描述了下面的模型？

24

| 6 | 6 | 6 | 6 |
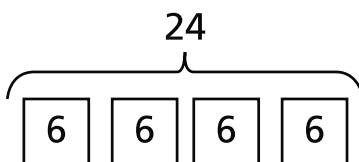
    A   6 是 4 的 24 倍

    B   24 是 6 的 4 倍

    C   24 的 4 倍是 6

    D   6 的 6 倍是 24

4 年級
**數學考試
第 1 卷**
v202

Grade 4
**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 4 Released Questions

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