



New York State
EDUCATION DEPARTMENT
Knowledge > Skill > Opportunity

**New York State Testing Program
Grade 4
Mathematics Test**

Released Questions

2022

New York State administered the Mathematics Tests in May 2022 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 2022 Exams

Background

As in past years, SED is releasing large portions of the 2022 NYS Grades 3-8 English Language Arts and Mathematics test materials for review, discussion, and use.

For 2022, included in these released materials are at least 75 percent of the test questions that appeared on the 2022 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 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 <http://www.nysed.gov/state-assessment/grades-3-8-ela-and-math-test-manuals>.

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 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 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.

Non: _____



Haitian Creole Edition
Grade 4 2022
Mathematics Test
Session 1
April 26–28, 2022

**Pwogram Egzamen
Eta Nouyòk
Egzamen Matematik
Seyans 1**

Ane 4

26–28 Avril 2022

RELEASED QUESTIONS

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Seyans 1



KONSÈY POU PRAN EGZAMEN AN

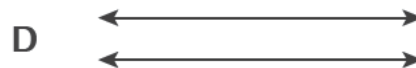
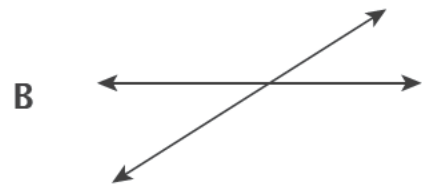
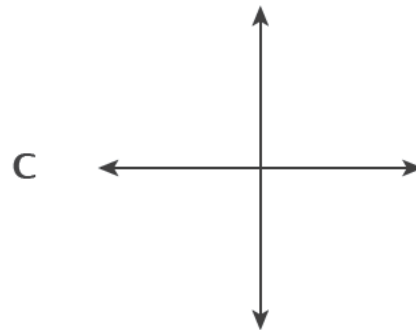
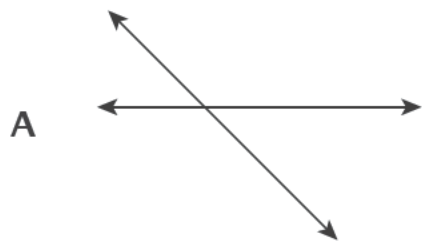
Men kèk sijesyon pou ede ou bay pi bon rannman:

- Li chak kesyon avèk atansyon epi reflechi sou chak repons anvan ou fè chwa ou.
- Yo ba w zouti matematik (yon règ ak yon rapòtè) pou itilize pandan tès la. Ou kapab decide lè ou panse chak zouti kapab itil ou. Ou ta dwe sèvi ak zouti matematik yo nenpòt lè ou panse l ap ede w reponn kesyon an.

1 Julia deplase bra yon jiwèt yon degre alafwa 45 fwa. Konbyen degre total Julia deplase bra jiwèt la?

- A 1
- B 45
- C 90
- D 360

2 Ki pè dwat ki sanble pèpandikilè?



KONTINYE

8

Atè nan yon seksyon rektangilè yon pak gen yon longè 24 pye ak yon lajè 12 pye. Kisa ki pye kare sifas atè a nan seksyon sa a nan pak la?

- A 36
- B 72
- C 144
- D 288

9

Konbyen fwa pi gran, valè ki reprezante ak chif 6 nan nonm 6.419 la ye, pase valè ki reprezante nan chif 6 nan nonm 84.362 ?

- A 10
- B 100
- C 1.000
- D 10.000

KONTINYE

13 Ki ekwasyon ki reprezante deklarasyon ki anba la a?

karantuit se sis fwa menm kantite ak uit

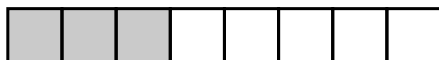
A $48 - 6 = 8$

B $48 + 6 = 8$

C $48 = 6 \times 8$

D $48 = 6 + 8$

14 Chak nan modèl yo ki anba la a kolore an gri pou reprezante yon fraksyon diferan.



Konbyen sòm fraksyon yo ki reprezante ak pati ki kolore an gri nan modèl yo?

A $\frac{1}{8}$

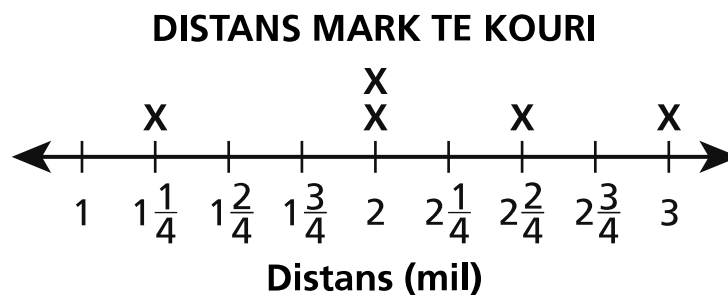
B $\frac{3}{8}$

C $\frac{4}{8}$

D $\frac{7}{8}$

KONTINYE

- 16 Dyagram ak pwen an montre distans Mark te kouri nan chak senk jou nan semèn pase a.



Konbyen mil ototal Mark te kouri semèn pase?

- A $8\frac{1}{4}$
- B $8\frac{3}{4}$
- C $10\frac{2}{4}$
- D $10\frac{3}{4}$
- 17 Yon nonm, lè yo awondi li nan santèn ki pi pre a, se 3.700. Ki nonm ki **pa** t ap nonm lan avan yo te awondi l?
- A 3.614
- B 3.650
- C 3.720
- D 3.749

KONTINYE

21 Ki lis ki montre sèlman fraksyon mwens pase $\frac{1}{2}$?

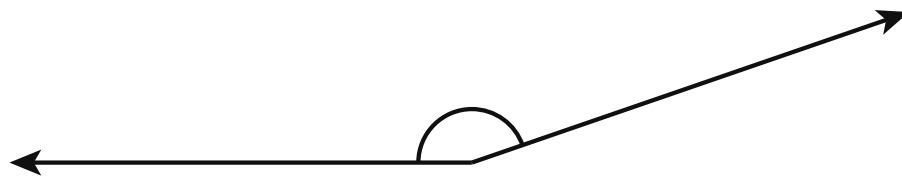
A $\frac{1}{3}, \frac{1}{5}, \frac{1}{8}$

B $\frac{2}{3}, \frac{2}{4}, \frac{2}{5}$

C $\frac{1}{4}, \frac{5}{8}, \frac{6}{12}$

D $\frac{3}{4}, \frac{5}{6}, \frac{7}{10}$

22 Ki mezi ang ki parèt pi ba a?



A 19°

B 24°

C 156°

D 161°

KONTINYE

23 Y ap vann gato chokola nan yon aktivite pou sanble lajan.

- gen 3 plato gato chokola pou vann
- chak plato gen 5 ranje ki gen 5 gato chokola nan chak ranje
- yo vann chak gato chokola pou \$2

Konbyen kòb yo fè lè yo vann tout gato chokola yo?

- A** \$25
- B** \$50
- C** \$75
- D** \$150

24 Ki mezi a, an degre, yon ang ki reprezante $\frac{1}{4}$ yon sèk konplè?

- A** 25
- B** 45
- C** 90
- D** 180

KONTINYE

27 Kisa valè 7.839×9 ye?

A 70.471

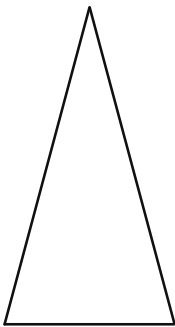
B 70.551

C 71.471

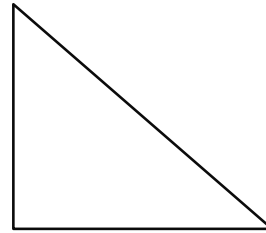
D 71.551

28 Ki figi jeyometri ki sanble li se yon triyang rektang?

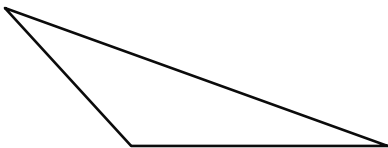
A



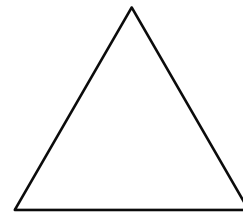
C



B



D



KONTINYE

Ane 4
2022
Egzamen Matematik
Seyans 1
26–28 Avril 2022

Grade 4
2022
Mathematics Test
Session 1
April 26–28, 2022

Non: _____



Haitian Creole Edition
Grade 4 2022
Mathematics Test
Session 2
April 26–28, 2022

**Pwogram Egzamen
Eta Nouyòk
Egzamen Matematik
Seyans 2**

Ane 4

26–28 Avril 2022

RELEASED QUESTIONS

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Seyans 2



KONSÈY POU PRAN EGZAMEN AN

Men kèk sijesyon pou ede ou bay pi bon rannman:

- Li chak kesyon avèk atansyon epi reflechi sou chak repons anvan ou fè chwa ou oswa ekri repons ou.
- Yo ba w zouti matematik (yon règ ak yon rapòtè) pou itilize pandan tès la. Ou kapab deside lè ou panse chak zouti kapab itil ou. Ou ta dwe sèvi ak zouti matematik yo nenpòt lè ou panse l ap ede w reponn kesyon an.
- Pa bliye montre kijan w fè jwenn repons lan lè yo mande ou sa.

31 Mesye Jonus te kòmande yon pitza pou pote lakay li. Pitit li yo manje $\frac{4}{8}$ nan pitza a epi Mesye Jonus manje $\frac{2}{8}$ nan pitza a. Li sere rès pitza a pou pita. Ki ekwasyon ou ta kapab itilize pou reprezante pitza a an antye?

A $\frac{2}{8} + \frac{3}{8} + \frac{4}{8} = 1$

B $\frac{1}{8} + \frac{2}{8} + \frac{4}{8} = 1$

C $\frac{2}{8} + \frac{2}{8} + \frac{4}{8} = 1$

D $\frac{2}{8} + \frac{4}{8} + \frac{4}{8} = 1$

32 Matt gen 4 plim. Sue gen 4 fwa kantite plim Matt genyen. Chris gen 2 fwa kantite plim Sue genyen. Ki ekwasyon ou te ka itilize pou detèmine konbyen plim Chris genyen?

A $4 + 4 + 2 = \underline{\quad ? \quad}$

B $4 + 4 \times 2 = \underline{\quad ? \quad}$

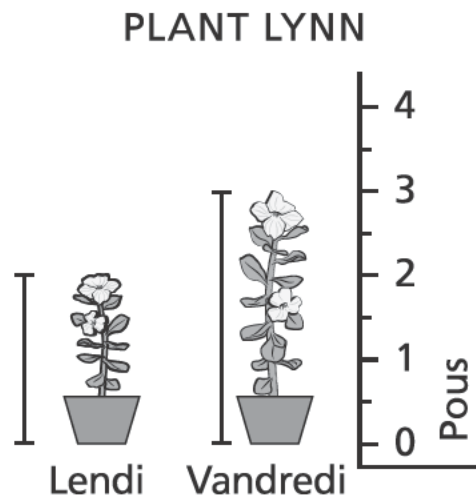
C $4 \times 4 \times 2 = \underline{\quad ? \quad}$

D $4 \times 4 + 2 = \underline{\quad ? \quad}$

KONTINYE

33

Lynn mezire wotè yon plant nan lendi epi li mezire li ankò nan vandredi. Dyagram ki anba la a montre wotè plant lan, an pous, chak jou.



Konbyen pous plant la te grandi, ant lendi ak vandredi?

- A 1
- B 2
- C 3
- D 5

34

Sam gen 12 kat bezbòl. Aly gen 4 fwa kantite kat bezbòl Sam genyen. Ki ekwasyon nou kapab itilize pou jwenn kantite total kat bezbòl Aly genyen?

- A $12 \div 4 = 3$
- B $12 - 4 = 8$
- C $12 + 4 = 16$
- D $12 \times 4 = 48$

KONTINYE

35 Ki valè ekspresyon ki anba la a?

$$9\frac{4}{10} - 2\frac{8}{10}$$

A $6\frac{4}{10}$

B $6\frac{6}{10}$

C $7\frac{4}{10}$

D $7\frac{6}{10}$

36 Cam gen 35 biyè pou itilize nan yon pak lwazi. Li vle itilize mezi biyè li kapab sou mezi manèj li kapab. Li bezwen 4 biyè pou chak manèj. Konbyen biyè Cam ap rete aprè li monte mezi manèj li kapab?

A 3

B 4

C 8

D 9

KONTINYE

37 Elèv nan klas Madmwazèl Lee yo sanble 268 liv pou fè kado bay yon bibliyotèk. Yo te anbale liv yo nan 4 gran bwat. Yo te anbale menm kantite liv yo nan chak bwat. Konbyen liv yo te anbale nan chak bwat?

- A 52
- B 67
- C 842
- D 1.072

38 Gen 24 elèv nan klas katriyèm ane Madmwazèl Smyth la. Gen 6 fwa kantite elèv klas katriyèm ane nan lekòl la pase nan klas Madmwazèl Smyth la. Ki ekwasyon ou kapab itilize pou jwenn kantite total elèv nan katriyèm ane nan lekòl la?

- A $24 \times \underline{\quad ? \quad} = 6$
- B $24 \div \underline{\quad ? \quad} = 6$
- C $24 \times 6 = \underline{\quad ? \quad}$
- D $24 + 6 = \underline{\quad ? \quad}$

KONTINYE

39

Gen deskripsyon relasyon ant biyè ak pwen yo te genyen nan yon match anba la a.

- yo genyen 1 biyè pou chak 9 pwen yo genyen
- yo genyen 2 biyè pou chak 18 pwen yo genyen
- yo genyen 3 biyè pou chak 27 pwen yo genyen

Si modèl sa a kontinye, konbyen biyè y ap genyen si yo genyen 54 pwen?

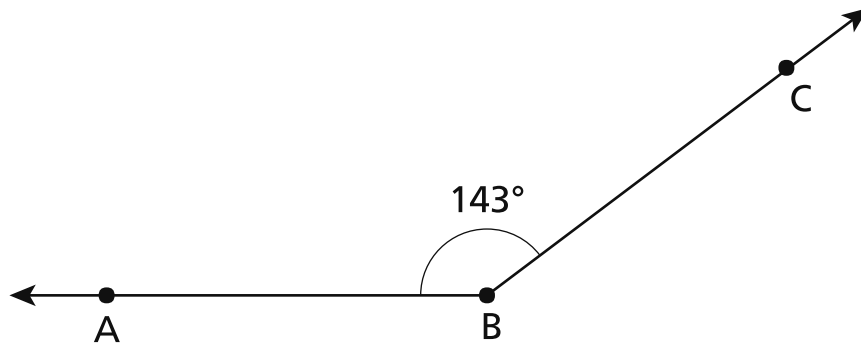
Montre kijan ou fè pou jwenn repons lan.

Repons _____ biyè

KONTINYE

40

Dyagram ki anba la a montre ang ABC.



Yo ajoute vektè BD nan dyagram nan pou kreye ang dwat ABD ak nouvo ang CBD. Ki mezi, an degre, ang CBD ye?

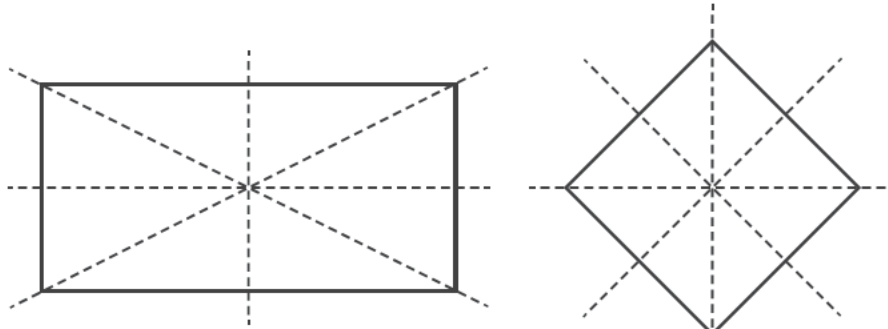
Montre kijan ou fè pou jwenn repons lan.

Repons _____ degre

KONTINYE

41

Yo te ajoute liy ak ti pwen yo nan de figi ki anba la a pou reprezante dwat simetri.



Figi A

Figi B

Ki figi ki montre sèlman dwat simetri ki kòrèk?

Eksplike kijan ou fè konnen repons ou an kòrèk.

KONTINYE

42

Popilasyon Vil A se katreven kat mil de san sis. Popilasyon Vil B reprezante ak ekspresyon $80.000 + 4.000 + 200 + 10 + 6$. Ekri yon fraz nimerik ak $>$, $<$, oswa $=$ pou konpare popilasyon Vil A ak Vil B.

Eksplike kijan ou fè konnen repons ou an kòrèk.

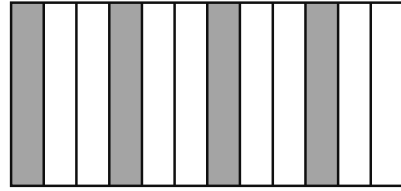
KONTINYE

43

Modèl yo ki anba la a se menm gwosè epi yo divize an pati egalego. Pati ki kolore an gri nan chak modèl reprezante yon fraksyon nan yon antye.



Modèl A



Modèl B

Konbyen pati an plis nan Modèl B bezwen kolore an gri pou fè fraksyon ki reprezante ak Modèl B a ekivalan ak fraksyon ki reprezante ak Modèl A? Pa bliye mete nouvo fraksyon ki reprezante ak Modèl B nan repons ou an.

Eksplike kijan ou fè konnen repons ou an kòrèk.

KONTINYE

44

Yon seksyon nan yon bibliyotèk gen 36 etajè liv. Chak etajè kenbe egzakteman 48 liv ki prèske menm gwosè a. Konbyen liv ototal tout etajè yo pral kenbe?

Montre kijan ou fè pou jwenn repons lan.

Repons _____ liv

KONTINYE

45

Yon elèv ap itilize blòk an bwa pou konstwi de tou wotè diferan. Tout blòk yo gen menm gwosè a epi wotè yo se $\frac{3}{4}$ pous. Wotè tou ki kout la se 5 blòk epi wotè tou ki wo a se 9 blòk. Kisa ki diferans nan wotè, an pous, ant tou ki kout la ak tou ki wo a?

Montre kijan ou fè pou jwenn repons lan.

Repons _____ pous

KANPE LA

Ane 4
2022
Egzamen Matematik
Seyans 2
26–28 Avril 2022

Grade 4
2022
Mathematics Test
Session 2
April 26–28, 2022

THE STATE EDUCATION DEPARTMENT
 THE UNIVERSITY OF THE STATE OF NEW YORK / ALBANY, NY 12234
 2022 Mathematics Tests Map to the Standards
 Grade 4

Question	Type	Key	Points	Standard	Cluster
Session 1					
1	Multiple Choice	B	1	CCSS.Math.Content.4.MD.C.5b	Measurement and Data
2	Multiple Choice	C	1	CCSS.Math.Content.4.G.A.1	Geometry
8	Multiple Choice	D	1	CCSS.Math.Content.4.MD.A.3	Measurement and Data
9	Multiple Choice	B	1	CCSS.Math.Content.4.NBT.A.1	Number and Operations in Base Ten
13	Multiple Choice	C	1	CCSS.Math.Content.4.OA.A.1	Operations and Algebraic Thinking
14	Multiple Choice	D	1	CCSS.Math.Content.4.NF.B.3a	Number and Operations - Fractions
16	Multiple Choice	D	1	CCSS.Math.Content.4.MD.B.4	Measurement and Data
17	Multiple Choice	A	1	CCSS.Math.Content.4.NBT.A.3	Number and Operations in Base Ten
21	Multiple Choice	A	1	CCSS.Math.Content.4.NF.A.2	Number and Operations - Fractions
22	Multiple Choice	D	1	CCSS.Math.Content.4.MD.C.6	Measurement and Data
23	Multiple Choice	D	1	CCSS.Math.Content.4.OA.A.3	Operations and Algebraic Thinking
24	Multiple Choice	C	1	CCSS.Math.Content.4.MD.C.5a	Measurement and Data
27	Multiple Choice	B	1	CCSS.Math.Content.4.NBT.B.5	Number and Operations in Base Ten
28	Multiple Choice	C	1	CCSS.Math.Content.4.G.A.2	Geometry
Session 2					
31	Multiple Choice	C	1	CCSS.Math.Content.4.NF.B.3d	Number and Operations - Fractions
32	Multiple Choice	C	1	CCSS.Math.Content.4.OA.A.2	Operations and Algebraic Thinking
33	Multiple Choice	A	1	CCSS.Math.Content.3.MD.B.4	Measurement and Data
34	Multiple Choice	D	1	CCSS.Math.Content.4.OA.A.1	Operations and Algebraic Thinking
35	Multiple Choice	B	1	CCSS.Math.Content.4.NF.B.3c	Number and Operations - Fractions
36	Multiple Choice	A	1	CCSS.Math.Content.4.OA.A.3	Operations and Algebraic Thinking
37	Multiple Choice	B	1	CCSS.Math.Content.4.NBT.B.6	Number and Operations in Base Ten
38	Multiple Choice	C	1	CCSS.Math.Content.4.OA.A.2	Operations and Algebraic Thinking
39	Constructed Response		2	CCSS.Math.Content.4.OA.C.5	Operations and Algebraic Thinking
40	Constructed Response		2	CCSS.Math.Content.4.MD.C.7	Measurement and Data
41	Constructed Response		2	CCSS.Math.Content.4.G.A.3	Geometry
42	Constructed Response		2	CCSS.Math.Content.4.NBT.A.2	Number and Operations in Base Ten
43	Constructed Response		2	CCSS.Math.Content.4.NF.A.2	Number and Operations - Fractions
44	Constructed Response		2	CCSS.Math.Content.4.NBT.B.5	Number and Operations in Base Ten
45	Constructed Response		3	CCSS.Math.Content.4.NF.B.4c	Number and Operations - Fractions

*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.