

New Mexico NM-MSSA Grade 3 Math Practice

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NEW MEXICO MEASURES
OF STUDENT SUCCESS AND
ACHIEVEMENT

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NM-MSSA

Mathematics

Grade 3 · Practice Test

Print Student Name

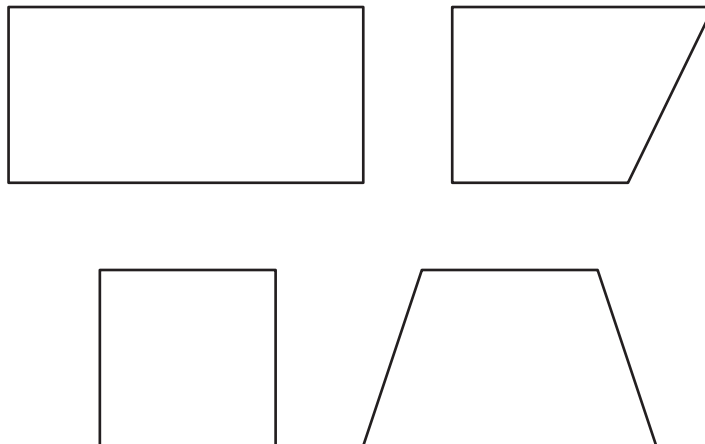


Mathematics Session 1

DIRECTIONS

Today you will take a test in mathematics. For this test, you will answer different types of questions. Some of the questions may look different from test questions you have seen before, and some may ask about material that is new to you, but it is important to do your best. If you are not sure of the answer to a question, you should still try to answer it. You may NOT use a calculator to answer the questions in this session.

1. Look at these shapes.

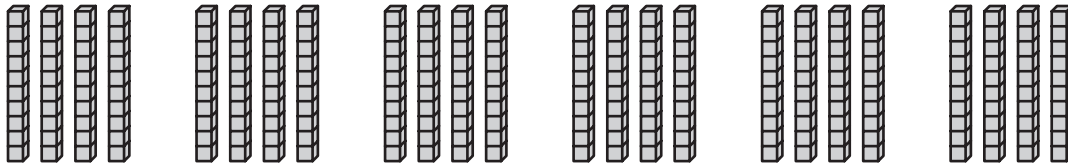


Which name tells about **all** the shapes in this group?

- Ⓐ rhombus
- Ⓑ rectangle
- Ⓒ quadrilateral
- Ⓓ parallelogram

GO ON →

2. A model with base ten blocks is shown.

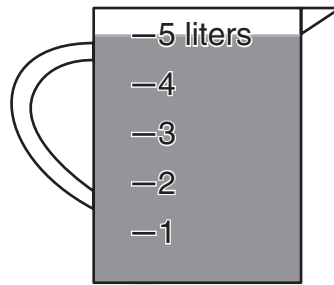


Which equation does this model show?

- (A) $4 \times 60 = 240$
(B) $6 \times 40 = 240$
(C) $4 \times 50 = 200$
(D) $5 \times 40 = 200$
3. Ms. Smith has 4 fish tanks. There are 9 fish in each tank. Which number sentence can be used to find how many fish Ms. Smith has in all?

- (A) $4 + \square = 9$
(B) $4 + 9 = \square$
(C) $4 \times \square = 9$
(D) $4 \times 9 = \square$

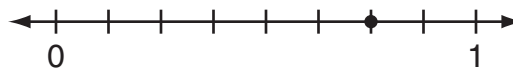
4. Alex brought this amount of punch to the class party.



Alex's classmates drank 3 liters of punch at the party.

How many liters of punch were left after the party?

- (A) 2 liters
 - (B) 3 liters
 - (C) 5 liters
 - (D) 8 liters
5. Danny collects football cards and baseball cards. He put a point on this number line to show the fraction of his cards that are football cards.



Based on the number line, which could be true?

- (A) Danny has 6 football cards and 2 baseball cards.
- (B) Danny has 8 football cards and 2 baseball cards.
- (C) Danny has 2 football cards and 6 baseball cards.
- (D) Danny has 2 football cards and 8 baseball cards.

6. Kato sees 2 colors of paper plates at the store. There are 4 packs of plates of each color. Each pack has 50 plates.

Kato knows to find the total number of paper plates on the shelf he needs to multiply $2 \times 4 \times 50$.

Select **two** other ways that can be used to find the total number of paper plates.

- Ⓐ $2 \times 4 \times 5 \times 10$
- Ⓑ $2 \times 4 \times 5 + 10$
- Ⓒ $2 + 4 \times 5 + 10$
- Ⓓ 50, 100, 150, 200, 250, 300
- Ⓔ 50, 100, 150, 200, 250, 300, 350, 400

This question has two parts. Be sure to answer all parts of the question.

- 7.** A pet store has 150 fish in tanks. Each tank has 30 fish.
- a. Write a multiplication equation that can be used to find the number of fish tanks at the pet store.

- b. How many fish tanks are at the pet store?

8. Since $3 \times 6 = 18$, what is 6×3 ?

- Ⓐ 9
- Ⓑ 18
- Ⓒ 36
- Ⓓ 81

9. Danielle is going to add $312 + 285$.

Which plan should Danielle use to add the numbers?

- Ⓐ She should add 15 to both numbers. Then find the sum.
- Ⓑ She should subtract 12 from both numbers. Then find the sum.
- Ⓒ She should subtract 12 from the first number and add 15 to the second number. Then find the sum.
- Ⓓ She should subtract 12 from the first number and add 12 to the second number. Then find the sum.

10. Which expression shows another way to find $4 \times 3 \times 2$?

- Ⓐ 4×5
- Ⓑ 12×2
- Ⓒ 7×2
- Ⓓ 12×5

11. Look at this problem.

Cami made a bracelet one week. Each week after that, she made 1 more bracelet than the week before. How many bracelets did Cami have after 6 weeks?

To solve this problem, Maretta decided to make a table. Maretta's answer to the problem was 20 bracelets.

Week	Total Number of Bracelets
1	1
2	2
3	5
4	9
5	14
6	20

Maretta made a mistake. What mistake did Maretta make?

- (A) Maretta needed to add 1 bracelet each week, so Cami made 6 bracelets in all.
 - (B) In week 2, Maretta added 1 instead of 2 to the total from the week before.
 - (C) Each week Maretta needed to add 6 bracelets to the total number of bracelets.
 - (D) In week 5, Maretta needed to double the number of bracelets from week 4.
12. Jacob bought red balloons, white balloons, and blue balloons. He bought 8 red balloons and 12 white balloons. He bought 2 times as many blue balloons as red balloons.

How many balloons did Jacob buy in all?

- (A) 24
- (B) 30
- (C) 36
- (D) 44

- 13.** There are 7 shelves in a bookcase. Each shelf has 8 books.

How many books are in the bookcase?

- Ⓐ 15
- Ⓑ 16
- Ⓒ 54
- Ⓓ 56

This question has three parts. Be sure to answer all parts of the question.

- 14.** Wyatt is having a party. He bought

- 3 packs of stickers,
- a cake for \$25,
- balloons for \$18, and
- party hats for \$10.

Each pack of stickers has 8 sheets of stickers. Wyatt will put the same number of sheets of stickers into each of 6 gift bags.

- a. How many sheets of stickers will Wyatt put into each gift bag? Show or explain how you got your answer.

Wyatt wants to make 4 more gift bags with the same number of sheets of stickers as he used for the first 6 gift bags.

- b. How many more packs of stickers does Wyatt need to buy? Show or explain how you got your answer.

Wyatt estimates he spent less than \$40 on the cake and balloons.

- c. Is Wyatt correct? If he is correct, use estimation to explain why Wyatt is correct. If he is **not** correct, use estimation to explain why Wyatt is not correct.

15. Bob and Carly are making number patterns.
- Bob starts with an odd number, then adds 3 to find the next number.
 - Carly starts with an odd number, then adds 2 to find the next number.

What is true about the patterns?

- (A) All of the new numbers in Bob's pattern will be odd.
- (B) All of the new numbers in Bob's pattern will be even.
- (C) All of the new numbers in Carly's pattern will be odd.
- (D) All of the new numbers in Carly's pattern will be even.

16. Look at this number sentence.

$$1 \times 2 \times \boxed{?} = 10 \times 1 \times 2$$

What number belongs in the box?

- (A) 2
 - (B) 5
 - (C) 10
 - (D) 20
17. On Friday, students at a school sold 236 tickets to the school play.
- What is the total number of tickets sold rounded to **the nearest ten**?
- (A) 200
 - (B) 230
 - (C) 235
 - (D) 240

18. Which fraction makes this number sentence true?

$$\frac{2}{4} < \square$$

Ⓐ $\frac{2}{8}$

Ⓑ $\frac{1}{4}$

Ⓒ $\frac{2}{6}$

Ⓓ $\frac{3}{4}$

THIS IS THE END OF THIS SESSION.
DO NOT GO ON TO THE NEXT SESSION.



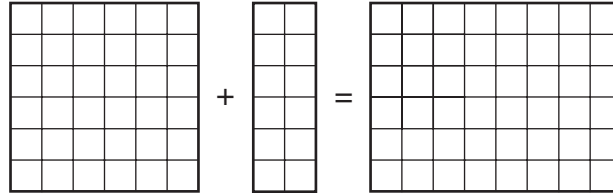
Mathematics Session 2

DIRECTIONS



Today you will take a test in mathematics. For this test, you will answer different types of questions. Some of the questions may look different from test questions you have seen before, and some may ask about material that is new to you, but it is important to do your best. If you are not sure of the answer to a question, you should still try to answer it. You **MAY** use a calculator to answer the questions in this session.

19. The rectangles in this model are covered with 1-inch squares.



The model shows the number sentence $6 \times 6 + 6 \times 2 = \square$.

What goes in the \square to make the number sentence true?

- (A) $6 + (6 + 2)$
- (B) $6 \times (6 \times 2)$
- (C) $6 + (6 \times 2)$
- (D) $6 \times (6 + 2)$

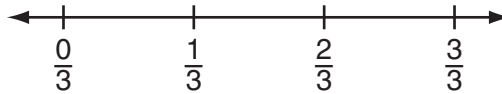


20. Greta has 48 roses and 6 vases. She wants to put the same number of roses in each vase.

Which equation can Greta use to find how many roses to put in each vase?

- (A) $6 \times \square = 48$
(B) $6 \times 48 = \square$
(C) $\square \div 48 = 6$
(D) $\square \div 6 = 48$

21. A number line is shown.

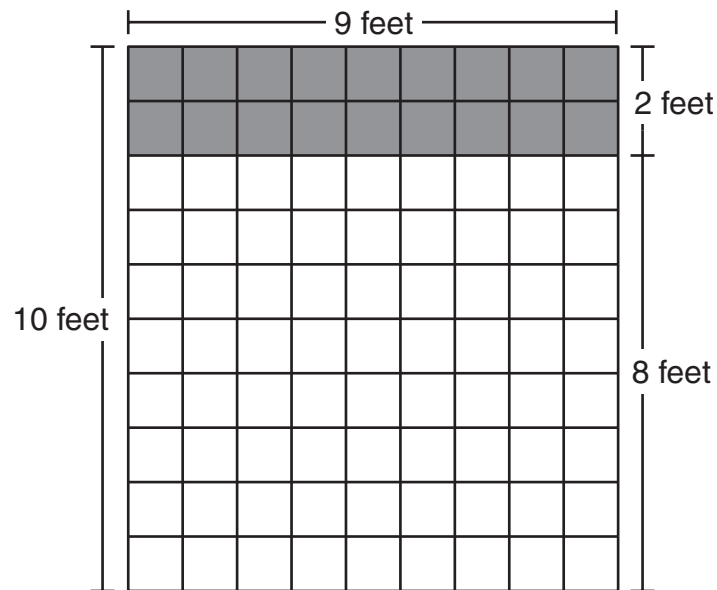


Which number is at the same point on the number line as $\frac{3}{3}$?

- (A) 1
(B) 2
(C) 3
(D) 4



22. This grid shows one of Clorinda's bedroom walls.



The top of the wall is shaded. The rest of the wall is unshaded.

Which expression can be used to find the total area of the wall?

- (A) 2×8 plus 9
- (B) 2×8 plus 10
- (C) 9×2 plus 9×8
- (D) 10×9 plus 2×9



23. Rachel used eight squares of equal size to make this pattern.



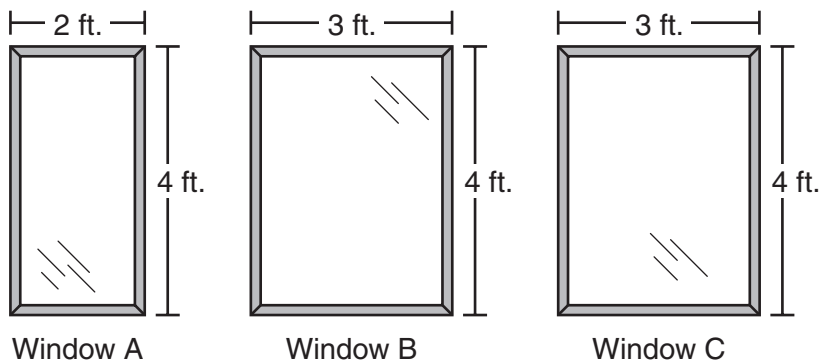
What fraction of the pattern is shaded?

- (A) $\frac{1}{8}$
- (B) $\frac{4}{8}$
- (C) $\frac{4}{4}$
- (D) $\frac{8}{4}$



This question has three parts. Be sure to answer all parts of the question.

- 24.** Mrs. Martinez is making curtains for three windows in her home. Each window is in the shape of a rectangle.



- a. What is the area, in square feet, of window A? Use words or numbers to explain your answer.

Blank area for student response.



- b. What is the **total** area, in square feet, of windows B and C? Use words or numbers to explain your answer.

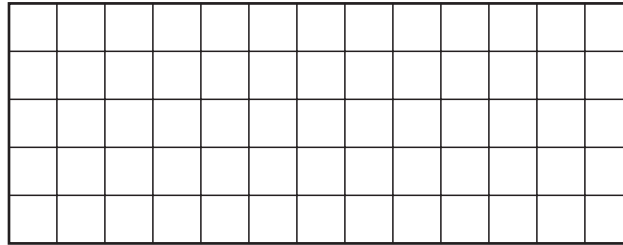
Mrs. Martinez has another rectangular window in her home that is 3 feet wider than window A. It is the same height as window A.

- c. What is the **perimeter**, in feet, of this other window? Use words or numbers to explain your answer.



Use the information below to answer questions 25 and 26.

Mr. Chan made this drawing of his driveway.



Key

Each  stands for 1 square yard

25. Which equation can be used to find the area of Mr. Chan's driveway?

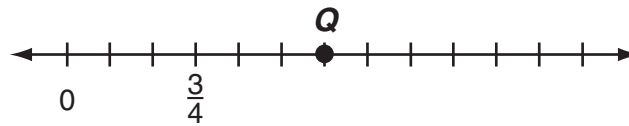
- Ⓐ $(5 + 10) \times (5 + 3) = \square$
- Ⓑ $(5 \times 10) + (5 \times 3) = \square$
- Ⓒ $(3 + 10) \times (5 + 3) = \square$
- Ⓓ $(3 \times 10) + (5 \times 3) = \square$

26. What is the perimeter of Mr. Chan's driveway?

- Ⓐ 18 feet
- Ⓑ 18 yards
- Ⓒ 36 feet
- Ⓓ 36 yards



27. Look at point Q on this number line.



What number does point Q stand for on the number line?

- Ⓐ $\frac{4}{6}$
 - Ⓑ 1
 - Ⓒ $\frac{6}{4}$
 - Ⓓ 6
28. Jamal's garden is a rectangle. The perimeter is 88 feet. The garden is 24 feet long. What is the width of the garden?
- Ⓐ 20 feet
 - Ⓑ 32 feet
 - Ⓒ 40 feet
 - Ⓓ 64 feet



29. A tomato plant grew $\frac{4}{6}$ inch in one week. It grew **more** than $\frac{4}{6}$ inch the second week. How much could the plant have grown the second week?

- Ⓐ $\frac{2}{6}$ inch
- Ⓑ $\frac{4}{8}$ inch
- Ⓒ $\frac{3}{6}$ inch
- Ⓓ $\frac{4}{4}$ inch



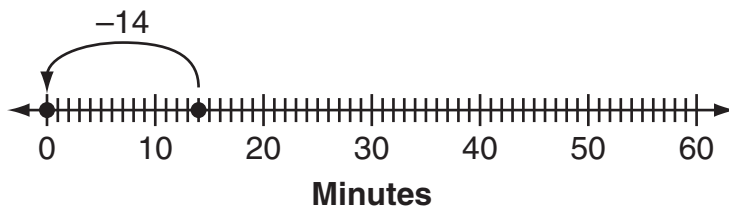
30. Bridget ran for 14 minutes. Then she walked for 7 minutes.

Which number line can be used to show how many minutes Bridget walked and ran?

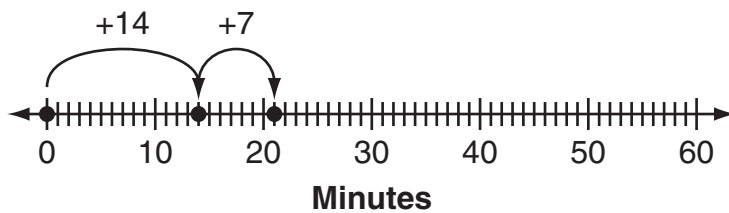
(A)



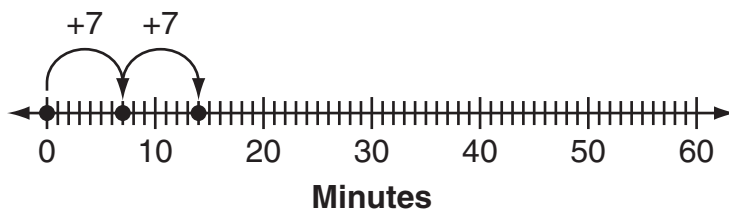
(B)



(C)



(D)



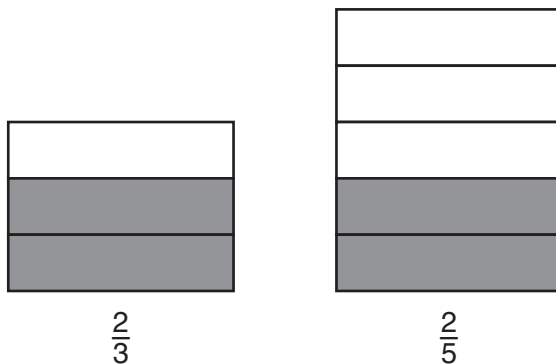


This question has two parts. Be sure to answer all parts of the question.

31. Mason wants to compare these fractions.

$$\frac{2}{3} \text{ and } \frac{2}{5}$$

- a. Explain why Mason **cannot** use these models to compare the fractions.





b. Compare the fractions $\frac{2}{3}$ and $\frac{2}{5}$. Write a number sentence using $<$, $>$, or $=$.

Explain how you knew which symbol to use.



32. There were 1,382 tickets to the zoo sold in July. Callie will round this number to the nearest hundred.

Which of the digits in 1,382 will help Callie decide whether to round the number of tickets sold to 1,300 or 1,400?

- Ⓐ 1
- Ⓑ 3
- Ⓒ 8
- Ⓓ 2

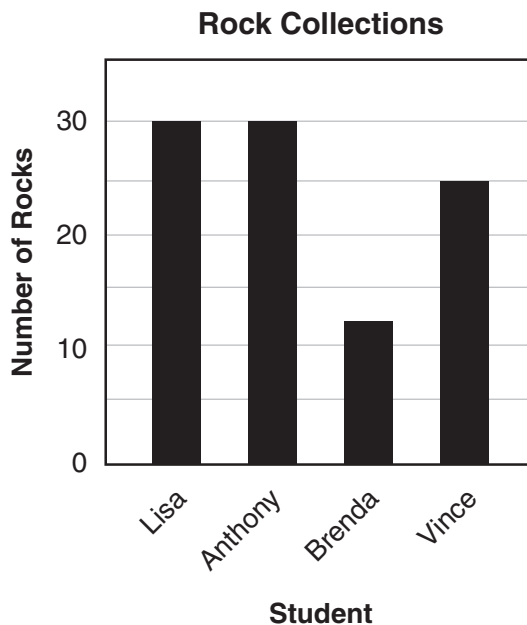


33. Lisa, Anthony, Brenda, and Vince collect rocks. This list shows the number of rocks each student has.

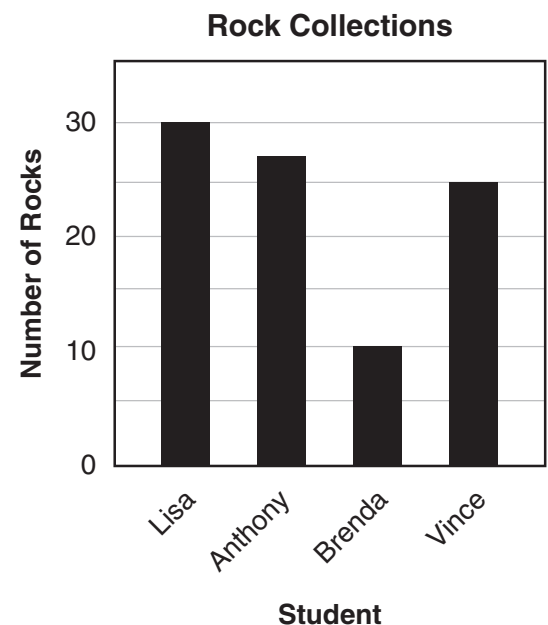
- Lisa has 30 rocks.
- Anthony has 27 rocks.
- Brenda has 12 rocks.
- Vince has 25 rocks.

Which graph matches the list?

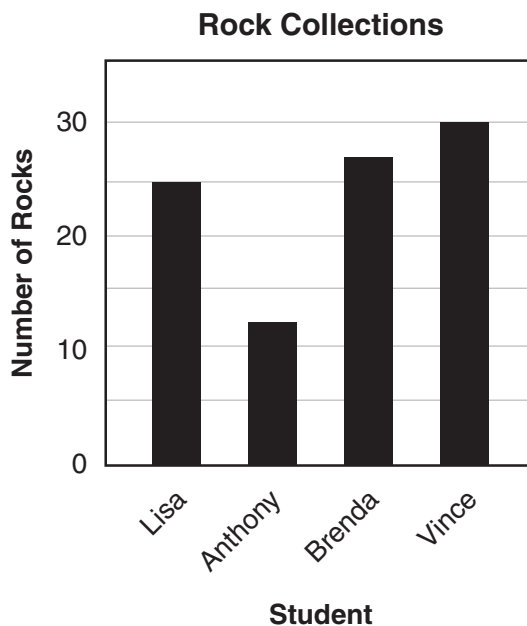
(A)



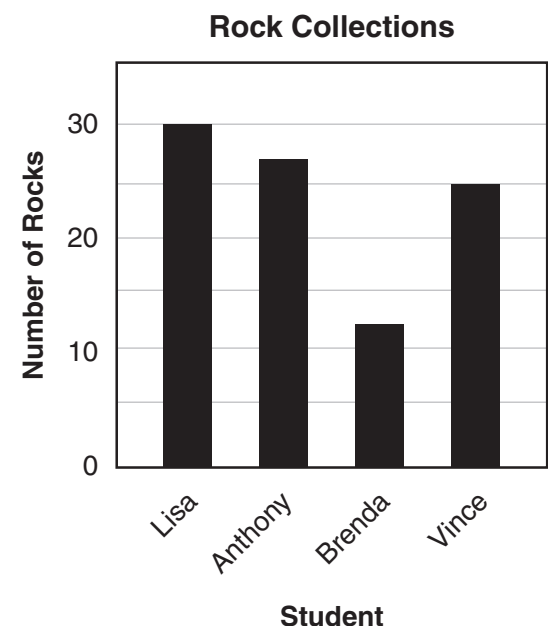
(B)



(C)

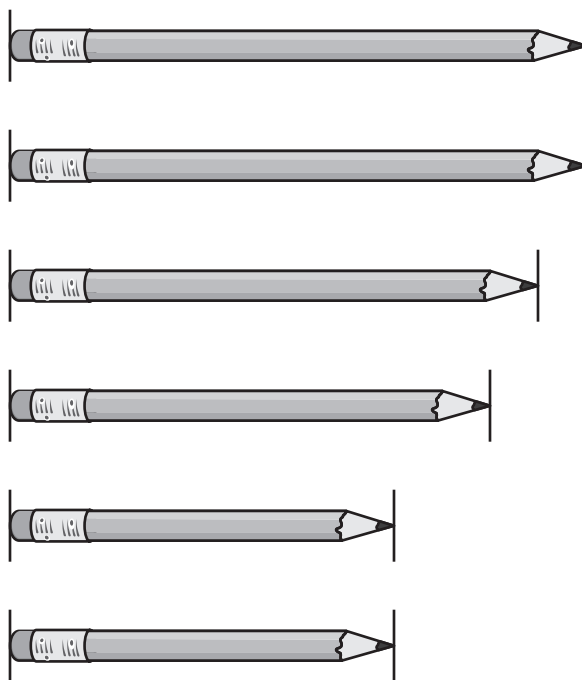


(D)

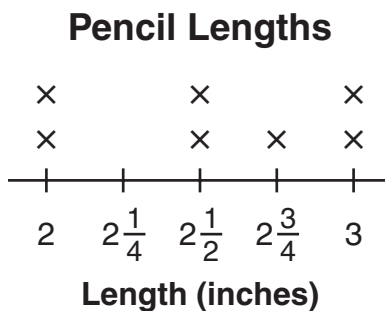




34. Seth measures the lengths, in inches, of these pencils.



Seth made this line plot to show the lengths. He made a mistake.

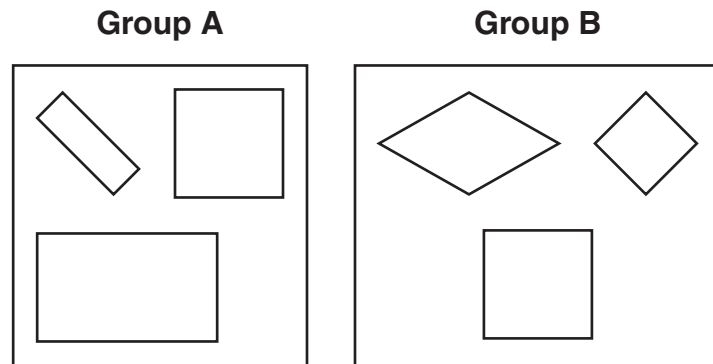


What is Seth's mistake?

- (A) He should have also shown a pencil at $2\frac{1}{4}$ inches.
- (B) He included an extra pencil shown at $2\frac{1}{2}$ inches.
- (C) One of the pencils shown at 2 inches should be shown at $2\frac{1}{4}$ inches.
- (D) One of the pencils shown at 3 inches should be shown at $2\frac{3}{4}$ inches.

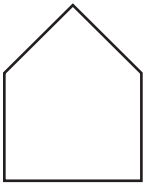


35. Lisa sorts some shapes into two groups.

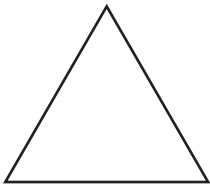


Which shape could be placed with Group B but **not** with Group A?

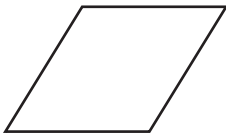
(A)



(B)



(C)



(D)



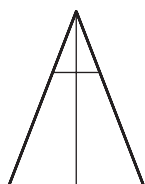


36. Abby has 24 flowers and 6 flowerpots. She wants to plant the same number of flowers in each flowerpot.

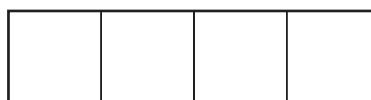
Which expression gives the number of flowers she should plant in each flowerpot?

- (A) $24 + 6$
- (B) $24 - 6$
- (C) 24×6
- (D) $24 \div 6$

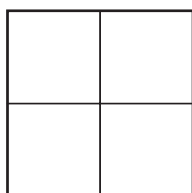
37. Ms. Clark asked her students to draw a shape so that each part of the shape is $\frac{1}{4}$ of the area of the shape. Here are four students' shapes.



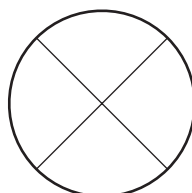
Ashlyn



Brian



Claire



Kip

Which child did **not** follow the directions?

- (A) Ashlyn, because the four parts of her triangle are different sizes
- (B) Brian, because he drew a rectangle with four equal parts
- (C) Claire, because each part of her square is equal to one-fourth of the square
- (D) Kip, because his circle is divided into fourths

THIS IS THE END OF THIS SESSION.

STOP

NM-MSSA Math

PRACTICE TEST ANSWER KEY

Grade 3

Item Number	Key	Standards
1	C	<p>3.G.A.1</p> <p>Understand that shapes in different categories (e.g., rhombuses, rectangles, and others) may share attributes (e.g., having four sides), and that the shared attributes can define a larger category (e.g., quadrilaterals). Recognize rhombuses, rectangles, and squares as examples of quadrilaterals, and draw examples of quadrilaterals that do not belong to any of these subcategories.</p>
2	B	<p>3.NBT.A.3</p> <p>Multiply one-digit whole numbers by multiples of 10 in the range 10-90 (e.g., 9×80, 5×60) using strategies based on place value and properties of operations.</p>
3	D	<p>3.OA.A.1</p> <p>Interpret products of whole numbers, e.g., interpret 5×7 as the total number of objects in 5 groups of 7 objects each. <i>For example, describe a context in which a total number of objects can be expressed as 5×7.</i></p>
4	A	<p>3.MD.A.2</p> <p>Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l).¹ Add, subtract, multiply, or divide to solve one-step word problems involving masses or volumes that are given in the same units, e.g., by using drawings (such as a beaker with a measurement scale) to represent the problem.²</p> <p>¹ Excludes compound units such as cm^3 and finding the geometric volume of a container</p> <p>² Excludes multiplicative comparison problems (problems involving notions of “times as much”; see Glossary, Table 2).</p>
5	A	<p>3.NF.A.2</p> <p>Understand a fraction as a number on the number line; represent fractions on a number line diagram.</p> <p>3.NF.A.2.B</p> <p>Represent a fraction a/b on a number line diagram by marking off a lengths $1/b$ from 0. Recognize that the resulting interval has size a/b and that its endpoint locates the number a/b on the number line.</p>
6	A,E	<p>3.NBT.A.3</p> <p>Multiply one-digit whole numbers by multiples of 10 in the range 10-90 (e.g., 9×80, 5×60) using strategies based on place value and properties of operations.</p>
7		<p>3.OA.A.3</p> <p>Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.¹</p> <p>¹ See Glossary, Table 2.</p>

Practice Test Answer Key • Grade 3 Math

Item Number	Key	Standards
8	B	3.OA.C.7 Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that $8 \times 5 = 40$, one knows $40 \div 5 = 8$) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.
9	D	3.NBT.A.2 Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.
10	B	3.OA.B.5 Apply properties of operations as strategies to multiply and divide. ² <i>Examples: If $6 \times 4 = 24$ is known, then $4 \times 6 = 24$ is also known. (Commutative property of multiplication.) $3 \times 5 \times 2$ can be found by $3 \times 5 = 15$, then $15 \times 2 = 30$, or by $5 \times 2 = 10$, then $3 \times 10 = 30$. (Associative property of multiplication.) Knowing that $8 \times 5 = 40$ and $8 \times 2 = 16$, one can find 8×7 as $8 \times (5 + 2) = (8 \times 5) + (8 \times 2) = 40 + 16 = 56$. (Distributive property.)</i> ² Students need not use formal terms for these properties.
11	B	3.OA.D.8 Solve two-step word problems using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding. ³ ³ This standard is limited to problems posed with whole numbers and having whole-number answers; students should know how to perform operations in conventional order when there are no parentheses to specify a particular order (Order of Operations).
12	C	3.OA.D.8 Solve two-step word problems using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding. ³ ³ This standard is limited to problems posed with whole numbers and having whole-number answers; students should know how to perform operations in conventional order when there are no parentheses to specify a particular order (Order of Operations).
13	D	3.OA.C.7 Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that $8 \times 5 = 40$, one knows $40 \div 5 = 8$) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.
14		3.OA.D.8 Solve two-step word problems using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding. ³ ³ This standard is limited to problems posed with whole numbers and having whole-number answers; students should know how to perform operations in conventional order when there are no parentheses to specify a particular order (Order of Operations).

Practice Test Answer Key • Grade 3 Math

Item Number	Key	Standards
15	C	3.OA.D.9 Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations. <i>For example, observe that 4 times a number is always even, and explain why 4 times a number can be decomposed into two equal addends.</i>
16	C	3.OA.B.5 Apply properties of operations as strategies to multiply and divide. ² <i>Examples: If $6 \times 4 = 24$ is known, then $4 \times 6 = 24$ is also known. (Commutative property of multiplication.) $3 \times 5 \times 2$ can be found by $3 \times 5 = 15$, then $15 \times 2 = 30$, or by $5 \times 2 = 10$, then $3 \times 10 = 30$. (Associative property of multiplication.) Knowing that $8 \times 5 = 40$ and $8 \times 2 = 16$, one can find 8×7 as $8 \times (5 + 2) = (8 \times 5) + (8 \times 2) = 40 + 16 = 56$. (Distributive property.)</i> ² Students need not use formal terms for these properties.
17	D	3.NBT.A.1 Use place value understanding to round whole numbers to the nearest 10 or 100.
18	D	3.NF.A.3 Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size. 3.NF.A.3.D Compare two fractions with the same numerator or the same denominator by reasoning about their size. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with the symbols $>$, $=$, or $<$, and justify the conclusions, e.g., by using a visual fraction model.
19	D	3.MD.C.7 Relate area to the operations of multiplication and addition. 3.MD.C.7.C Use tiling to show in a concrete case that the area of a rectangle with whole-number side lengths a and $b + c$ is the sum of $a \times b$ and $a \times c$. Use area models to represent the distributive property in mathematical reasoning.
20	A	3.OA.A.3 Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem. ¹ ¹ See Glossary, Table 2.
21	A	3.NF.A.3 Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size. 3.NF.A.3.C Express whole numbers as fractions, and recognize fractions that are equivalent to whole numbers. <i>Examples: Express 3 in the form $3 = 3/1$; recognize that $6/1 = 6$; locate $4/4$ and 1 at the same point of a number line diagram.</i>
22	C	3.MD.C.7 Relate area to the operations of multiplication and addition. 3.MD.C.7.C Use tiling to show in a concrete case that the area of a rectangle with whole-number side lengths a and $b + c$ is the sum of $a \times b$ and $a \times c$. Use area models to represent the distributive property in mathematical reasoning.

Practice Test Answer Key • Grade 3 Math

Item Number	Key	Standards
23	B	3.NF.A.1 Understand a fraction $\frac{1}{b}$ as the quantity formed by 1 part when a whole is partitioned into b equal parts; understand a fraction $\frac{a}{b}$ as the quantity formed by a parts of size $\frac{1}{b}$.
24		3.MD.C.7 Relate area to the operations of multiplication and addition. 3.MD.C.7.B Multiply side lengths to find areas of rectangles with whole-number side lengths in the context of solving real world and mathematical problems, and represent whole-number products as rectangular areas in mathematical reasoning.
25	B	3.MD.C.7 Relate area to the operations of multiplication and addition. 3.MD.C.7.C Use tiling to show in a concrete case that the area of a rectangle with whole-number side lengths a and $b + c$ is the sum of $a \times b$ and $a \times c$. Use area models to represent the distributive property in mathematical reasoning.
26	D	3.MD.D.8 Solve real world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length, and exhibiting rectangles with the same perimeter and different areas or with the same area and different perimeters.
27	C	3.NF.A.2 Understand a fraction as a number on the number line; represent fractions on a number line diagram. 3.NF.A.2.B Represent a fraction $\frac{a}{b}$ on a number line diagram by marking off a lengths $\frac{1}{b}$ from 0. Recognize that the resulting interval has size $\frac{a}{b}$ and that its endpoint locates the number $\frac{a}{b}$ on the number line.
28	A	3.MD.D.8 Solve real world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length, and exhibiting rectangles with the same perimeter and different areas or with the same area and different perimeters.
29	D	3.NF.A.3 Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size. 3.NF.A.3.D Compare two fractions with the same numerator or the same denominator by reasoning about their size. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with the symbols $>$, $=$, or $<$, and justify the conclusions, e.g., by using a visual fraction model.
30	C	3.MD.A.1 Tell and write time to the nearest minute and measure time intervals in minutes. Solve word problems involving addition and subtraction of time intervals in minutes, e.g., by representing the problem on a number line diagram.

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Item Number	Key	Standards
31		<p>3.NF.A.3 Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size.</p> <p>3.NF.A.3.D Compare two fractions with the same numerator or the same denominator by reasoning about their size. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with the symbols $>$, $=$, or $<$, and justify the conclusions, e.g., by using a visual fraction model.</p>
32	C	<p>3.NBT.A.1 Use place value understanding to round whole numbers to the nearest 10 or 100.</p>
33	D	<p>3.MD.B.3 Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one- and two-step “how many more” and “how many less” problems using information presented in scaled bar graphs. <i>For example, draw a bar graph in which each square in the bar graph might represent 5 pets.</i></p>
34	B	<p>3.MD.B.4 Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Show the data by making a line plot, where the horizontal scale is marked off in appropriate units— whole numbers, halves, or quarters.</p>
35	C	<p>3.G.A Reason with shapes and their attributes.</p>
36	D	<p>3.OA.A.2 Interpret whole-number quotients of whole numbers, e.g., interpret $56 \div 8$ as the number of objects in each share when 56 objects are partitioned equally into 8 shares, or as a number of shares when 56 objects are partitioned into equal shares of 8 objects each. <i>For example, describe a context in which a number of shares or a number of groups can be expressed as $56 \div 8$.</i></p>
37	A	<p>3.G.A.2 Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole. <i>For example, partition a shape into 4 parts with equal area, and describe the area of each part as $1/4$ of the area of the shape.</i></p>

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#7

Scoring Rubric

Score	Description
2	for correct answers to part a, $30 \times \square = 150$ or equivalent , and part b, 5 (tanks)
1	for correct answer to one part or for correct answer to part b based on an incorrect answer in part a
0	Response is incorrect or contains some correct work that is irrelevant to the skill or concept being measured.
Blank	No response

Rubric Block: ID:2 Author, Proctor, Scorer, Test-creator, Tutor

a. $30 \times \square = 150$

b. There are 5 fish tanks.

Practice Test Answer Key • Grade 3 Math

#14

Concepts and Procedures Scoring Rubric

Score	Description
4	The student earns 4 points.
3	The student earns 3 points.
2	The student earns 2 points.
1	The student earns 1 point.
0	The student earns 0 points.
Blank	No response

Concepts and Procedures Training Notes:

- Part a 2 points for correct answer, **4** (sheets of stickers), with sufficient explanation to show understanding of solving multi-step word problems
OR
1 point for correct answer with incomplete or no explanation
or
1 point for sufficient explanation to show understanding of solving multi-step word problems, with incorrect or no answer
- Part b 2 points for correct answer, **2** (packs of stickers), with sufficient explanation to show understanding of solving multi-step word problems
OR
1 point for correct answer with incomplete or no explanation
or
1 point for sufficient explanation to show understanding of solving multi-step word problems, with incorrect or no answer

Mathematical Practices Scoring Rubric

Score	Description
2	The student earns 2 points.
1	The student earns 1 point.
0	The student earns 0 points.
Blank	No response

Mathematical Practices Training Notes:

- 1 point for making sense of problems (does not show evidence of using any of the extraneous information)
1 point for ensuring the solution makes sense (compares the estimated amounts to the actual amounts)

Exemplary Response:

- a. 4 sheets of stickers, $3 \times 8 = 24$, $24 \div 6 = 4$
- b. 2 more packs of stickers, He will need 4 sheets of stickers for each of the 4 bags $4 \times 4 = 16$. He will need 16 sheets of stickers in all. There are 8 sheets of stickers in each pack. $16 \div 8 = 2$. So he will need to buy 2 more packs of stickers.
- c. No, he is not correct. $25 + 15 = 40$, $18 > 15$, so $25 + 18 > 40$. Wyatt spent more than \$40 on the cake and balloons.
OR
 $25 + 18 = 43$, $43 > 40$ So Wyatt is not correct.

Practice Test Answer Key • Grade 3 Math

#24

Concepts and Procedures Scoring Rubric:

Score	Description
4	The student earns 6 points.
3	The student earns 4 or 5 points.
2	The student earns 2 or 3 points.
1	The student earns 1 point.
0	Response is incorrect or contains some correct work that is irrelevant to the skill or concept being measured.
Blank	No response

Training Notes:

Part a	2 points	for correct answer, 8 (square feet) with sufficient work or explanation to show understanding of finding the area of a rectangular figure
	OR	
	1 point	for correct answer with insufficient or no explanation
	or	
		for sufficient explanation to show understanding of finding the area of a rectangular figure, with incorrect or no answer
Part b	2 points	for correct answer, 24 (square feet) with sufficient work or explanation to show understanding of finding the total area of two rectangular figures
	OR	
	1 point	for correct answer with insufficient or no explanation
	or	
		for sufficient explanation to show understanding of finding the total area of two rectangular figures, with incorrect or no answer
Part c	2 points	for correct answer, 18 (feet) with sufficient work or explanation to show understanding of finding the perimeter of a rectangular figure
	OR	
	1 point	for correct answer with insufficient or no explanation
	or	
		for sufficient explanation to show understanding of finding the perimeter of a rectangular figure, with incorrect or no answer

Mathematical Practices Scoring Rubric

Score	Description
2	The student earns 2 points.
1	The student earns 1 point.
0	Response is incorrect or contains some correct work that is irrelevant to the skill or concept being measured.
Blank	No response

Training Notes:

- 1 point for abstracting a given situation (uses the appropriate measurements for each part of the problem)
- 1 point for using quantitative reasoning (correctly computes the areas and perimeter for the problem)

Exemplary Response:

- a. 8 (square feet) $2 \times 4 = 8$
- b. 24 (square feet) $3 \times 4 = 12$, $12 + 12 = 24$
- c. 16 (feet) $4 + 4 + 5 + 5 = 18$

Practice Test Answer Key • Grade 3 Math

#31

Concepts and Procedures Scoring Rubric:

Score	Description
2	The student earns 2 points.
1	The student earns 1 point.
0	The student earns 0 points.
Blank	No response

Concepts and Procedures Training Notes:

Part b 2 points for correct number sentence, $\frac{2}{3} > \frac{2}{5}$, or equivalent with sufficient explanation to show understanding of comparing fractions with the same numerator by reasoning about their size

OR

1 point for correct number sentence with insufficient or no explanation

or

for sufficient explanation to show understanding of comparing fractions with the same numerator by reasoning about their size with incorrect or no number sentence

Mathematical Practices Scoring Rubric

Score	Description
1	The student earns 1 point.
0	The student earns 0 points.
Blank	No response

Mathematical Practices Training Notes:

1 point for constructing an argument (sufficient explanation of how fractions can be compared only when they refer to the same whole)

Exemplary Response:

a. Mason cannot use the models because they are not the same size. They do not show the same whole.

b. $\frac{2}{3} > \frac{2}{5}$. The numerators are the same, so I compared the denominators. $3 < 5$. A smaller denominator means each part of the whole is

greater. So, $\frac{2}{3} > \frac{2}{5}$.