

NEBRASKA STATE ACCOUNTABILITY



MATHEMATICS ITEM AND SCORING SAMPLER GRADE 4

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GENERAL INTRODUCTION

The Nebraska Department of Education provides districts and schools with tools to assist in delivering focused instructional programs aligned to the state assessment system. These tools include Table of Specifications documents, administration manuals, and content-based item and scoring samplers. This Item and Scoring Sampler is a useful tool for Nebraska educators in the preparation of local instructional programs and the statewide NeSA-MATH.

SAMPLER CONTENTS

This sampler contains test questions (items) that have been written to align to the assessment indicators that are based on the Nebraska College- and Career-Ready Mathematics Standards. The test questions provide a simulation of the types of items that will appear on an operational Nebraska College- and Career-Ready NeSA-MATH. Each sample test question has been through a rigorous review process to ensure alignment with the assessment indicators.

PURPOSE AND USES

The purpose of the sampler is to expose teachers and administrators to new item types and to show how these items align to the revised Nebraska College- and Career-Ready Mathematics Standards. Many of the items provided in the sampler will be accessible to students in the form of MATH Practice Tests, Guided Practice Tests, and Online Tools Training resources.

ITEM FORMAT AND SCORING GUIDELINES

The Nebraska College- and Career-Ready NeSA-MATH has two types of test questions. The types of test questions are Multiple-Choice (MC) and Auto-Scored Constructed Response (ASCR).

MULTIPLE CHOICE (MC):

All MC items have four answer choices, including three distractors and one correct answer. Distractors represent common miscalculations, incorrect logic, common misinterpretations, unsound reasoning, etc. A correct response to an MC item is worth one point.

AUTO-SCORED CONSTRUCTED RESPONSE (ASCR):

ASCR item types provide a new forum in which to address higher-level thinking skills without the use of hand-scored test questions. Using the expansive features and functions of online testing, developers will incorporate technical enhancements to the test question, the response area, and/or the stimulus. Item types may include drag-and-drop, hot-spot, and in-line selection of multiple answers from drop-down menus. Students will be able to manipulate information within dynamic tasks such as dragging and pasting elements, using manipulatives, and selecting multiple answers from a variety of presentation methods. Each ASCR test question is worth 2 points.

DEPTH OF KNOWLEDGE

In addition to being aligned to the standards, the sample items included in this sampler were also developed with a particular emphasis on cognitive complexity, or Depth of Knowledge (DOK). The DOK level is also provided for each item in this sampler in the Item Information Table. DOK measures the level of cognitive demand required to complete an assessment item. The following descriptions show the expectations of the DOK levels in greater detail.

Level 1 (Recall) includes the recall of information such as a fact, definition, term, or a simple procedure, as well as performing a simple algorithm or applying a formula. That is, in mathematics, a one-step, well-defined, and straight algorithmic procedure should be included at this lowest level. Other key words that signify Level 1 include “identify,” “recall,” “recognize,” “use,” and “measure.” Verbs such as “describe” and “explain” could be classified at different levels, depending on what is to be described and explained.

Level 2 (Skill/Concept) includes the engagement of some mental processing beyond a habitual response. A Level 2 assessment item requires students to make some decisions as to how to approach the problem or activity, whereas Level 1 requires students to demonstrate a rote response, perform a well-known algorithm, follow a set procedure (like a recipe), or perform a clearly defined series of steps. Keywords that generally distinguish a Level 2 item include “classify,” “organize,” “estimate,” “make observations,” “collect and display data,” and “compare data.” These actions imply more than one step. For example, to compare data requires first identifying characteristics of objects or phenomena and then grouping or ordering the objects. Some action verbs, such as “explain,” “describe,” or “interpret,” could be classified at different levels depending on the object of the action. For example, interpreting information from a simple graph, or reading information from the graph, also are at Level 2. Interpreting information from a complex graph that requires some decisions on what features of the graph need to be considered and how information from the graph can be aggregated is at Level 3. Level 2 activities are not limited only to number skills, but may involve visualization skills and probability skills. Other Level 2 activities include noticing or describing non-trivial patterns; explaining the purpose and use of experimental procedures; carrying out experimental procedures; making observations and collecting data; classifying, organizing, and comparing data; and organizing and displaying data in tables, graphs, and charts.

Level 3 (Strategic Thinking) requires reasoning, planning, using evidence, and a higher level of thinking than the previous two levels. In most instances, requiring students to explain their thinking is at Level 3. Activities that require students to make conjectures are also at this level. The cognitive demands at Level 3 are complex and abstract. The complexity does not result from the fact that there are multiple answers, a possibility for both Levels 1 and 2, but because the task requires more demanding reasoning. An activity, however, that has more than one possible answer and requires students to justify the response they give would most likely be at Level 3. Other Level 3 activities include drawing conclusions from observations, citing evidence and developing a logical argument for concepts, explaining phenomena in terms of concepts, and deciding which concepts to apply in order to solve a complex problem.

ITEM AND SCORING SAMPLER FORMAT

Sample questions are provided in this sampler, along with any related stimulus information such as a passage or graphic. Following each test question is an item information table.

Example Response Item Information Table

Item Information		
Alignment	Assigned Indicator	Assigned indicator definition
Answer Key	Correct Answer	Option Annotations Brief answer option analysis or rationale
Depth of Knowledge	Assigned DOK	
Focus	Skill/Task	

The NeSA-MATH is administered primarily online. Although there is a paper-pencil format, the examples in this sampler include samples of students' responses in online format.

ADDITIONAL INFORMATION

For more information related to the Nebraska plan and schedule for making the transition to NeSA-Mathematics, see <http://www.education.ne.gov/Assessment> and select the link on the left titled "CCR MATH Transition."

MULTIPLE-CHOICE ITEMS

1. Silas can run $\frac{1}{8}$ of a mile in 1 minute. How many miles can Silas run in 5 minutes?
- A. $\frac{5}{8}$ mile
- B. $\frac{6}{8}$ mile
- C. $\frac{6}{9}$ mile
- D. $\frac{8}{5}$ miles

Item Information		
Alignment	MA 4.1.2.g	Multiply a fraction by a whole number.
Answer Key	A	Option Annotations The student is asked to solve the problem by multiplying $\frac{1}{8}$ and 5. Option A is the correct answer since $\frac{1}{8} \times 5 = \frac{5}{8}$. Option B is incorrect since the numerators 1 and 5 are added to make 6 in $\frac{6}{8}$. Option C is incorrect since the numerators 1 and 5 are added to make 6 and the denominators 8 and 1 are added to make 9 in $\frac{6}{9}$. Option D is incorrect since the fraction is inverted.
Depth of Knowledge	1	
Focus	Multiplying Unit Fraction by Whole Number	

2. Oscar has 9 pumpkins. Libby has p fewer pumpkins than Oscar. Which expression represents the number of pumpkins Libby has?
- A. $9 + p$
 - B. $9 - p$
 - C. $p + 9$
 - D. $p - 9$

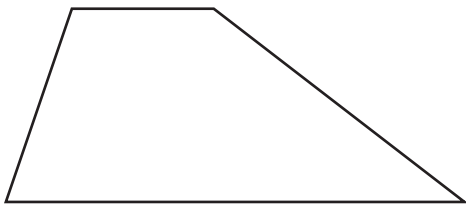
Item Information		
Alignment	MA 4.2.1.a	Create a simple algebraic expression or equation using a variable for an unknown number to represent a math process (e.g., $3 + n = 15$, $81 \div n = 9$).
Answer Key	B	Option Annotations The student is asked to create an algebraic expression to represent the given situation. Option B is the correct answer since the number of pumpkins Libby has can be found by subtracting p from 9. Options A and C are incorrect since they show the sum of p and 9. Option D is incorrect since the variable and numeral are reversed.
Depth of Knowledge	2	
Focus	Creating Algebraic Expressions with Variable	

3. DeRon drew a shape with 4 sets of parallel sides. Which shape could DeRon have drawn?
- A. hexagon
 - B. octagon
 - C. rectangle
 - D. trapezoid

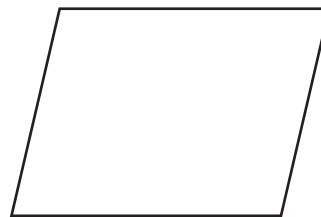
Item Information		
Alignment	MA 4.3.1.d	Classify two-dimensional shapes based on the presence or absence of parallel and perpendicular lines, or the presence or absence of specific angles.
Answer Key	B	Option Annotations The student is asked to identify the shape with 4 sets of parallel sides. Option B is the correct answer since an octagon can have 4 sets of parallel sides. Options A, C, and D are incorrect since they show shapes that can have different numbers of sets of parallel sides.
Depth of Knowledge	2	
Focus	Parallel Lines in Shapes	

4. Which shape has a line of symmetry?

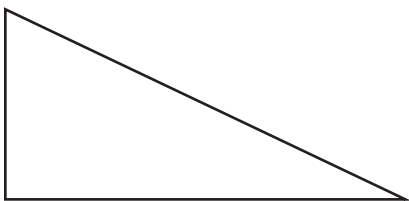
A.



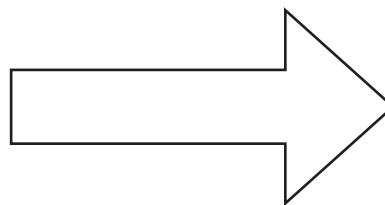
B.



C.

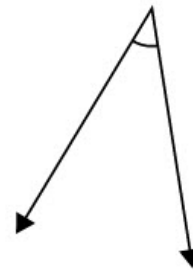


D.



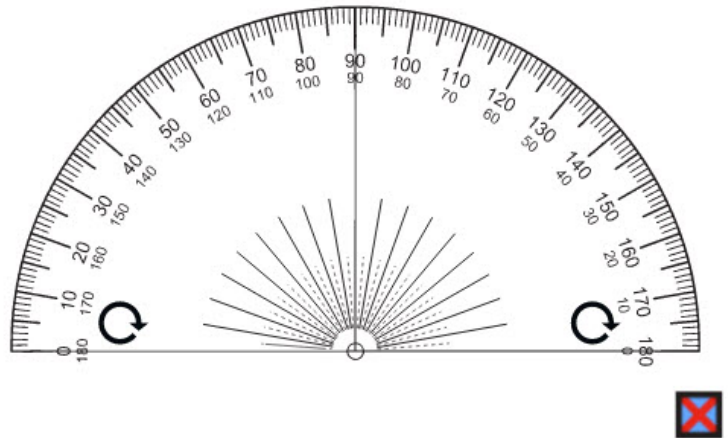
Item Information		
Alignment	MA 4.3.1.h	Recognize and draw lines of symmetry in two-dimensional shapes.
Answer Key	D	Option Annotations The student is asked to identify the shape that has a line of symmetry. Option D is the correct answer since the shape has a line of symmetry. Options A, B, and C are incorrect since the shapes do not have lines of symmetry.
Depth of Knowledge	1	
Focus	Lines of Symmetry in Shapes	

5. Use the protractor tool to measure the angle below.



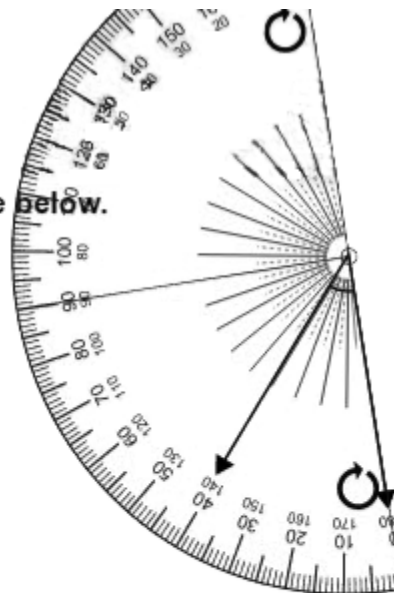
What is the measure of the angle?

- (a) 35°
- (b) 40°
- (c) 45°
- (d) 50°



Protractor in Use

Use the protractor tool to measure the angle below.



What is the measure of the angle?

- ☐ a 35°
- ☐ b 40°
- ☐ c 45°
- ☐ d 50°

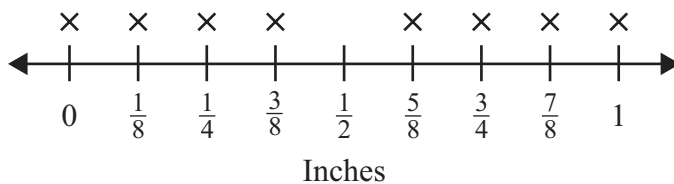
Item Information		
Alignment	MA 4.3.1.f	Measure angles in whole number degrees using a protractor.
Answer Key	B	Option Annotations The student is asked to use a protractor to measure the angle shown. Option B is the correct answer since the angle measures 40 degrees. Options A, C, and D are incorrect since the measures are not the measure of the angle shown.
Depth of Knowledge	1	
Focus	Measuring Angles with Protractor	

6. Use the list below to answer the question.

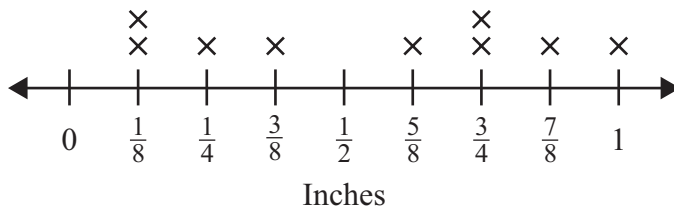
$\frac{1}{8}$, $\frac{5}{8}$, $\frac{3}{4}$, $\frac{1}{4}$, 0, $\frac{3}{8}$, 0, 1, $\frac{3}{4}$, $\frac{1}{8}$, $\frac{7}{8}$

The list shows the numbers of inches Sara's friends grew over the summer. Which line plot represents the numbers of inches her friends grew over the summer?

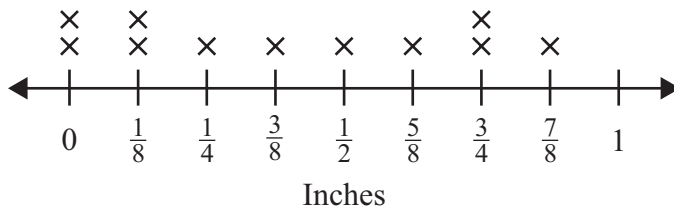
A. **Summer Growth**



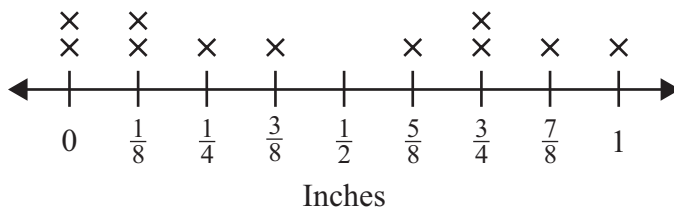
B. **Summer Growth**



C. **Summer Growth**

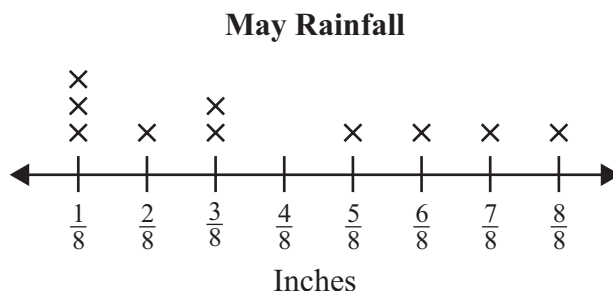


D. **Summer Growth**



Item Information		
Alignment	MA 4.4.1.a	Represent data using line plots where the horizontal scale is marked off in appropriate units (e.g., whole numbers, halves, quarters, or eighths).
Answer Key	D	Option Annotations The student is asked to represent the numbers shown in the list using a line plot. Option D is the correct answer since the line plot correctly represents the list of numbers shown, and only those numbers. Option A is incorrect since the number line does not account for the numbers appearing more than one time in the list. Option B is incorrect since the line plot is missing some numbers in the list. Option C is incorrect since the line plot is missing a number in the list and includes a number that is not in the list.
Depth of Knowledge	1	
Focus	Line Plots Scaled with Eighths	

7. Use the line plot below to answer the question.

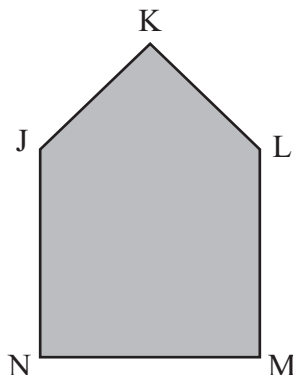


The line plot shows the amount of rainfall, in inches, for 10 different days in May. What was the total amount of rainfall in May?

- A. 4 inches
- B. $3\frac{5}{8}$ inches
- C. $4\frac{5}{8}$ inches
- D. 7 inches

Item Information		
Alignment	MA 4.4.2.a	Solve problems involving addition or subtraction of fractions using information presented in line plots.
Answer Key	C	<p style="text-align: center;">Option Annotations</p> <p>The student is asked to use the line plot to find the sum of all the values. Option C is the correct answer since $\frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{2}{8} + \frac{3}{8} + \frac{3}{8} + \frac{5}{8} + \frac{6}{8} + \frac{7}{8} + \frac{8}{8} = 4\frac{5}{8}$. Option A is incorrect since the sum of 4 does not account for values that appear more than one time. Option B is incorrect since one whole is not accounted for in $3\frac{5}{8}$. Option D is incorrect since 7 is the number of values that are represented.</p>
Depth of Knowledge	2	
Focus	Addition of Fractions in Line Plots	

8. Use the figure below to answer the question.



Which line segment is perpendicular to line segment JN?

- A. line segment JK
- B. line segment KL
- C. line segment LM
- D. line segment MN

Item Information		
Alignment	MA 4.3.1.c	Identify and draw points, lines, line segments, rays, angles, parallel lines, perpendicular lines, and intersecting lines, and recognize them in two-dimensional figures.
Answer Key	D	Option Annotations The student is asked to identify the segment that is perpendicular to segment JN in the figure shown. Option D is the correct answer since segment MN is perpendicular to segment JN. Option A is incorrect since segment JK intersects but is not perpendicular to segment JN. Option B is incorrect since segment KL is not perpendicular to segment JN. Option C is incorrect since segment LM is parallel to segment JN.
Depth of Knowledge	1	
Focus	Perpendicular Lines in Shapes	

9. Which number is a multiple of 4?

- A. 30
- B. 38
- C. 42
- D. 48

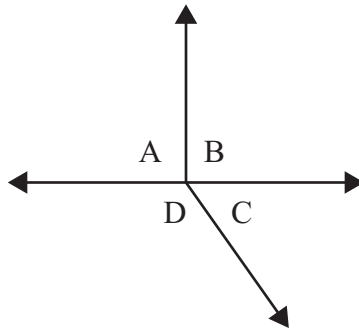
Item Information		
Alignment	MA 4.1.1.d	Determine whether a given whole number up to 100 is a multiple of a given one-digit number.
Answer Key	D	Option Annotations The student is asked to determine which number is a multiple of 4. Option D is the correct answer since 48 is a multiple of 4. Options A, B, and C are incorrect since none of the numbers are multiples of 4.
Depth of Knowledge	1	
Focus	Multiples Up to 100	

10. Which is correct?

- A. $267,479 < 266,394$
- B. $397,645 < 397,654$
- C. $424,986 > 424,996$
- D. $606,742 > 616,635$

Item Information		
Alignment	MA 4.1.1.f	Compare whole numbers up to one million and decimals through the hundredths place using $>$, $<$, and $=$ symbols, and visual representations.
Answer Key	B	Option Annotations The student is asked to identify the correct comparison. Option B is correct since 397,645 is less than 397,654. Option A is incorrect since 267,479 is greater than 266,394. Option C is incorrect since 424,986 is less than 424,996. Option D is incorrect since 606,742 is less than 616,635.
Depth of Knowledge	1	
Focus	Comparing Whole Numbers Up to One Million	

11. Use the picture below to answer the question.



Which angle is an obtuse angle?

- A. A
- B. B
- C. C
- D. D

Item Information		
Alignment	MA 4.3.1.b	Classify an angle as acute, obtuse, or right.
Answer Key	D	Option Annotations The student is asked to identify the obtuse angle in the picture shown. Option D is the correct answer since angle D is obtuse. Options A and B are incorrect since angles A and B are right angles. Option C is incorrect since angle C is an acute angle.
Depth of Knowledge	1	
Focus	Classifying Obtuse Angle	

12. What is $4\frac{3}{10} + 8\frac{5}{10}$?

A. $12\frac{8}{100}$

B. $12\frac{15}{100}$

C. $12\frac{8}{20}$

D. $12\frac{8}{10}$

Item Information		
Alignment	MA 4.1.2.f	Add and subtract fractions and mixed numbers with like denominators.
Answer Key	D	Option Annotations The student is asked to add mixed numbers with like denominators. Option D is the correct answer since $4\frac{3}{10} + 8\frac{5}{10} = 12\frac{8}{10}$. Option A is incorrect since the denominators 10 and 10 are multiplied to make 100 in $\frac{8}{100}$. Option B is incorrect since the numerators 3 and 5 are multiplied to make 15 and the denominators 10 and 10 are multiplied to make 100 in $\frac{15}{100}$. Option C is incorrect since the denominators 10 and 10 are added to make 20 in $\frac{8}{20}$.
Depth of Knowledge	1	
Focus	Adding Mixed Numbers with Like Denominators	

13. Use the equation below to answer the question.

$$49 \times 57 = \underline{\hspace{2cm}}$$

Which number correctly completes the equation?

- A. 548
- B. 588
- C. 2,793
- D. 2,993

Item Information		
Alignment	MA 4.1.2.c	Multiply a two-digit whole number by a two-digit whole number using the standard algorithm.
Answer Key	C	Option Annotations The student is asked to complete the equation by multiplying 49 and 57. Option C is the correct answer since $49 \times 57 = 2,793$. Options A, B, and D are incorrect due to place value and regrouping errors.
Depth of Knowledge	1	
Focus	Multiplying Two-Digit Whole Number by Two-Digit Whole Number	

14. What is 7,158 rounded to the nearest hundred?

- A. 7,100
- B. 7,150
- C. 7,160
- D. 7,200

Item Information		
Alignment	MA 4.1.1.g	Round a multi-digit whole number to any given place.
Answer Key	D	Option Annotations The student is asked to round the given number to the nearest hundred. Option D is the correct answer since 7,200 is the number rounded to the nearest hundred. Option A is incorrect since 7,100 is the number rounded down to the next hundred. Option B is incorrect since 7,150 is the number rounded down to the next ten. Option C is incorrect since 7,160 is the number rounded to the nearest ten.
Depth of Knowledge	1	
Focus	Rounding to Nearest Hundred	

15. What is the value of y in the number sentence?

$$y - 9 = 7$$

- A. 2
- B. 16
- C. 17
- D. 63

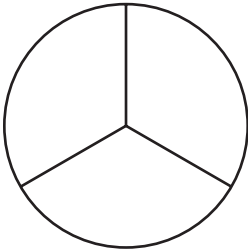
Item Information		
Alignment	MA 4.2.2.a	Solve one- and two-step problems which use any or all of the four basic operations and include the use of a letter to represent the unknown quantity.
Answer Key	B	Option Annotations The student is asked to solve the equation shown to find the value of the variable. Option B is the correct answer since $y - 9 = 7$, $y - 9 + 9 = 7 + 9$, $y = 16$. Option A is incorrect since 2 is the solution to $9 - y = 7$, $9 - y + y = 7 + y$, $9 - 7 = 7 - 7 + y$, $2 = y$. Option C is incorrect since 17 is the solution to $y - 9 = 8$, $y - 9 + 9 = 8 + 9$, $y = 18$. Option D is incorrect since 63 is the solution to $y \div 9 = 7$, $y \div 9 \times 9 = 7 \times 9$, $y = 63$.
Depth of Knowledge	1	
Focus	Solving One-Step Equations	

16. Kris has 35 baseball cards. She gives 15 baseball cards to her friend. Then she gives half of the remaining cards to her brother. How many baseball cards does Kris have left?
- A. 10
- B. 15
- C. 20
- D. 25

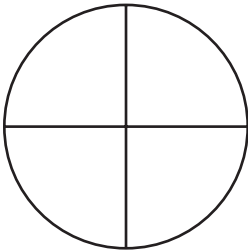
Item Information		
Alignment	MA 4.2.3.a	Solve real-world problems involving multi-step equations comprised of whole numbers using the four operations, including interpreting remainders.
Answer Key	A	Option Annotations The student is asked to solve the problem by finding the value of $(35 - 15) \div 2$. Option A is the correct answer since $35 - 15 = 20$, and $20 \div 2 = 10$. Option B is incorrect since $35 - 5 = 30$, and $30 \div 2 = 15$. Option C is incorrect since $35 + 5 = 40$, and $40 \div 2 = 20$. Option D is incorrect since $35 + 15 = 50$, and $50 \div 2 = 25$.
Depth of Knowledge	1	
Focus	Solving Multi-Step Real-World Problems	

17. Mya has 16 pieces of pepperoni. She wants to put the same number of pieces on each slice of pizza. Which pizza would Mya need to use?

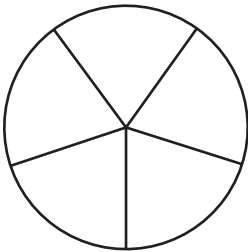
A.



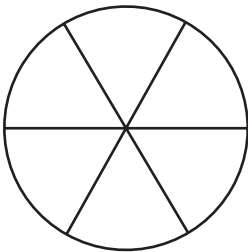
B.



C.



D.



Item Information		
Alignment	MA 4.1.2.d	Divide up to a four-digit whole number by a one-digit divisor with and without a remainder.
Answer Key	B	Option Annotations The student is asked to solve the problem by determining which pizza has a number of slices that is a factor of 16. Option B is the correct answer since 4 is a factor of 16. Option A is incorrect since 3 is not a factor of 16. Option C is incorrect since 5 is not a factor of 16. Option D is incorrect since 6 is not a factor of 16.
Depth of Knowledge	2	
Focus	Dividing Whole Number by One-Digit Divisor Using Models	

18. Which set is ordered from least to greatest?

A. $\frac{8}{9}, \frac{1}{2}, \frac{3}{4}, \frac{1}{10}$

B. $\frac{1}{10}, \frac{3}{4}, \frac{1}{2}, \frac{8}{9}$

C. $\frac{1}{10}, \frac{1}{2}, \frac{3}{4}, \frac{8}{9}$

D. $\frac{8}{9}, \frac{1}{10}, \frac{3}{4}, \frac{1}{2}$

Item Information		
Alignment	MA 4.1.1.k	Compare and order fractions having unlike numerators and unlike denominators using visual representations (number line), comparison symbols and verbal reasoning (e.g., using benchmarks or common numerators or common denominators).
Answer Key	C	Option Annotations The student is asked to identify the set of fractions that is ordered from least to greatest. Option C is the correct answer since the set of fractions is ordered from least to greatest. Option A is incorrect since the least and greatest fractions are switched. Option B is incorrect since the two middle fractions are switched. Option D is incorrect since the set of fractions is ordered by the sums of their numerators and denominators, from greatest to least.
Depth of Knowledge	2	
Focus	Ordering Fractions with Unlike Numerators and Denominators	

19. What is the word form of 0.65?

- A. sixty-five
- B. sixty-five tenths
- C. sixty-five hundredths
- D. sixty-five thousandths

Item Information		
Alignment	MA 4.1.1.a	Read, write, and demonstrate multiple equivalent representations for whole numbers up to one million and decimals to the hundredths, using objects, visual representations, standard form, word form, and expanded notation.
Answer Key	C	Option Annotations The student is asked to write the word form of the given decimal. Option C is the correct answer since the standard form of sixty-five hundredths is 0.65. Option A is incorrect since the standard form of sixty-five is 65. Option B is incorrect since the standard form of sixty-five tenths is 6.5. Option D is incorrect since the standard form of sixty-five thousandths is 0.065.
Depth of Knowledge	2	
Focus	Standard and Word Forms of Decimals to Hundredths	

20. Which fraction is equivalent to the decimal 0.43?

A. $\frac{43}{100}$

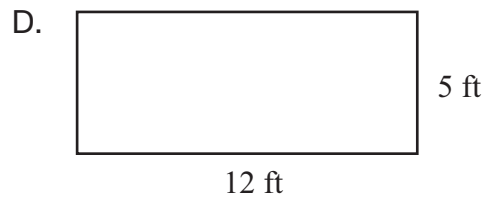
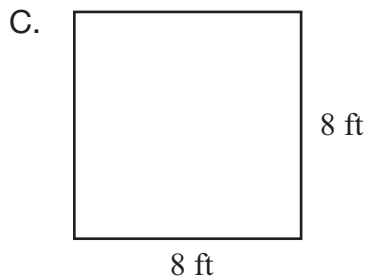
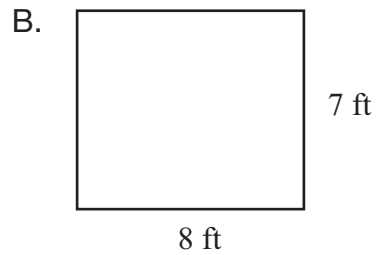
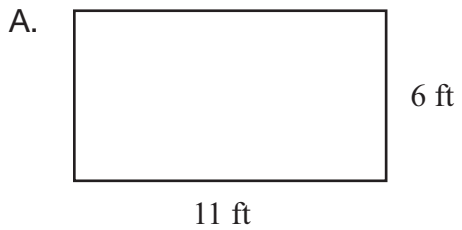
B. $\frac{4}{3}$

C. $4\frac{3}{100}$

D. $4\frac{3}{10}$

Item Information		
Alignment	MA 4.1.1.h	Use decimal notation for fractions with denominators of 10 or 100.
Answer Key	A	Option Annotations The student is asked to determine the fraction form of the given decimal. Option A is the correct answer since $\frac{43}{100}$ is equivalent to 0.43. Option B is incorrect since $\frac{4}{3}$ is equivalent to $1.\bar{3}$. Option C is incorrect since $4\frac{3}{100}$ is equivalent to 4.03. Option D is incorrect since $4\frac{3}{10}$ is equivalent to 4.3.
Depth of Knowledge	2	
Focus	Equivalent Decimal and Fraction Notations	

21. Which figure has the greatest area?



Item Information		
Alignment	MA 4.3.3.a	Apply perimeter and area formulas for rectangles.
Answer Key	A	Option Annotations The student is asked to determine which rectangle has the greatest area. Option A is the correct answer since the rectangle has the greatest area of 66 square feet. Option B is incorrect since the rectangle has an area of only 56 square feet. Option C is incorrect since the rectangle has an area of only 64 feet. Option D is incorrect since the rectangle has an area of only 60 square feet.
Depth of Knowledge	2	
Focus	Areas of Rectangles and Squares	

22. It is 7 kilometers from Sam's house to school. How many meters is it from Sam's house to school?
- A. 70 meters
 - B. 700 meters
 - C. 7,000 meters
 - D. 70,000 meters

Item Information		
Alignment	MA 4.3.3.c	Generate simple conversions from a larger unit to a smaller unit within the customary and metric systems of measurement.
Answer Key	C	Option Annotations The student is asked to solve the problem by converting the measurement given in kilometers to meters. Option C is the correct answer since 7 kilometers = 7,000 meters. Options A, B, and D are incorrect since the measurements are not converted correctly.
Depth of Knowledge	2	
Focus	Converting Kilometers to Meters	

23. Which lists all the prime numbers between 20 and 30?

- A. 21, 23
- B. 23, 25
- C. 23, 29
- D. 27, 29

Item Information		
Alignment	MA 4.1.1.c	Classify a number up to 100 as prime or composite.
Answer Key	C	Option Annotations The student is asked to find all the prime numbers between 20 and 30. Option C is the correct answer since 23 and 29 are the two prime numbers between 20 and 30. Option A is incorrect since 21 is not prime. Option B is incorrect since 25 is not prime. Option D is incorrect since 27 is not prime.
Depth of Knowledge	2	
Focus	Prime Numbers Up to 100	

AUTO-SCORED CONSTRUCTED RESPONSE ITEMS

24. Place the comparisons into the columns to show whether they are correct or incorrect.

		?
Correct	Incorrect	
		$9,732 > 9,372$
		$12.34 > 12.4$
		$4.9 = 4.90$

Answer Key – Completed Correct Response

Place the comparisons into the columns to show whether they are correct or incorrect.

		?
Correct	Incorrect	
$9,732 > 9,372$	$12.34 > 12.4$	
$4.9 = 4.90$		

Item Information		
Alignment	MA 4.1.1.f	Compare whole numbers up to one million and decimals through the hundredths place using $>$, $<$, and $=$ symbols, and visual representations.
Answer Key	See Completed Correct Response	Option Annotations The student is asked to classify the comparisons as Correct or Incorrect by placing them into the columns. The comparison $9,732 > 9,372$ belongs in the Correct column since 9,732 is greater than 9,372 (hundreds place). The comparison $12.34 > 12.4$ belongs in the Incorrect column since 12.34 is less than 12.4 (tenths place). The comparison $4.9 = 4.90$ belongs in the Correct column since both numbers represent 4 ones, 9 tenths, and 0 hundredths.
Depth of Knowledge	2	
Focus	Comparing Whole Numbers and Decimals	

25. Justin's bed is 3 feet tall.

Enter the height of the bed, in INCHES.

inches

Answer Key – Completed Correct Response

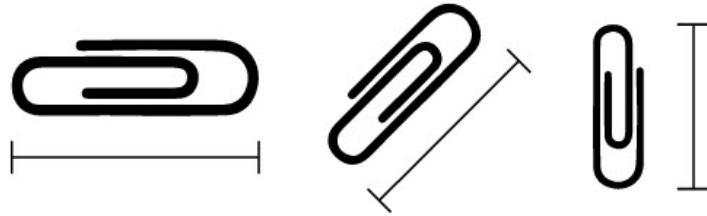
Justin's bed is 3 feet tall.

Enter the height of the bed, in INCHES.

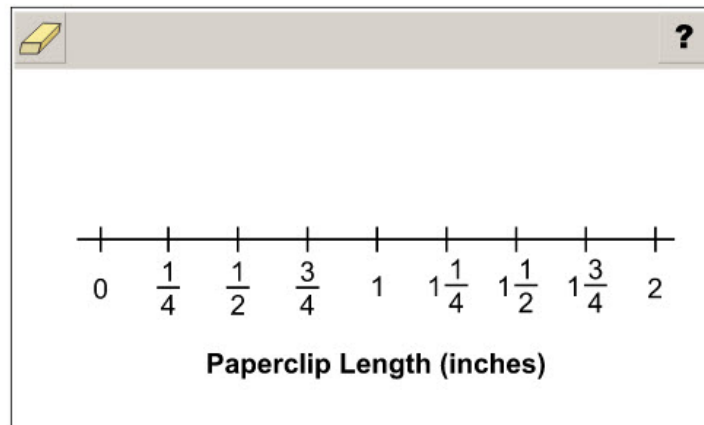
36 inches

Item Information		
Alignment	MA 4.3.3.c	Generate simple conversions from a larger unit to a smaller unit within the customary and metric systems of measurement.
Answer Key	See Completed Correct Response	Option Annotations The student is asked to solve the problem by converting the measurement given in feet to inches. The number that should be entered in the box is 36, since there are 12 inches in 1 foot, so there are $12 \times 3 = 36$ inches in 3 feet.
Depth of Knowledge	1	
Focus	Converting Feet to Inches	

26. Use the ruler tool to measure the lengths of the paperclips. Record the results in the line plot.

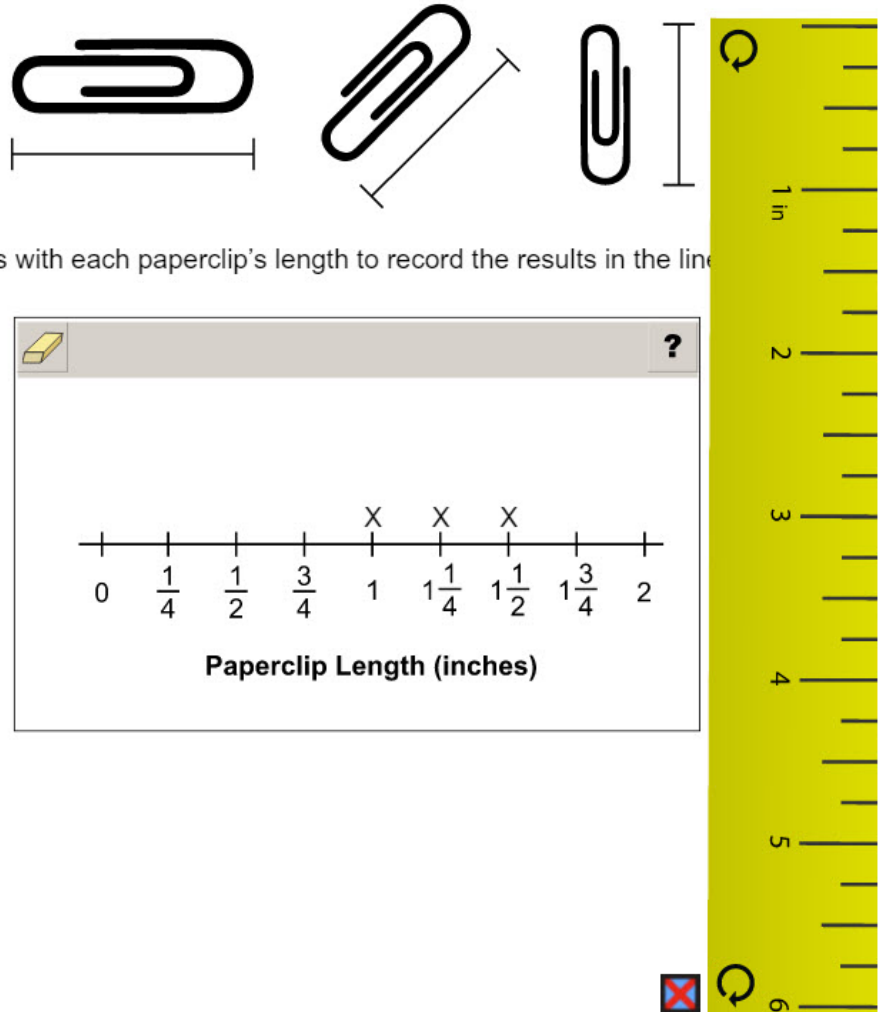


Click above the number that corresponds with each paperclip's length to record the results in the line plot below.



Answer Key – Completed Correct Response

Use the ruler tool to measure the lengths of the paperclips. Record the results in the line plot.



Item Information		
Alignment	MA 4.1.1.a	Represent data using line plots where the horizontal scale is marked off in appropriate units (e.g., whole numbers, halves, quarters, or eighths).
Answer Key	See Completed Correct Response	Option Annotations The student is asked to use a ruler to measure the paperclips and then to record the results on the line plot shown. The lengths that should be represented on the line plot are $1\frac{1}{2}$ inches, $1\frac{1}{4}$ inches, and 1 inch, since those are the lengths of the paperclips.
Depth of Knowledge	3	
Focus	Measuring and Creating Line Plot Using Quarter Units	

**NeSA-MATHEMATICS
ITEM AND SCORING SAMPLER
GRADE 4**

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