LEAP CONNECT

Directions for Practice Test Administration

Mathematics

Grade 4

DEPARTMENT of EDUCATION

Louisiana Believes

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Table of Contents

Purpose

The *Directions for Practice Test Administration* (DPTA) provides the Test Administrator (TA) of the LEAP Connect practice test with specific instructions for administration of this particular practice test. Each DPTA provides the exact wording of the items to be used by the TA, the materials needed in preparation of the practice test, and guidelines for how to present the items to the student.

Materials

Materials needed for the LEAP Connect Practice Test Administration:

1. *Directions for Practice Test Administration* (DPTA)
2. *Procedures for Assessing Students Who Are Visually Impaired, Deaf, or Deaf-Blind*
3. *Grade 4 Mathematics Practice Test Reference Materials*

Directions

1. **Know and follow all directions for test administration** provided in the DPTA and *Procedures for Assessing Students Who Are Visually Impaired, Deaf, or Deaf-Blind*.
2. Be familiar with and utilize the Text to Speech (TTS) as appropriate. The DRC INSIGHT Assessment System includes TTS that will read aloud the text of directions, items, and answer options and will also read aloud standardized descriptive statements for tables, charts, graphs, and timelines.
    a. This text is read to all students using a consistent rate of reading and tone of voice. If a student wishes to have any or all of the text repeated, click on the Starting Points button (the circle between the Stop and Play/Pause buttons). Then use the mouse to select the starting point (blue circle) just before the text that needs to be repeated.
    b. To change the volume or speed of the TTS or turn off the follow-along, select the Options button at the bottom of the screen, then select Audio Settings and adjust as desired.
    c. If the TTS will not be used, the TA can turn off the volume and the follow-along using the Audio Settings. The TA must read the directions, items, answer option text, and graphic descriptions **exactly as written** using a consistent rate of reading and tone of voice.
3. Be familiar with and utilize the Alternative Text as appropriate. Alternative Text is bracketed and written in italics. Alternative Text is included for students who are blind or have a visual impairment and require graphics to be described. This Alternative Text includes descriptive statements for tables, charts, graphs, and any graphics necessary for appropriate interaction with the items to be described.

Guidance on Printed Materials

Mathematics Practice Test Reference Materials include required graphics and the answer options for each practice test item. The DPTA will prompt the TA when the required graphics are to be presented to the student. The answer options are included so they can be copied and used as needed (e.g., eye-gaze boards).

Selected-Response Items

Selected-response items are presented to students in the following order:

- Item stimulus (which may include an example, picture, graphic, equation, formula, or other illustration)
- Item question
- Answer options (which are indicated by radio buttons and presented vertically)

Students independently select a response from the options. Being mindful that students will respond in a variety of ways (e.g., with words, gestures, eye gaze, communication devices, assistive technology, etc.), TAs can enter responses on behalf of the student. Ensure that Augmentative and Alternative Communication (AAC) and Assistive Technology (AT) used routinely for instruction are available to support the student in communicating responses. Each item will indicate the use of a calculator in the DPTA and DRC INSIGHT. Students with a calculator accommodation may use a calculator for all practice test questions.

Mathematics Selected-Response Item Example

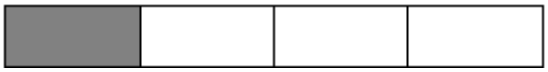
The LEAP Connect practice test items reflect grade-level content presented at varying degrees of complexity. The following item example illustrates a selected-response item and components which support the ways that students with a wide range of learner characteristics are presented with practice test items. The following item example does not reflect ALL content that is assessed in each grade-level content area and does not represent every degree of complexity.

Mathematics Item Example

This item is about fractions. ← TTS or TA reads item directions.

This fraction bar is divided into 4 equal parts.

Point to each part. ← Directions for TA to point to aspects of item on the computer screen or in the *Reference Materials* (RM).



There is 1 part that is shaded. ← TTS or TA reads item text.

Point to the shaded part.

Directions for TA to point to shaded part on screen or in RM.

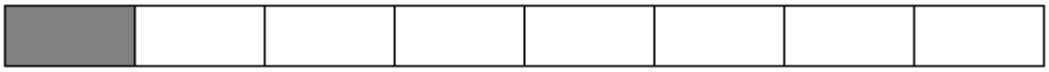
This fraction shows that 1 of the 4 parts is shaded.

Point to the fraction.

Directions for TA to point to the fraction on screen or in RM.

$$\frac{1}{4}$$

This fraction bar is divided into equal parts.



There is 1 part shaded.

Point to the shaded part.

What part of the fraction is shaded?

TTS or TA reads question text.

Point to each option as the TTS or TA reads each option.

Directions for TA to point to each answer option as the TTS or TA reads each option on screen or in RM.

A. $\frac{1}{2}$

B. $\frac{1}{4}$

TTS or TA reads answer choices.

C. $\frac{1}{8}$

Procedures for Constructed-Response (CR) Tasks

The CR tasks require students to construct an answer rather than select an answer from multiple-choice options. The TA must enter the student CR score into DRC INSIGHT. The CR task is presented to the student in a standardized, scripted sequence of steps, culminating in a TA's scoring of the student performance according to the Mathematics Scoring Rubric. The Mathematics Scoring Rubrics are included with the appropriate CR tasks in the DPTA and provide scoring standards that must be used to evaluate student responses.

Administering the CR Tasks

- Become familiar with the CR tasks and setup requirements.
- Rehearse administering each task before administering it to a student by reading the script for each task.
- Become familiar with the scoring rubric and directions for scoring the student response.
- Prepare the test setting:
    - Assemble any needed materials (pencils, markers, etc.).
    - Provide any allowable manipulatives (e.g., counters).
    - Have a calculator available.
    - Provide materials required for student accommodations.
    - Position the student so that they will have the optimal vantage to view and manipulate materials in order to facilitate sustained attention.
    - Eliminate noise and visual distractions that may divert the student's attention.
    - Collect all printed materials that the student will need.
    - Enlarge any stimulus materials, using the enlarge feature on a printer or copier, if needed.
    - Locate the appropriate stimulus material, which is identified by name on the front of each for ease of handling before, during, and after test administration. Cut the stimulus materials apart (if applicable).

Scoring the Mathematics CR Tasks

In order to have consistent and reliable CR scoring, TAs must understand and apply the Mathematics Scoring Rubrics in the same way to every student's response.

Independently score a student's performance on the CR tasks. Being mindful that students will respond in a variety of ways (e.g., with words, gestures, eye gaze, communication devices, assistive technology, etc.), careful and meticulous observation will enable the TA to accurately assign the appropriate score point based on the Mathematics Scoring Rubrics in the DPTA.

Procedures for Entering the Student Score for CR Tasks

Record the student score in the DRC INSIGHT Assessment System. Answer options will be: "The student provided the correct answer." or "The student did not provide the correct answer." After recording the student score, continue to the next item.

Session 1

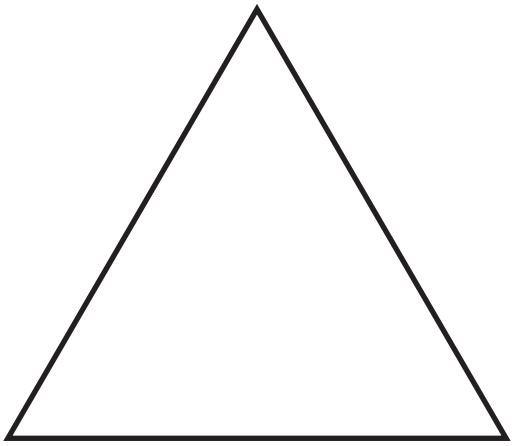
Calculator may be used on this item.

Item 1

This item is about shapes.

This is a triangle. It has angles.

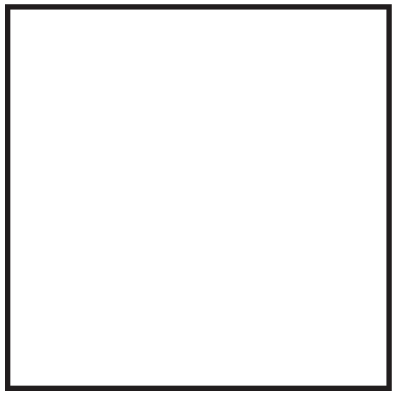
Point to each option as the TTS or TA reads each option.



Which shape has angles?

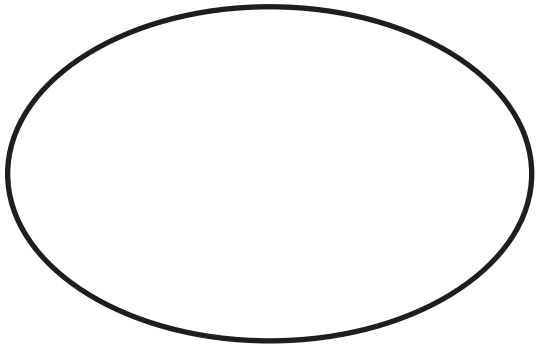
Point to each option.

[For students with visual impairment, read "A. This is a picture of a square."]

A. 

Item 1, continued

[For students with visual impairment, read "B. This is a picture of an oval."]

B. 

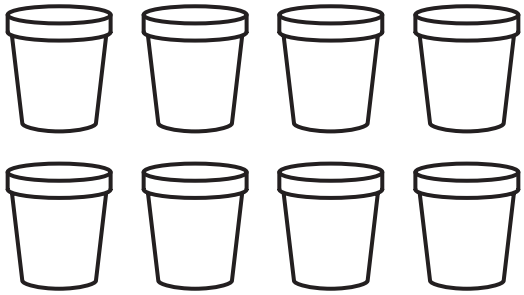
Calculator may be used on this item.

Item 2

This item is about multiplying numbers.

This array shows an expression 2 *[Graphic description: "times"]* × 4.

Point to the array.



There are 2 rows of pots.

Point to each row of pots.

Each row has four pots.

This is another expression.

Point to the expression as the TTS or TA reads the expression.

[Graphic description: "three times two"]

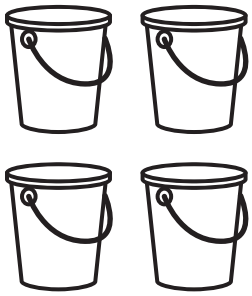
$$3 \times 2$$

Item 2, continued

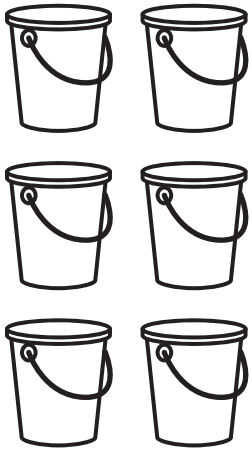
Which array shows the expression 3 *[Graphic description: "times"]* × 2?

Point to each option.

[For students with visual impairment, read "A. This is a picture of two rows of buckets. There are two buckets in the first row and two buckets in the second row."]

A. 

[For students with visual impairment, read "B. This is a picture of three rows of buckets. There are two buckets in the first row, two buckets in the second row, and two buckets in the third row."]

B. 

Calculator may be used on this item.

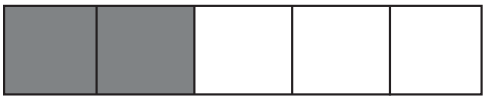
Item 3

This item is about fractions.

Which pair has two fraction bars that are each shaded the same amount?

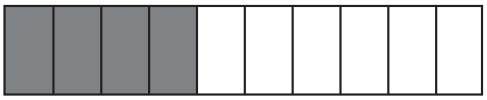
Point to each option as the TTS or TA reads each option.

[For students with visual impairment, read "A. This is a picture of two fraction bars. The first fraction bar is divided into five equal parts. Two parts are shaded. The fraction bar is labeled two out of five. The second fraction bar is divided into ten equal parts. Four parts are shaded. The fraction bar is labeled four out of ten."]



$\frac{2}{5}$

A.



$\frac{4}{10}$

[For students with visual impairment, read "B. This is a picture of two fraction bars. The first fraction bar is divided into five equal parts. Four parts are shaded. The fraction bar is labeled four out of five. The second fraction bar is divided into ten equal parts. Six parts are shaded. The fraction bar is labeled six out of ten."]

$\frac{4}{5}$

B.

$\frac{6}{10}$

Calculator may be used on this item.

Provide student with Graph 1, "Parked Automobiles" from the Grade 4 Mathematics Practice Test Reference Materials.

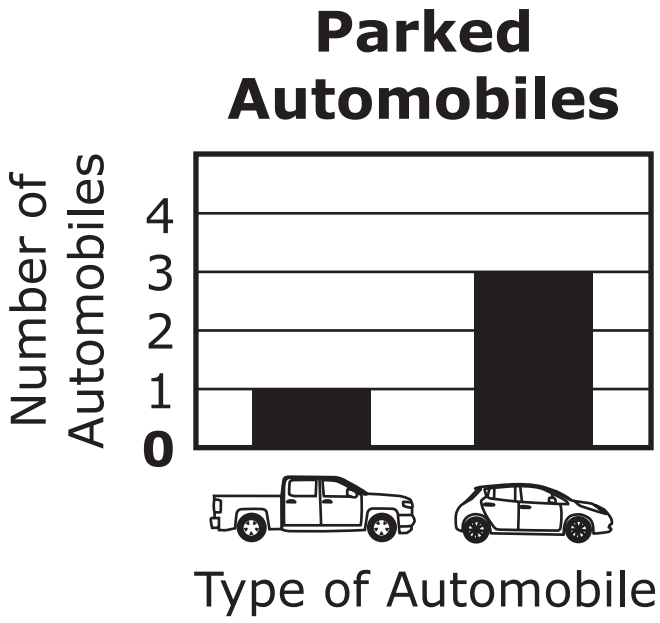
Item 4

This item is about data.

Colin counted the number of trucks and cars he saw parked across the street. He made this bar graph.

Point to the bar graph as the TTS or TA reads the graphic description.

[Graphic description: "This is a data table titled, 'Parked Automobiles.' It shows the number of trucks and the number of cars parked. There is one truck parked and there are three cars parked."]

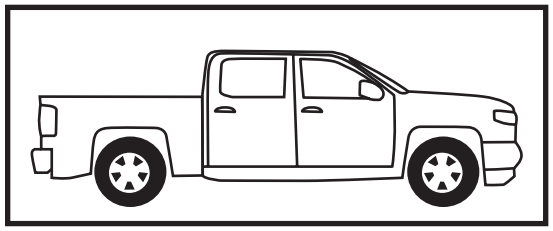


Item 4, continued

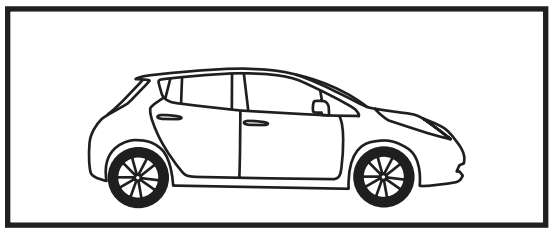
Which type of automobile did Colin count more of parked across the street?

Point to each option.

[For students with visual impairment, read "A. This is a picture of a truck."]

A. 

[For students with visual impairment, read "B. This is a picture of a car."]

B. 

Calculator may be used on this item.

Item 5

This item is about solving word problems.

Tony planted 3 rows of onions in his garden. He planted 6 onions in each row.

This picture shows one row of onions.

Point to the onions.

Tony planted 3 *[Graphic description: "times"]* × 6 *[Graphic description: "equals"]* = 18 onions.

Which expression can be used to check the number of onions Tony planted?

Point to each option as the TTS or TA reads each graphic description.

[Graphic description: "A. three plus six plus three."]

A. 3 + 6 + 3

[Graphic description: "B. three plus three plus three."]

B. 3 + 3 + 3

[Graphic description: "C. six plus six plus six."]

C. 6 + 6 + 6

Calculator may be used on this item.

Item 6

This item is about comparing fractions using fraction bars.

Each fraction bar is equal in size and shape.

This fraction bar shows *[Graphic description: "three-fifths"]* $\frac{3}{5}$ because three parts out of five are shaded.

Point to the fraction bar.

[For students with visual impairment, read "This is a fraction bar divided into five equal parts. Three parts are shaded."]

Which fraction is greater than *[Graphic description: "three-fifths"]* $\frac{3}{5}$?

Point to each option as the TTS or TA reads each graphic description.

[Graphic description: "A. This is a fraction bar divided into four equal parts. Two parts are shaded. It is labeled two-fourths."]

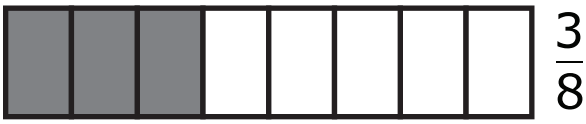
A.  $\frac{2}{4}$

[Graphic description: "B. This is a fraction bar divided into ten equal parts. Seven parts are shaded. It is labeled seven-tenths."]

B.  $\frac{7}{10}$

Item 6, continued

[Graphic description: "C. This is a fraction bar divided into eight equal parts. Three parts are shaded. It is labeled three-eighths."]

C.  $\frac{3}{8}$

Calculator may be used on this item.

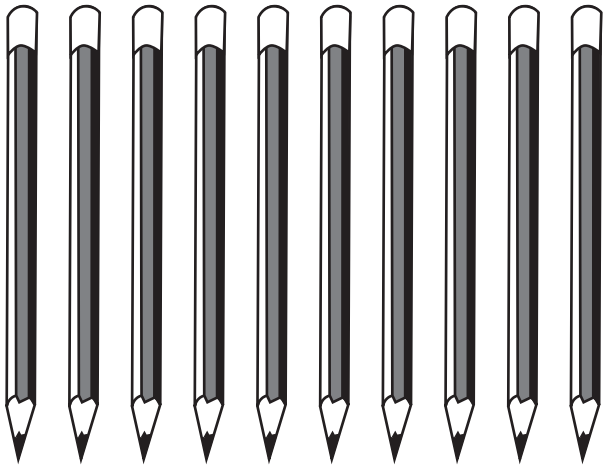
Provide student with at least 10 counters or other manipulatives to use if needed.

Item 7

This item is about dividing objects into equal groups.

Mindy has 10 pencils.

Point to the pencils.



Mindy divided the pencils into 5 equal groups.

How many pencils did Mindy put into each group?

Point to each option as the TTS or TA reads each option.

A. 2 pencils

B. 4 pencils

C. 5 pencils

Calculator may be used on this item.

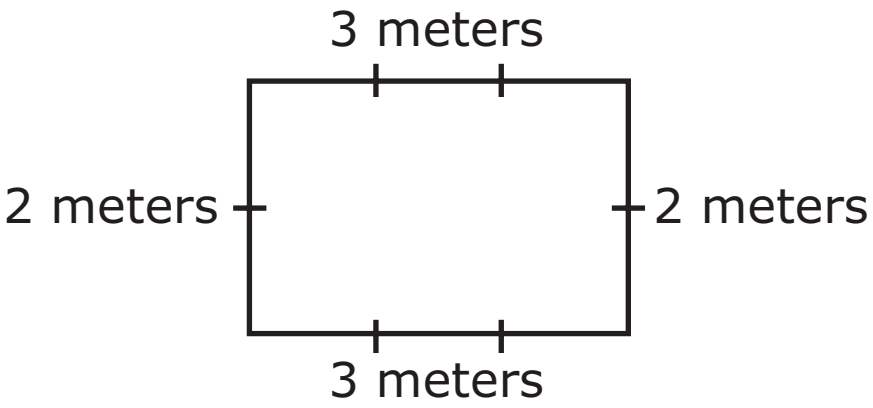
Item 8

This item is about the perimeter of rectangles.

The perimeter is the distance around a shape.

This is a rectangle.

> *Point to the rectangle. Point to each dimension as the TTS or TA reads the graphic description.*
>
> *[Graphic description: "Perimeter equals two plus three plus two plus three equals ten meters."]*



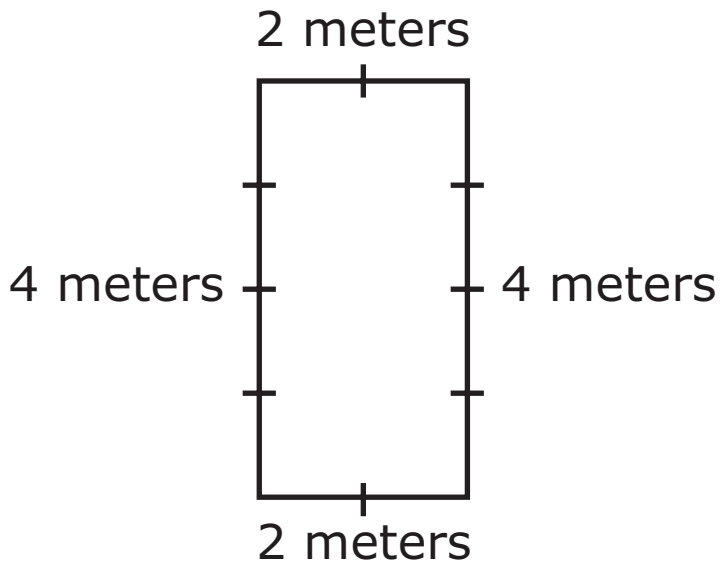
Perimeter = 2 + 3 + 2 + 3 = 10 meters

The perimeter of the rectangle is 10 meters.

Item 8, continued

This is a picture of a rectangular garden. One side of the garden is 4 meters and the other side is 2 meters.

Point to each dimension as the TTS or TA reads the dimensions.



What is the perimeter of the rectangular garden?

Point to each dimension as the TTS or TA reads each option.

A. 6 meters

B. 8 meters

C. 12 meters

Calculator may be used on this item.

Provide student with at least 12 counters or other manipulatives to use if needed.

Item 9

This item is about dividing objects into groups.

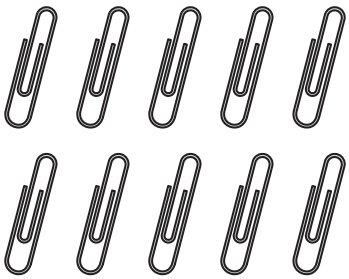
Jan had 10 paper clips in her desk.

Point to the paper clips.

Jan divided the paper clips into 2 equal groups.

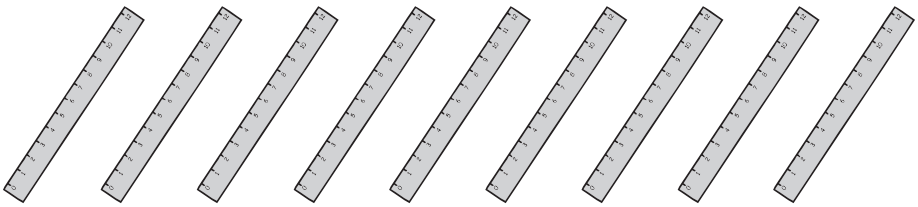
Point to each group.

[For students with visual impairments, read "This is a picture of two groups of paper clips. Each group has five paper clips."]



Alice had 9 rulers.

Point to the rulers.



Alice put the rulers into 3 equal groups.

Item 9, continued

How many rulers did Alice put into each group?

Point to each option as the TTS or TA reads each option.

A. 2 rulers

B. 3 rulers

C. 6 rulers

Calculator may be used on this item.

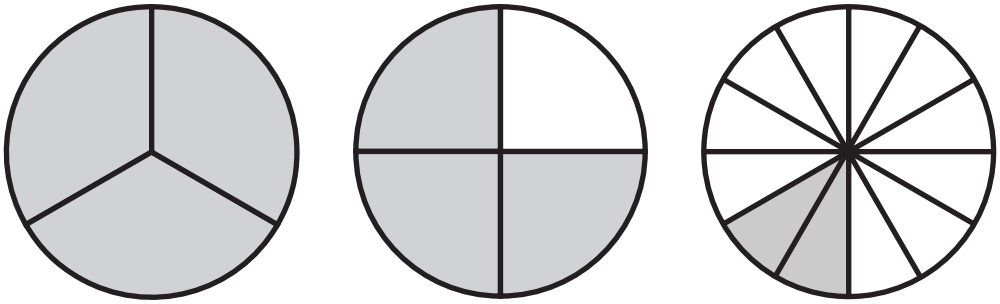
Item 10

This item is about comparing fractions using fraction circles. Each fraction circle is equal in size and shape.

These are 3 fraction circles.

Point to each fraction circle as the TTS or TA reads the graphic description.

[Graphic description: "The first fraction circle is divided into three equal parts. Three parts are shaded. It is labeled three-thirds. The second fraction circle is divided into four equal parts. Three parts are shaded. It is labeled three-fourths. The third fraction circle is divided into twelve equal parts. Two parts are shaded. It is labeled two-twelfths."]



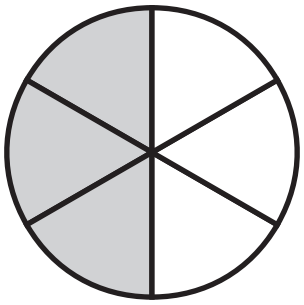
$\frac{3}{3}$ $\frac{3}{4}$ $\frac{2}{12}$

Item 10, continued

This fraction circle shows *[Graphic description: "three-sixths"]* $\frac{3}{6}$ because three parts out of six are shaded.

Point to the fraction circle.

[For students with visual impairment, read "This is a fraction circle divided into six equal parts. Three parts are shaded. It is labeled three-sixths."]



$\frac{3}{6}$

Which fraction is less than *[Graphic description: "three-sixths"]* $\frac{3}{6}$?

Point to each option as the TTS or TA reads each graphic description.

[Graphic description: "A. three-thirds"]

A. $\frac{3}{3}$

[Graphic description: "B. three-fourths"]

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

[Graphic description: "C. two-twelfths"]

C. $\frac{2}{12}$

Calculator may be used on this item.

Item 11

This item is about solving word problems.

Patty had 13 buttons. Charlene had 3 times as many buttons as Patty.

How many buttons did Charlene have?

Point to each option as the TTS or TA reads each option.

A. 16

B. 39

C. 42

Calculator may be used on this item.

Item 12

This item is about comparing fractions.

This is the symbol for equal to.

Point to the equal symbol.

=

This is the symbol for less than.

Point to the less than symbol.

<

This is the symbol for greater than.

Point to the greater than symbol.

>

These are two fraction bars. Each fraction bar is equal in size and shape.

Point to each fraction bar as the TTS or TA reads the graphic description.

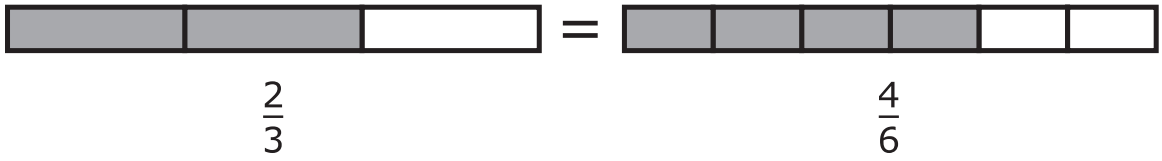
[Graphic description: "This is a picture of two fraction bars. The first fraction bar is divided into three equal parts. Two parts are shaded. The fraction bar is labeled two-thirds. The second fraction bar is divided into six equal parts. Four parts are shaded. The fraction bar is labeled four-sixths."]

Item 12, continued

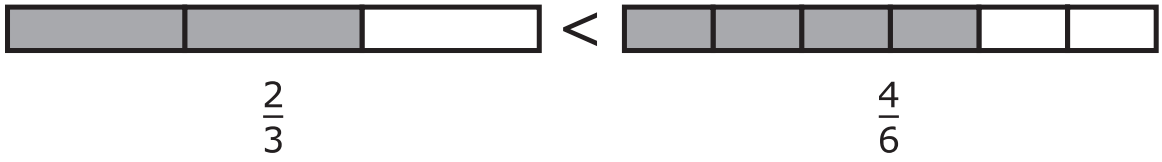
Which of the following correctly compares the fractions?

Point to each option as the TTS or TA reads each graphic description.

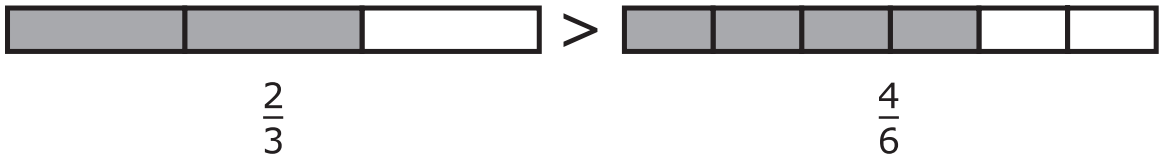
[Graphic description: "A. two-thirds equals four-sixths."]

A. 

[Graphic description: "B. two-thirds is less than four-sixths."]

B. 

[Graphic description: "C. two-thirds is greater than four-sixths."]

C. 

Calculator may be used on this item.

Item 13

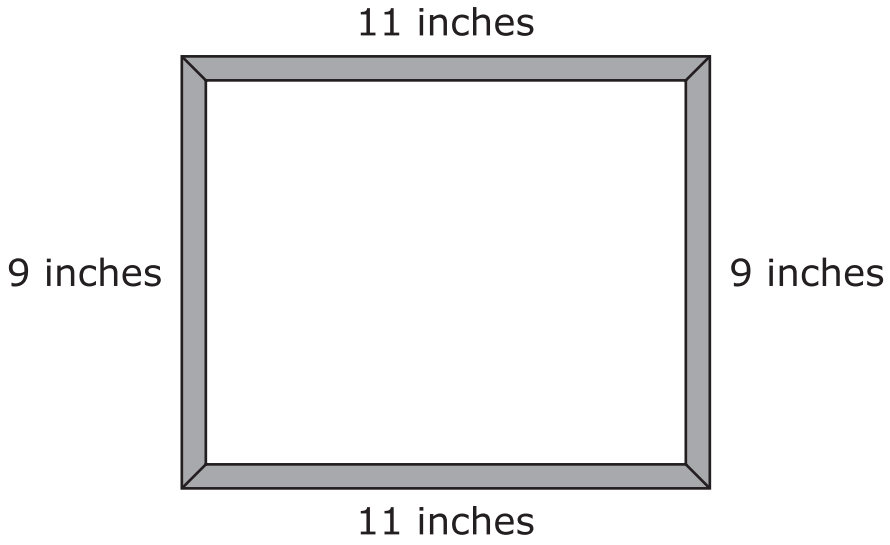
This item is about the perimeter of rectangles.

The perimeter is the distance around a shape.

Gus has two picture frames. Each frame is the shape of a rectangle.

The first picture frame has a width of 9 inches and a length of 11 inches.

> *Point to the picture frame. Point to each dimension as the TTS or TA reads the graphic description.*
>
> *[Graphic description: "Perimeter equals nine plus eleven plus nine plus eleven equals forty inches."]*



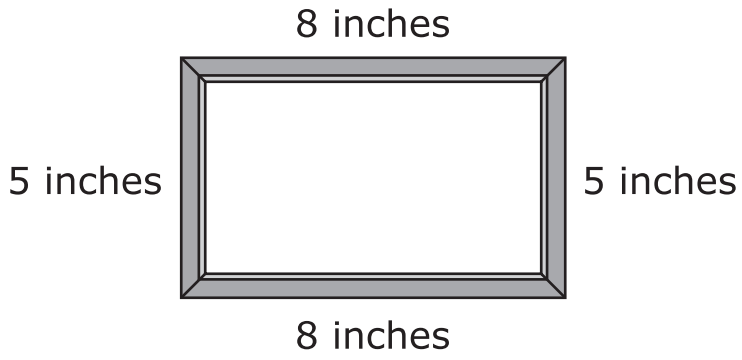
Perimeter = 9 + 11 + 9 + 11 = 40 inches

The perimeter of Gus's first picture frame is 40 inches.

Item 13, continued

Gus's second picture frame has a width of 5 inches and a length of 8 inches.

Point to each dimension as the TTS or TA reads the dimensions to the student.



What is the perimeter of Gus's second picture frame?

Point to each option as the TTS or TA reads each option.

A. 13 inches

B. 21 inches

C. 26 inches

Calculator may be used on this item.

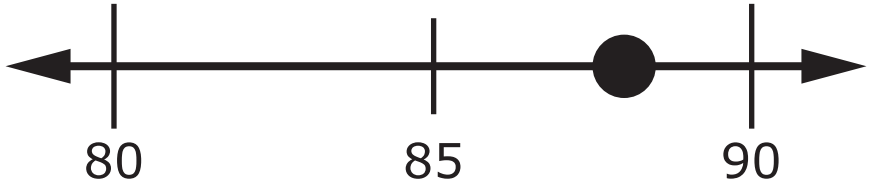
Item 14

This item is about using place value to round numbers.

This is a number line. This is the number 88.

Point to the location of the number 88 on the number line.

[For students with visual impairment, read "This is a number line beginning at the number eighty on the left, followed by two equally spaced marks, ending on the right at ninety. The first mark after eighty is labeled eighty-five. There is a point between the marks of eighty-five and ninety."]



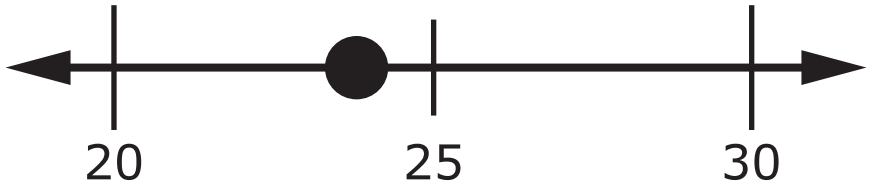
The number 88 is closer to 90 than it is to 80. The number 88 rounded to the nearest ten is 90.

Point to the location of the number 88 and then the number 90 on the number line.

This is another number line. This is the number 24.

Point to the location of the number 24 on the number line.

[For students with visual impairment, read "This is a number line beginning at the number twenty on the left, followed by two equally spaced marks, ending on the right at thirty. The first mark after twenty is labeled twenty-five. There is a point between the marks of twenty and twenty-five."]



Item 14, continued

What is the number 24 rounded to the nearest ten?

Point to each option as the TTS or TA reads each option.

A. 20

B. 25

C. 30

Calculator may be used on this item.

Provide student with Diagram 1 of Books from the Grade 4 Mathematics Practice Test Reference Materials.

Item 15

This item is about solving word problems.

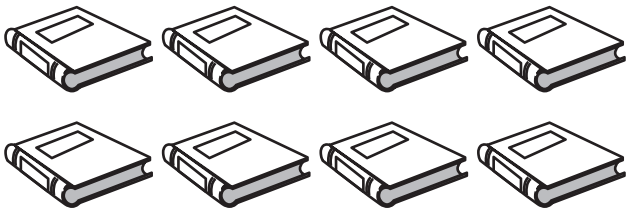
This is a picture of the 4 books Nate had.

Point to the books.

Danny had 2 times as many books as Nate.

Point to each row of books as the TTS or TA reads the graphic description.

[Graphic description: "This is a picture of two groups of books. Each group has four books."]



Which equation shows how many books Danny had?

Point to each option as the TTS or TA reads each graphic description.

[Graphic description: "Two times four equals eight."]

A. $2 \times 4 = 8$

[Graphic description: "Two plus four equals six."]

B. $2 + 4 = 6$

[Graphic description: "Two times two equals four."]

C. $2 \times 2 = 4$

Calculator may be used on this item.

Provide student with Table 1, "Kitten Weight," line plot, and X tiles from the Grade 4 Mathematics Practice Test Reference Materials.

Item 16

This item is about using data to make a line plot.

This data table shows the weight of different kittens.

Point to the data table as the TTS or TA reads the graphic description.

[Graphic description: "This is a data table titled, 'Kitten Weight.' It shows the weight, in pounds, of numbers of kittens. There are three kittens with a weight of one-fourth pound. There are two kittens with a weight of one-half pound. There is one kitten with a weight of three-fourths pound."]

Kitten Weight

Weight (in pounds)	Number of Kittens
$\frac{1}{4}$	3
$\frac{1}{2}$	2
$\frac{3}{4}$	1

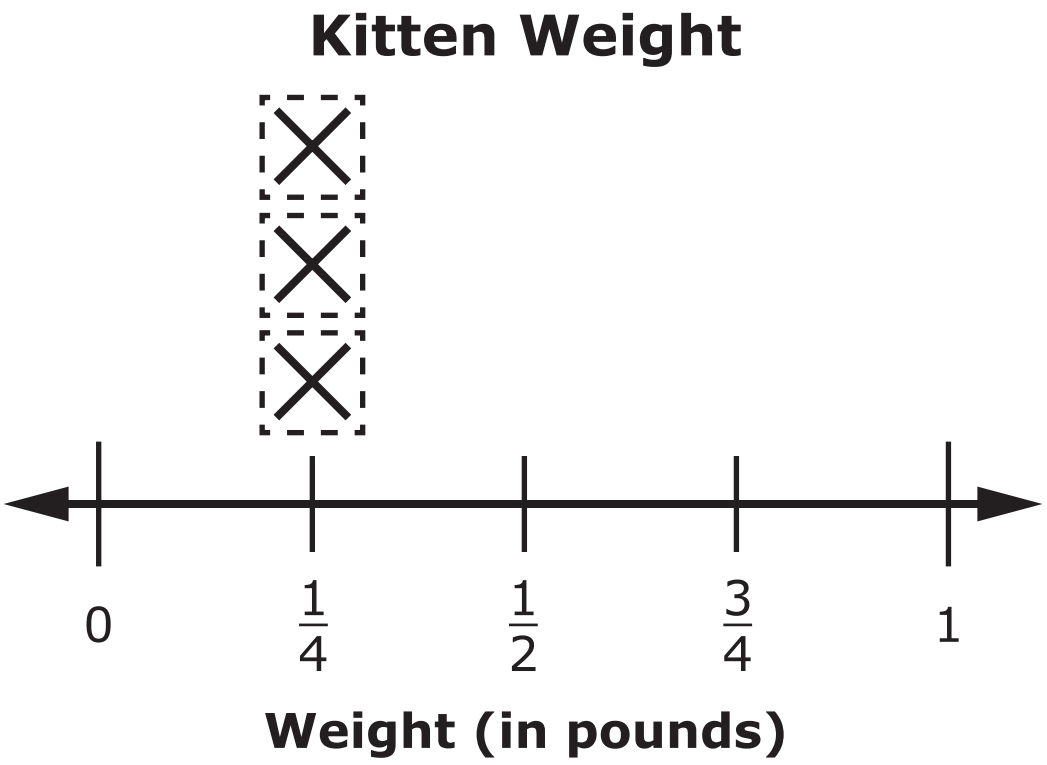
Item 16, continued

This is a line plot that is used to show the information in the data table.

Place the line plot and the X tiles on the work surface in front of the student.

Point to the title and label on the line plot as the TTS or TA reads the graphic descriptions.

[Graphic description: "This is a line plot titled, 'Kitten Weight' with a label that reads, Weight, in pounds. It shows the weight, in pounds, of numbers of kittens."]



[Graphic description: "These are X tiles to use to complete the line plot."]

The data table shows that there are 3 kittens that each have a weight of *[Graphic description: "one-fourth"]* $\frac{1}{4}$ pound.

Point to the one-fourth pound row in the data table.

Item 16, continued

The line plot shows that there are 3 kittens that each have a weight of *[Graphic description: "one-fourth"]* $\frac{1}{4}$ pound.

Point to the X tiles above one-fourth pound on the line plot.

The data table shows that there are 2 kittens that each have a weight of *[Graphic description: "one-half"]* $\frac{1}{2}$ pound.

Point to the one-half pound row in the data table.

So, 2 X tiles need to be placed above the weight *[Graphic description: "one-half"]* $\frac{1}{2}$ pound on the line plot.

Move 2 X tiles above one-half pound on the line plot.

Complete the line plot by showing the number of kittens that each have a weight of *[Graphic description: "three-fourths"]* $\frac{3}{4}$ pound.

Point to the line plot.

These are X tiles to use to complete the line plot. Not all of the X tiles need to be used.

Point to the 5 X tiles.

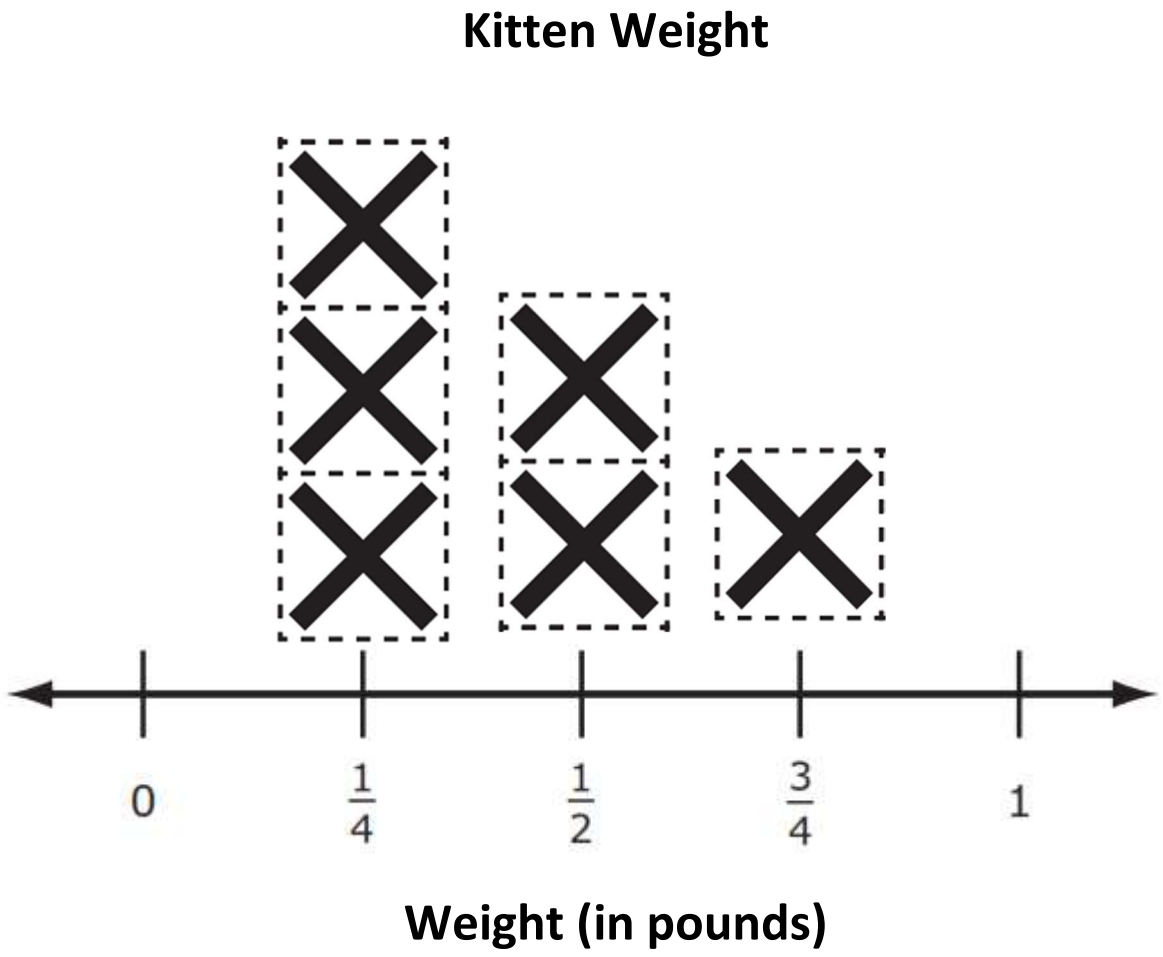
Allow time for the student to respond.

Rubric

Test Administrator: *After student completes work, record on the computer if the student provided the correct answer or the student did not provide the correct answer.*

Score	Description
1	Student correctly places exactly 1 X tile above ¾ pound on the line plot.
0	Student does not correctly place exactly 1 X tile above ¾ pound on the line plot.

Sample Response



Calculator may be used on this item.

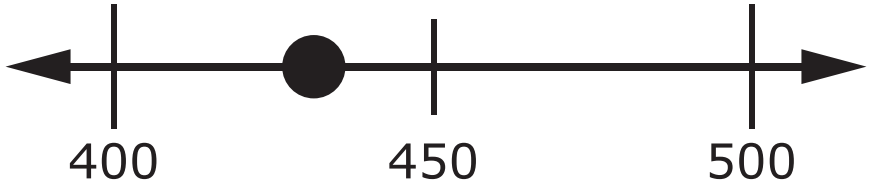
Item 17

This item is about using place value to round numbers.

This number line is used to help round the number 437 to the nearest hundred.

Point to the number line.

[For students with visual impairment, read "This is a number line beginning at the number four hundred on the left, followed by two equally spaced marks, ending on the right at five hundred. The first mark after four hundred is labeled four hundred fifty. There is a point between the marks of four hundred and four hundred fifty."]



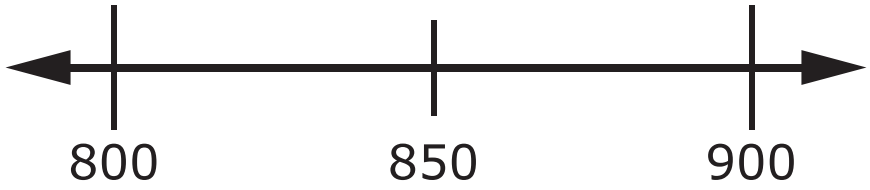
The number 437 is closer to 400 than it is to 500 on the number line.

Point to the location of number 437 and then number 400 on the number line.

This is another number line. This number line can be used to round 889 to the nearest hundred.

Point to the number line.

[For students with visual impairment, read "This is a number line beginning at the number eight hundred on the left, followed by two equally spaced marks, ending on the right at nine hundred. The first mark after eight hundred is labeled eight hundred fifty."]



Item 17, continued

What is 889 rounded to the nearest hundred?

Point to each option as the TTS or TA reads each option.

A. 800

B. 850

C. 900

Calculator may be used on this item.

Provide students with Incomplete Chart 1, "4 Angles" and shapes from the Grade 4 Mathematics Practice Test Reference Materials.

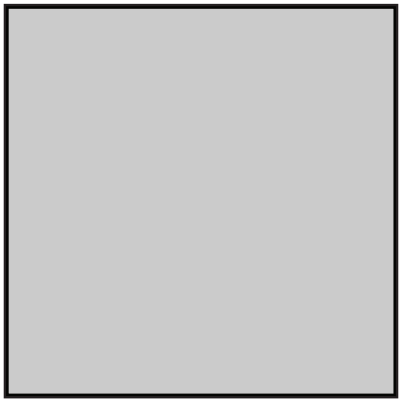
Item 18

This item is about classifying shapes.

Shapes can be sorted into groups based on the number of angles of each shape.

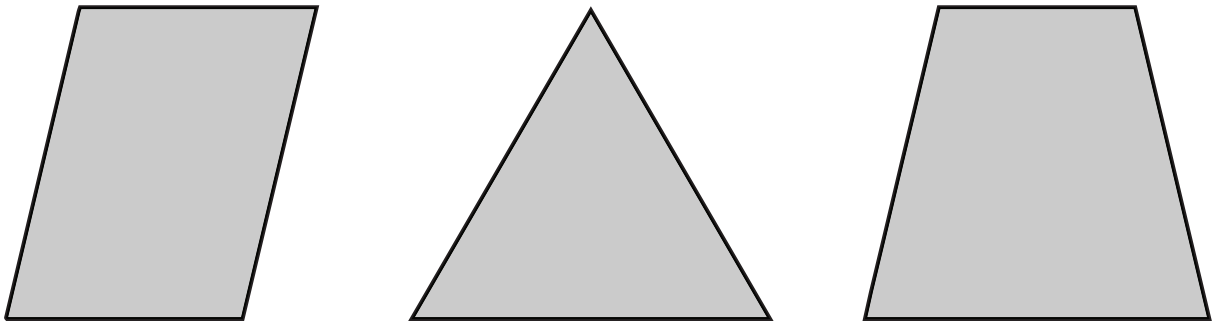
This is a square. It has 4 angles.

Point to the square.



These are some shapes. Not all of the shapes have 4 angles.

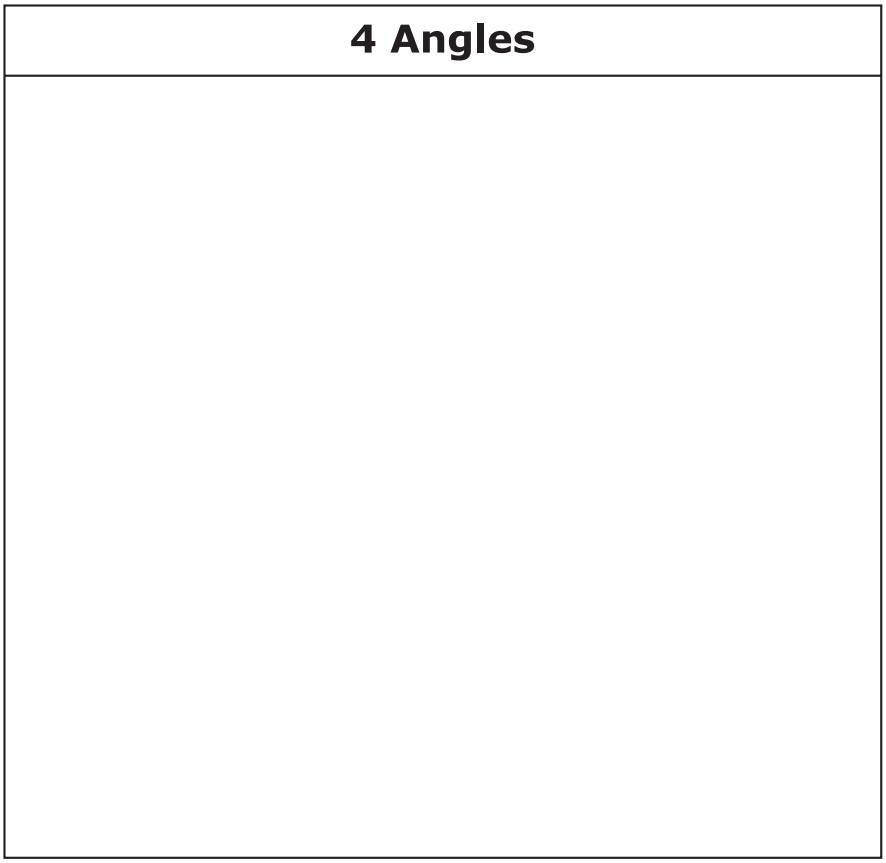
Place each shape onto the work surface in a line from left to right in front of the student. Point to each shape without naming the shapes.



Item 18, continued

This is a chart.

Place the incomplete chart onto the work surface in front of the student.



Look at the number of angles each shape has. Select the shapes that have 4 angles and place them onto the chart.

Allow time for the student to respond.

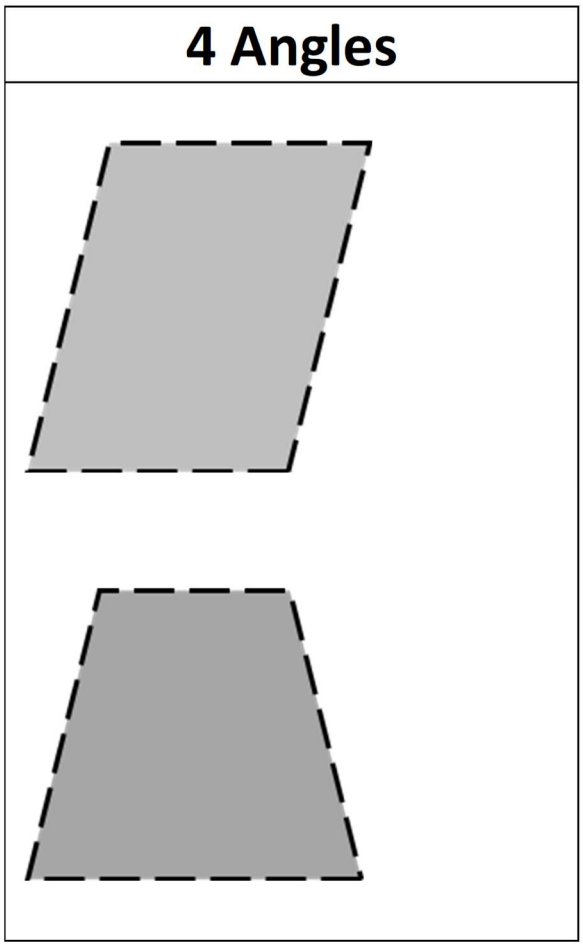
Rubric

Test administrator: *After student completes work, record on the computer if the student provided the correct answer or the student did not provide the correct answer.*

Score	Description
1	Student correctly places exactly 2 shapes with 4 angles in the tables.
0	Student does not correctly place exactly 2 shapes with 4 angles in the tables.

Item 18, continued

Sample Response



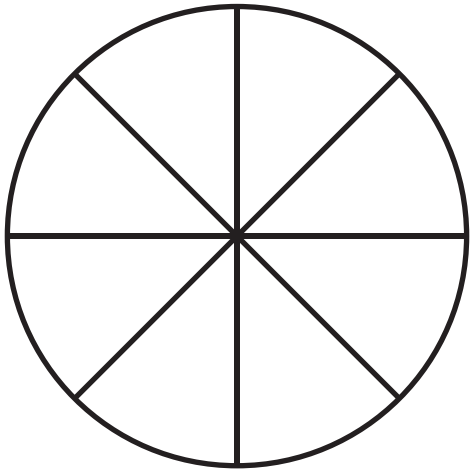
Calculator may be used on this item.

Item 19

This item is about parts of a whole figure.

This is a circle that is divided into 8 equal parts. Each part is one-eighth of the circle.

Point to the circle and each part.

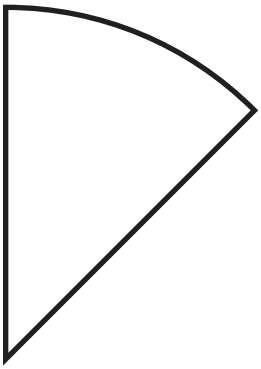


Which picture shows one-eighth of the circle?

Point to each option.

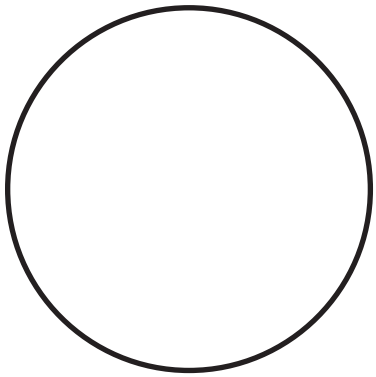
[For students with visual impairment, read "A. This is a picture of a wedge."]

A.



Item 19, continued

[For students with visual impairment, read "B. This is a picture of a circle."]

B. 

Calculator may be used on this item.

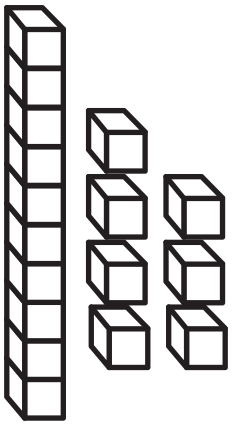
Item 20

This item is about rounding numbers.

This model shows the number 17.

Point to the model.

[For students with visual impairment, read "This is a picture of seventeen blocks."]



Which model shows a number that is closer to the number 17?

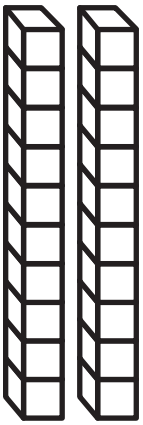
Point to each option.

[For students with visual impairment, read "A. This is a picture of ten blocks."]

A. 

Item 20, continued

[For students with visual impairment, read "B. This is a picture of twenty blocks."]

B. 

You have reached the end of this Session.

You may choose from the following options:

- Review items in this session
- **Pause** this test and **Resume** later
- Complete this session (**End Test**, then **Submit**) and begin Session 2.

Session 2

Calculator may be used on this item.

Item 21

This item is about comparing fractions. Each fraction bar is equal in size and shape.

This fraction bar shows *[Graphic description: "two-thirds"]* $\frac{2}{3}$ because 2 parts out of 3 are shaded.

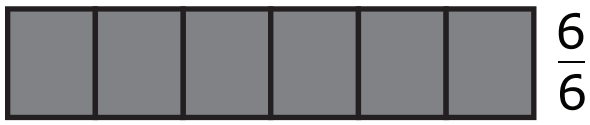
Point to the fraction bar.

[For students with visual impairment, read "This is a fraction bar divided into three equal parts. Two parts are shaded. It is labeled two-thirds."]

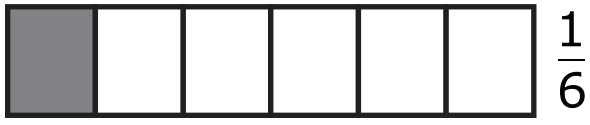
Which fraction bar shows a fraction that has greater than *[Graphic description: "two-thirds"]* $\frac{2}{3}$ shaded?

Point to each option as the TTS or TA reads each graphic description.

[Graphic description: "A. This is a fraction bar divided into six equal parts. Six out of six parts are shaded. It is labeled six-sixths."]

A. 

[Graphic description: "B. This is a fraction bar divided into six equal parts. One out of six parts is shaded. It is labeled one-sixth."]

B. 

Calculator may be used on this item.

Provide student with at least 12 counters or other manipulatives to use if needed and Diagram 2 of Dimes, Groups of Dimes, and Pens from the Grade 4 Mathematics Practice Test Reference Materials.

Item 22

This item is about dividing objects into equal groups.

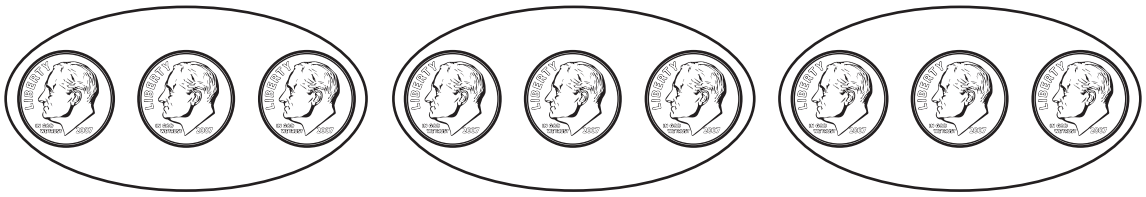
Dennis had nine dimes.

Point to the dimes.

Dennis divided the dimes into 3 equal groups.

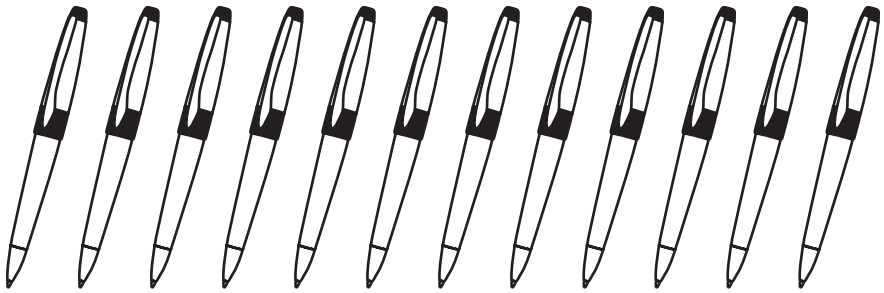
Point to each group.

[For students with visual impairment, read "This is a picture of three groups of dimes. Each group has three dimes."]



Steven had 12 pens.

Point to the pens.



Steven put the pens into 4 equal groups.

Item 22, continued

How many pens did Steven put into each group?

Point to each option as the TTS or TA reads each option.

A. 3 pens

B. 4 pens

C. 6 pens

Calculator may be used on this item.

Provide student with Table 2, "Reading Time," line plot, and X tiles from the Grade 4 Mathematics Practice Test Reference Materials.

Item 23

This item is about using data to make a line plot.

The data table shows the amount of time Aisha spent reading.

Point to the data table as the TTS or TA reads the graphic description.

[Graphic description: "This is a data table titled, 'Reading Time.' It shows the amount of time, in hours, Aisha spent reading over a number of days. Aisha spent one hour reading over four days. Aisha spent one and one-half hours reading over two days. Aisha spent two hours reading over one day."]

Reading Time

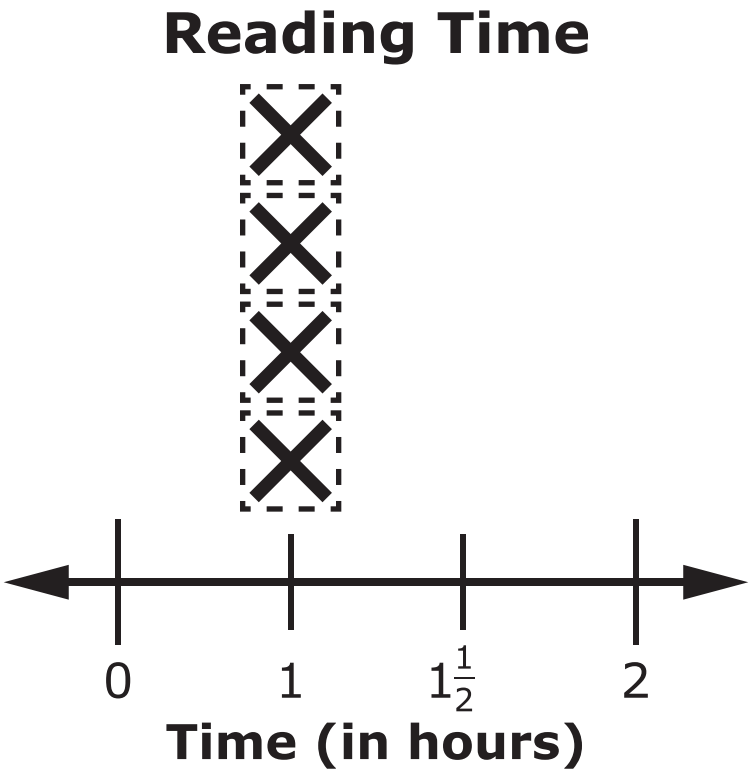
Time (in hours)	Number of days
1	4
$1\frac{1}{2}$	2
2	1

Item 23, continued

This is a line plot that is used to show the information in the data table.

Place the line plot and X tiles on the work surface in front of the student. Point to the titles and labels on the line plot as the TTS or TA reads the graphic descriptions.

[Graphic description: "This is a line plot titled, 'Reading Time' with a label that reads, Time, in hours. It shows the times, in hours, Aisha spent reading."]



[Graphic description: "These are X tiles to use to complete the chart."]

The data table shows that there were 4 days that Aisha read for 1 hour.

Point to the 1-hour row in the data table.

The line plot shows that there were 4 days that Aisha read for 1 hour.

Point to the 1-hour column in the line plot.

Item 23, continued

The data table shows that there were 2 days that Aisha read for *[Graphic description: "one and one-half"]* $1\frac{1}{2}$ hours.

Point to the $1\frac{1}{2}$ hours row in the data table.

So, 2 tiles need to be above *[Graphic description: "one and one-half"]* $1\frac{1}{2}$ hours on the line plot.

Move 2 X tiles above $1\frac{1}{2}$ hours on the line plot.

Complete the line plot to show the number of days Aisha read for 2 hours.

Point to the line plot.

These are X tiles to use to complete the line plot. Not all the X tiles need to be used.

Point to the X tiles.

Allow time for the student to respond.

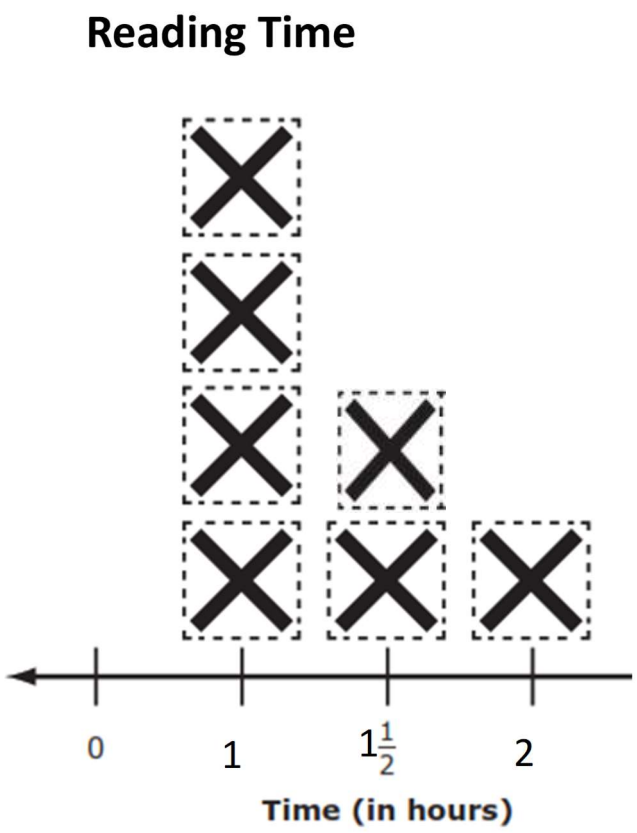
Rubric

***Test administrator:** After student completes work, record on the computer if the student provided the correct answer or the student did not provide the correct answer.*

Score	Description
1	Student correctly places 1 X tile above 2 hours on the line plot.
0	Student does not correctly place 1 X tile above 2 hours on the line plot.

Item 23, continued

Sample Response



Calculator may be used on this item.

Item 24

This item is about equivalent fractions.

Two fractions are equivalent when the fraction bars are each shaded the same amount.

This fraction bar shows $\frac{4}{5}$ *[Graphic description: "four-fifths"]* because four parts out of five are shaded.

Point to the fraction bar.

[For students with visual impairment, read "This is a fraction bar divided into five equal parts. Four parts out of five are shaded. It is labeled four-fifths."]

This fraction bar shows $\frac{8}{10}$ *[Graphic description: "eight-tenths"]* because eight parts out of ten are shaded.

Point to fraction bar.

[For students with visual impairment, read "This is a fraction bar divided into ten equal parts. Eight parts out of ten are shaded. It is labeled eight-tenths."]

The fractions $\frac{4}{5}$ *[Graphic description: "four-fifths"]* and $\frac{8}{10}$ *[Graphic description: "eight-tenths"]* are equivalent, because the fraction bars are each shaded the same amount.

Point to the fraction bars for four-fifths and eight-tenths.

Item 24, continued

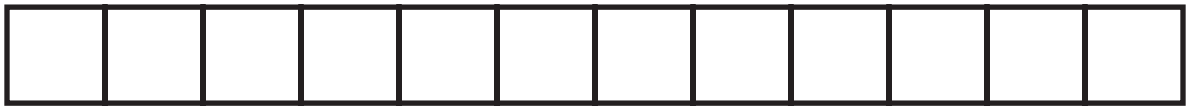
This fraction bar shows $\frac{5}{6}$ *[Graphic description: "five-sixths"]* because five parts out of six are shaded.

[For students with visual impairment, read "This is a fraction bar divided into six equal parts. Five parts are shaded. It is labeled five-sixths."]

This fraction bar may be used to help answer the question.

Point to the fraction bar.

[For students with visual impairment, read "This is a fraction bar divided into twelve equal parts."]



Which fraction is equivalent to $\frac{5}{6}$ *[Graphic description: "five-sixths"]*?

Point to each option as the TTS or TA reads each graphic description.

[Graphic description: "A. five-twelfths"]

A. $\frac{5}{12}$

[Graphic description: "B. ten-twelfths"]

B. $\frac{10}{12}$

[Graphic description: "C. eleven-twelfths"]

C. $\frac{11}{12}$

Calculator may be used on this item.

Provide student with Incomplete Chart 2, "Shapes with At Least One Obtuse Angle" and printed shapes from the Grade 4 Mathematics Practice Test Reference Materials.

Item 25

This item is about classifying shapes.

These are shapes.

Place the shapes on the work surface from left to right in front of the student. Point to each shape without naming the shape.

Item 25, continued

This is a chart.

Place the incomplete chart onto the work surface in front of the student. Point to each side of the chart as the TTS or TA describes the chart.

Shapes with At Least One Obtuse Angle	Shapes with No Obtuse Angles

The left side is labeled “Shapes with At Least One Obtuse Angle.” Place the shapes that have at least one obtuse angle on this side of the chart. The right side is labeled “Shapes with No Obtuse Angles.” Place the shapes that do not have any obtuse angles on this side of the chart.

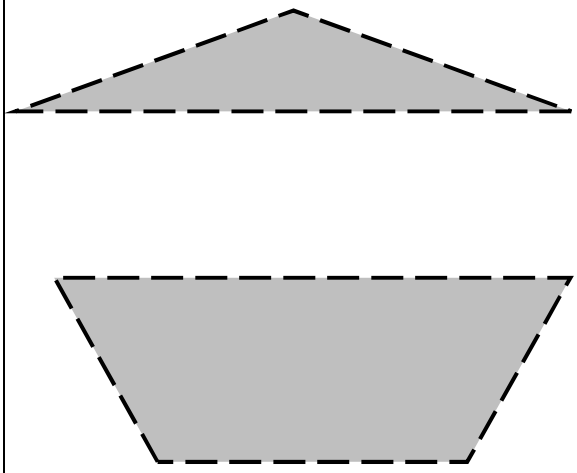
Allow time for the student to respond.

Rubric

Test administrator: *After student completes work, record on the computer if the student provided the correct answer or the student did not provide the correct answer.*

Score	Description
1	Student correctly sorts 3 out of 3 shapes.
0	Student does not correctly sort 3 out of 3 shapes.

Sample Response

Shapes with At Least One Obtuse Angle	Shapes with No Obtuse Angles
	

Calculator may be used on this item.

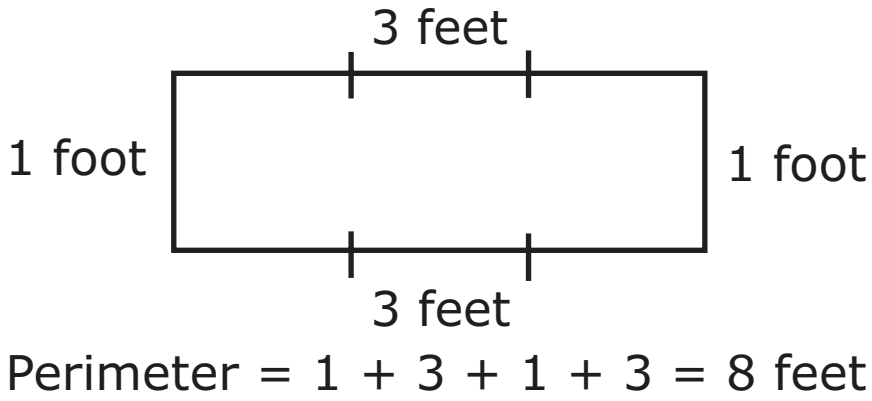
Item 26

This item is about perimeter of rectangles.

The perimeter is the distance around a shape.

This is a rectangle.

> *Point to the rectangle. Point to each dimension as the TTS or TA reads each graphic description.*
>
> *[Graphic description: "Perimeter equals one plus three plus one plus three equals eight feet."]*

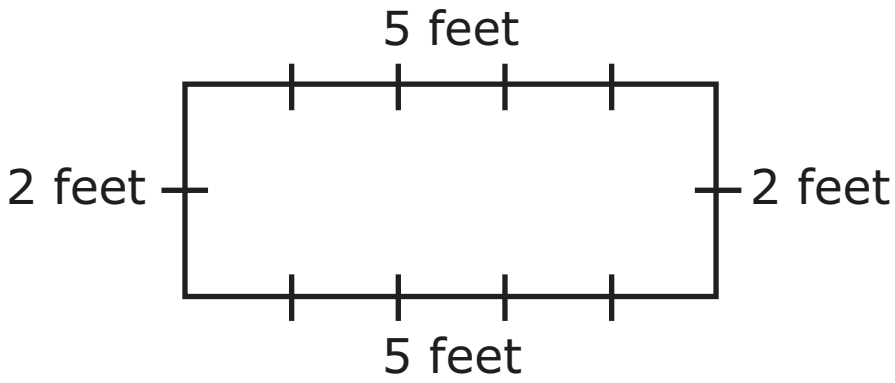


The perimeter of the rectangle is 8 feet.

Item 26, continued

This is a picture of a garden. One side of the garden is 2 feet and the other side is 5 feet.

Point to each dimension as the TTS or TA reads the dimensions to the student.



What is the perimeter of the rectangular garden?

Point to each option as the TTS or TA reads each option.

A. 7 feet

B. 12 feet

C. 14 feet

Calculator may be used on this item.

Provide student with Diagram 3 of Flowers from the Grade 4 Mathematics Practice Test Reference Materials.

Item 27

This item is about solving word problems.

This is a picture of the 8 flowers Bob planted.

Point to the flowers.

Jerry planted 3 times as many flowers as Bob.

How many flowers did Jerry plant?

Point to each option as the TTS or TA reads each option.

A. 11 flowers

B. 24 flowers

C. 38 flowers

Calculator may be used on this item.

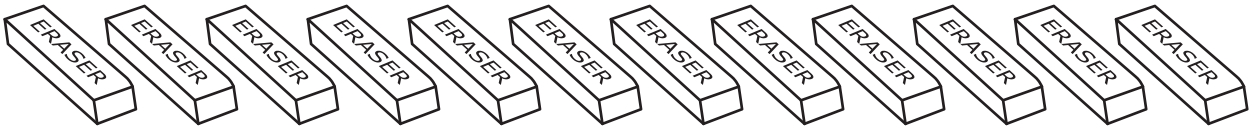
Provide student with at least 12 counters or other manipulatives to use if needed.

Item 28

This item is about dividing objects into equal groups.

Charlie had 12 erasers.

Point to the erasers.



Charlie put the erasers into 2 equal groups.

How many erasers did Charlie put into each group?

Point to each option as the TTS or TA reads each option.

A. 2 erasers

B. 6 erasers

C. 10 erasers

Calculator may be used on this item.

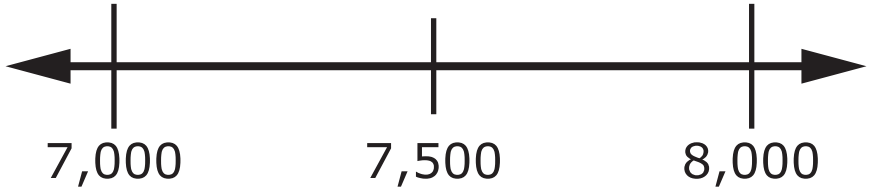
Item 29

This item is about using place value to round numbers.

This number line may be used to help answer the question.

Point to the number line.

[For students with visual impairment, read "This is a number line beginning at the number seven thousand on the left, followed by two equally spaced marks, ending on the right at eight thousand. The first mark after seven thousand is labeled seven thousand five hundred."]



What is 7,389 rounded to the nearest thousand?

Point to each answer option as the TTS or TA reads each option.

A. 7,000

B. 7,500

C. 8,000

Calculator may be used on this item.

Item 30

This item is about equivalent fractions.

The two fractions shown are equivalent when the fraction bars are each shaded the same amount.

This fraction bar shows *[Graphic description: "six-tenths"]* $\frac{6}{10}$.

Point to the fraction bar.

[For students with visual impairment, read " This is a fraction bar divided into ten equal parts. Six parts are shaded. It is labeled six-tenths."]

This fraction bar may be used to help answer the question.

Point to the fraction bar.

[For students with visual impairment, read "This is a fraction bar divided into five equal parts."]

Which fraction is equivalent to $\frac{6}{10}$ *[Graphic description: "six-tenths"]*?

Point to each option as the TTS or TA reads each graphic description.

[For students with visual impairment, read "A. This is a fraction bar divided into five equal parts. One part is shaded. It is labeled one-fifth."]

A. 

Item 30, continued

[For students with visual impairment, read "B. This is a fraction bar divided into five equal parts. Two parts are shaded. It is labeled two-fifths."]

B. 

[For students with visual impairment, read "C. This is a fraction bar divided into five equal parts. Three parts are shaded. It is labeled three-fifths."]

C. 

Calculator may be used on this item.

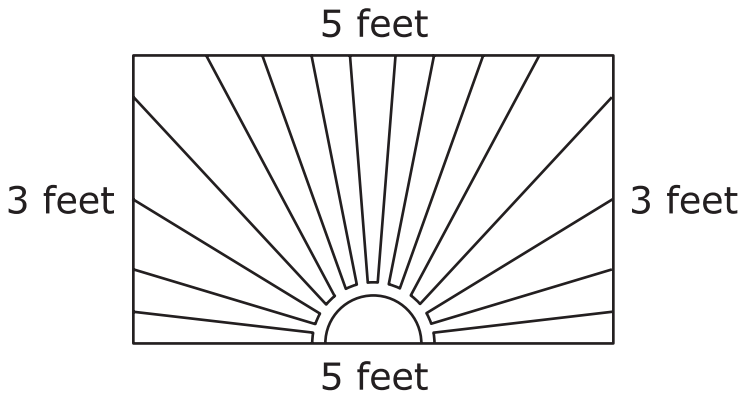
Item 31

This item is about the perimeter of rectangles.

The perimeter is the distance around a shape.

Judy has two flags. Her first flag has a width of 3 feet and a length of 5 feet.

> *Point to the flag. Point to each dimension as the TTS or TA reads the graphic description.*
>
> *[Graphic description: "Perimeter equals three plus five plus three plus five equals sixteen feet."]*



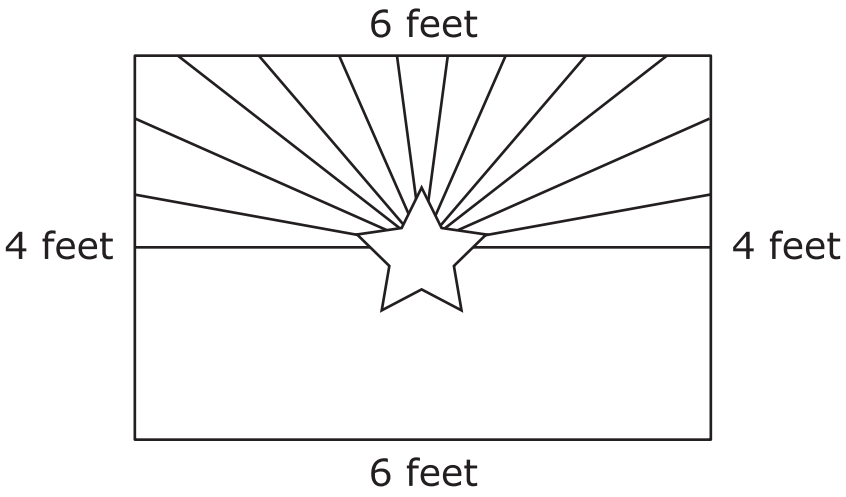
Perimeter = 3 + 5 + 3 + 5 = 16 feet

The perimeter of Judy's first flag is 16 feet.

Item 31, continued

Judy's second flag has a width of 4 feet and a length of 6 feet.

Point to each dimension as the TTS or TA reads the dimensions.



What is the perimeter of Judy's second flag?

Point to each option as the TTS or TA reads each option.

A. 10 feet

B. 14 feet

C. 20 feet

Calculator may be used on this item.

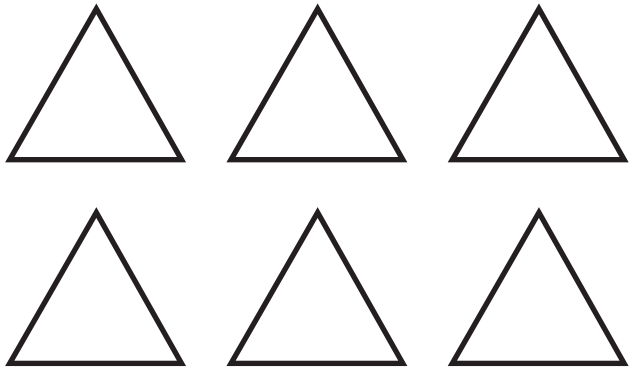
Item 32

This item is about solving word problems.

This array shows 2 rows of triangles. Each row has 3 triangles. There are 6 triangles in all.

Point to each row. Then point to "two times three equals three plus three" as the TTS or TA reads the graphic description.

[Graphic description: "Two times three equals three plus three."]



$$2 \times 3 = 3 + 3$$

This is another word problem.

Jack has a bookcase with 5 shelves. He put 3 books on each shelf.

How many books did Jack put in the bookcase?

Point to each option as the TTS or TA reads each option.

A. 15 books

B. 13 books

C. 8 books

Calculator may be used on this item.

Item 33

This item is about comparing fractions.

Fractions can be compared by using these symbols: equal to, less than, and greater than.

Point to each symbol as the TTS or TA reads each symbol's name.

$=$ $<$ $>$

These are two fraction bars. Each fraction bar is equal in size and shape.

Point to each fraction bar as the TTS or TA reads the graphic description.

[Graphic description: "This is a picture of two fraction bars. The first fraction bar is divided into five equal parts. Three parts are shaded. The fraction bar is labeled three-fifths. The second fraction bar is divided into eight equal parts. Three parts are shaded. The fraction bar is labeled three eighths."]

Which of the following correctly compares $\frac{3}{5}$ *[Graphic description: "three-fifths"]* and $\frac{3}{8}$ *[Graphic description "three-eighths"]*?

Point to each option as the TTS or TA reads each graphic description.

[Graphic description: "A. three-fifths equals three-eighths"]

A. $\frac{3}{5} = \frac{3}{8}$

Item 33, continued

[Graphic description: “B. three-fifths is less than three-eighths”]

B. $\frac{3}{5} < \frac{3}{8}$

[Graphic description: “C. three-fifths is greater than three-eighths”]

C. $\frac{3}{5} > \frac{3}{8}$

Calculator may be used on this item.

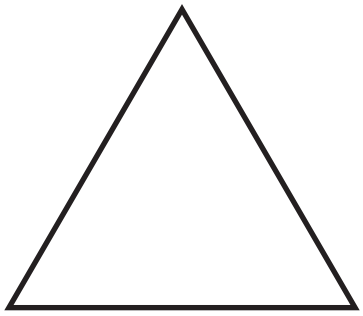
Provide student with Incomplete Chart 3, "4 Sides" and shapes from the Grade 4 Mathematics Practice Test Reference Materials.

Item 34

This item is about sorting shapes.

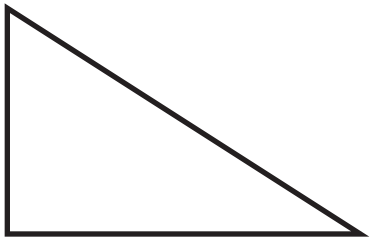
This is a triangle. It has 3 sides.

Point to the triangle.



This is another triangle. This triangle has the same number of sides as the first triangle.

Point to the triangle.



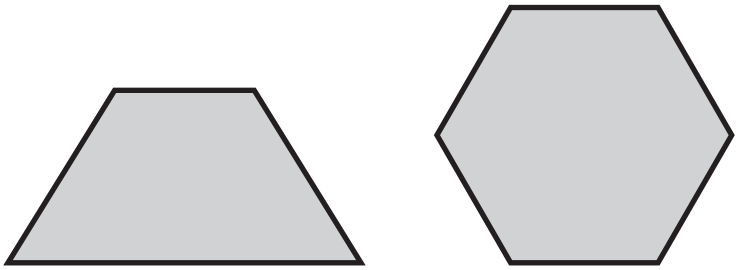
This is a rectangle. It has 4 sides.

Point to the rectangle.

Item 34, continued

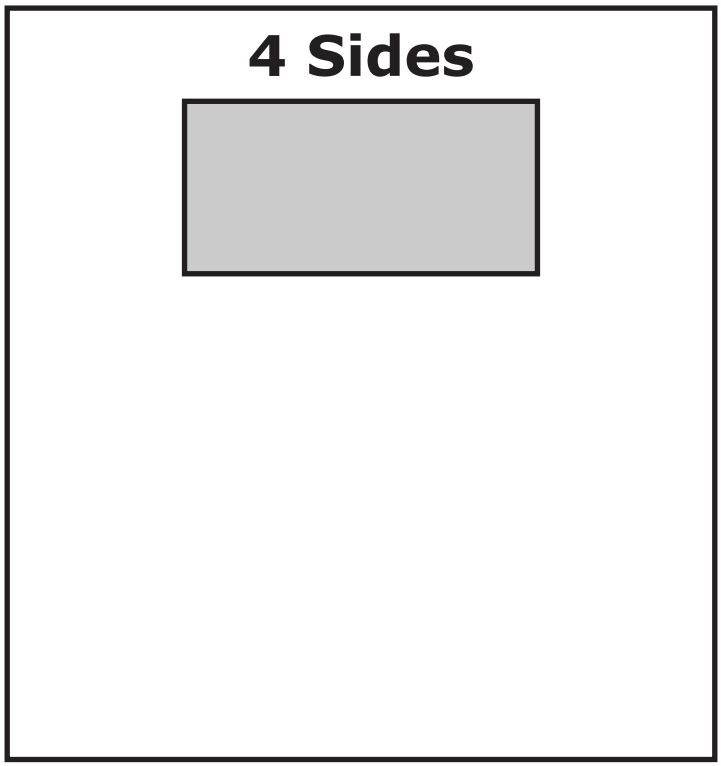
These are some shapes.

Place each shape onto the work surface in a line from left to right in front of the student. Point to each shape without naming the shapes.



This is a chart that shows a rectangle with 4 sides.

Place the chart onto the work surface in front of the student.



Place the shape that has 4 sides onto the chart.

Allow time for the student to respond.

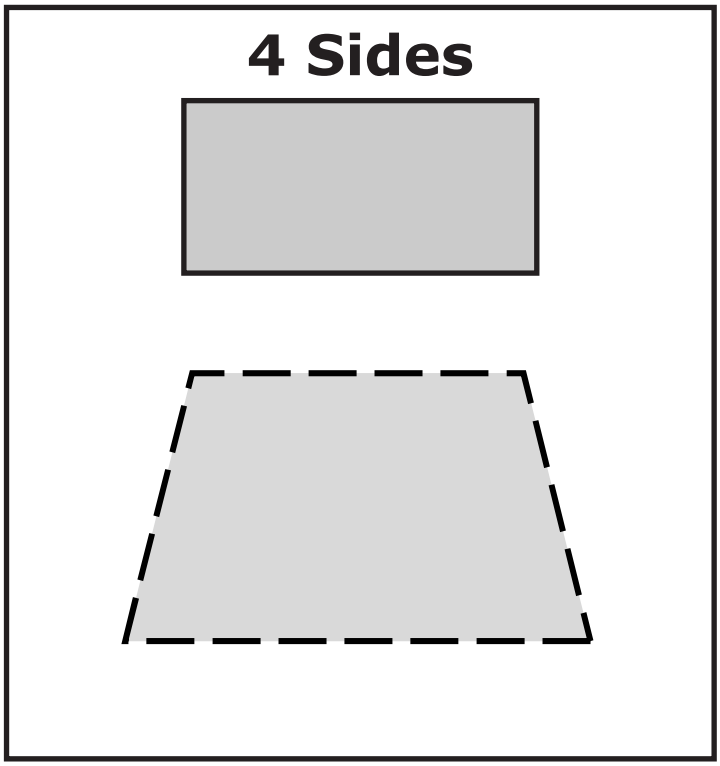
Item 34, continued

Rubric

Test administrator: *After student completes work, record on the computer if the student provided the correct answer or the student did not provide the correct answer.*

Score	Description
1	Student correctly places only the shape with 4 sides in the chart.
0	Student does not place the shape with 4 sides in the chart. OR Student places both shapes in the chart.

Sample Response



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Practice Test