

LEAP CONNECT

Directions for Practice Test Administration

Mathematics
Grade 6

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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 6 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.

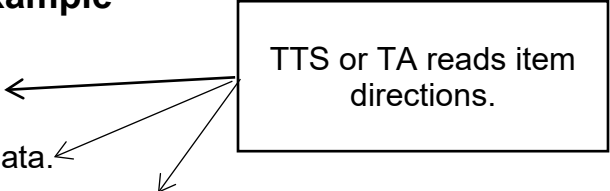
Mathematics Item Example

This item is about finding the mean of a set of data.

The mean is the average of the numbers in a set of data.

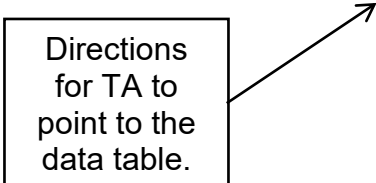
This data table shows the number of algebra problems Chris did for homework each of 4 days last week.

TTS or TA reads item directions.



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

Directions for TA to point to the data table.



[Graphic description: "This is a data table titled 'Number of Algebra Problems.' It shows the numbers of problems Chris completed for each day of homework. Five problems were completed on Monday, four problems were completed on Tuesday, five problems were completed on Wednesday, and six problems were completed on Thursday."]

Number of Algebra Problems

Day	Number of Problems
Monday	5
Tuesday	4
Wednesday	5
Thursday	6

TTS or TA reads graphic description.

To find the mean, add all of the values in the list and divide the sum by the number of values.

To find the mean number of problems, first add all of the values.

TTS or TA reads item text.

Point to the equation as the TTS or TA reads the graphic description.

[Graphic description: "Five plus four plus five plus six equals twenty."]

$$5 + 4 + 5 + 6 = 20$$

Directions for TA to point to the equation.

Then divide the sum by the number of values. There are 4 values, so divide 20 by 4.

Point to the equation as the TTS or TA reads the graphic description.

[Graphic description: "Twenty divided by four equals five."]

$$20 \div 4 = 5$$

Directions for TA to point to the equation.

The mean number of problems is 5.

This is another data table.

Directions for TA to point to the data table.

This data table shows the number of magazine articles Jan read 4 days last week.

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

[Graphic description: "This is a data table titled 'Number of Magazine Articles.' It shows the numbers of articles Jan read for four days last week. Four articles were read on Monday, two articles were read on Tuesday, four articles were read on Wednesday, and six articles were read on Thursday."]

Number of Magazine Articles

Day	Number of Articles
Monday	4
Tuesday	2
Wednesday	4
Thursday	6

TTS or TA reads question text.

What is the mean number of articles Jan read each day last week?

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

- A. 4 articles
- B. 6 articles
- C. 16 articles

TTS or TA reads each answer option.

Directions for TA to point to each answer option.

Session 1

Calculator may be used on this item.

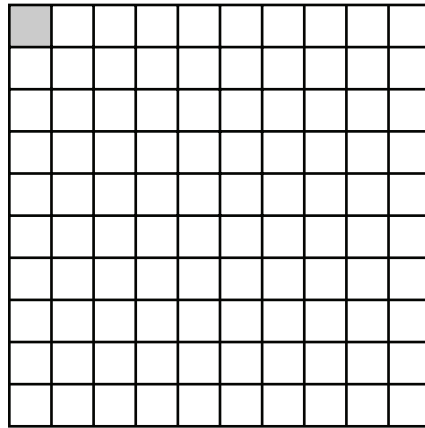
Item 1

This item is about percents.

The word percent means out of one hundred.

This is a grid with 100 squares.

Point to the grid.



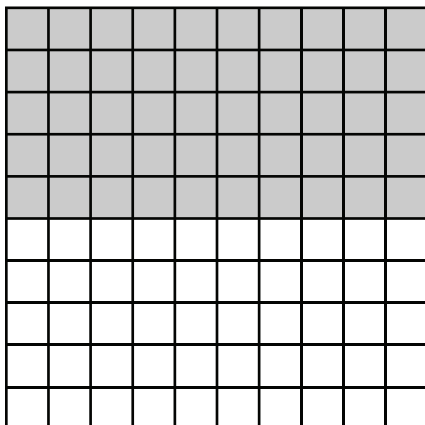
This grid shows 1% of the squares are shaded because 1 square is shaded.

Which picture shows 5% of the squares are shaded?

Point to each option.

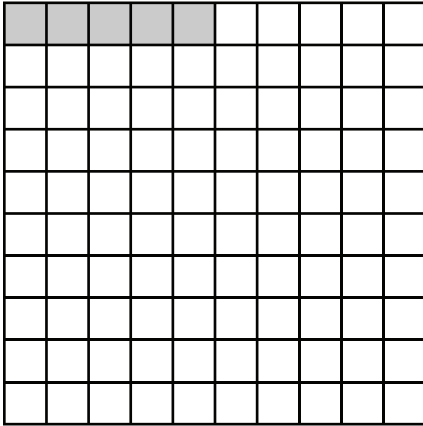
[For students with visual impairment, read “A. This is a grid with one hundred squares. Fifty squares are shaded.”]

A.



Item 1, continued

[For students with visual impairment, read “B. This is a grid with one hundred squares. Five squares are shaded.”]



B.

Calculator may be used on this item.

Item 2

This item is about numbers that are greater than or less than zero.

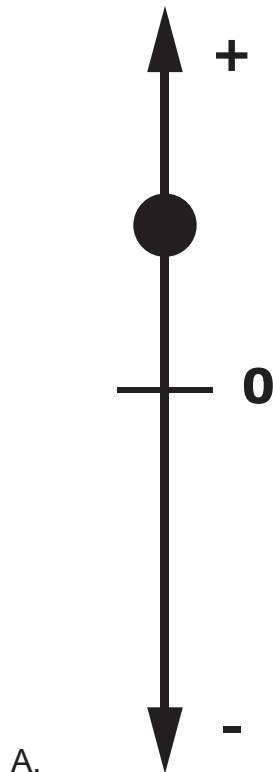
A shop owner paid for a shipment of flowers. The shipment cost more money than she had in the bank.

The balance in the shop owner's bank account was less than zero dollars.

Which number line shows the shop owner's bank balance?

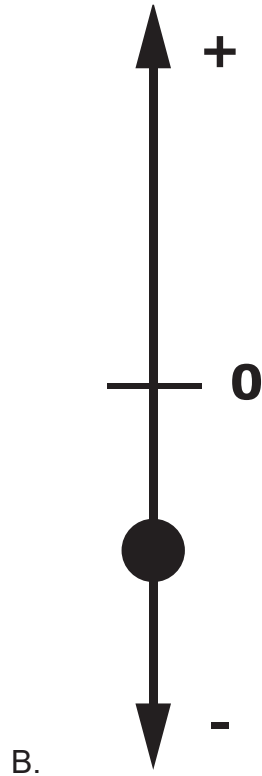
Point to each option.

[For students with visual impairment, read "A. This is a vertical number line. There is a positive symbol at the top of the number line. There is a zero at the center of the number line. There is a negative symbol at the bottom of the number line. There is a point between zero and the positive symbol on the number line."]



Item 2, continued

[For students with visual impairment, read “B. This is a vertical number line. There is a positive symbol at the top of the number line. There is a zero at the center of the number line. There is a negative symbol at the bottom of the number line. There is a point between zero and the negative symbol on the number line.”]



Calculator may be used on this item.

Provide student with Equation 1 from the Grade 6 Mathematics Practice Test Reference Materials.

Item 3

This item is about how to read a word problem.

Alex had 3 leaves. Then, her sister gave Alex 1 more leaf.

This is an equation that can be used to find how many leaves Alex has now.

Point to the equation as the TTS or TA reads the graphic description.

[Graphic description: "Three leaves plus one leaf equals n ."]

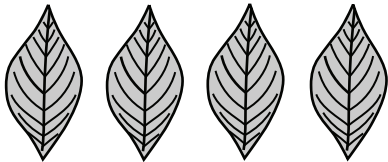
$$\begin{array}{ccccccc} \img alt="Three leaves" data-bbox="322 396 500 475" & + & \img alt="One leaf" data-bbox="550 396 605 475" & = & \mathbf{n} \\ & & & & \\ & & \mathbf{3} & + & \mathbf{1} & = & \mathbf{n} \end{array}$$

A letter can stand for the missing value in an equation. The letter **n** in this equation stands for the total number of leaves Alex has now.

Point to the n in the equation.

What does the letter **n** stand for?

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



- A. the total number of leaves Alex has now

Item 3, continued



B. the 1 leaf Alex received

Calculator may be used on this item.

Item 4

This item is about parts and wholes.

This is a fraction bar divided into 2 equal parts.

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

[Graphic description: “one whole”]



Each part is one-half of the fraction bar. Two-halves of the fraction bar are shaded.

Point to the shaded parts of the fraction bar.

This is a fraction bar divided into 2 equal parts.

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

[Graphic description: “one-half”]



Each part is one-half of the fraction bar. One-half of the fraction bar is shaded.

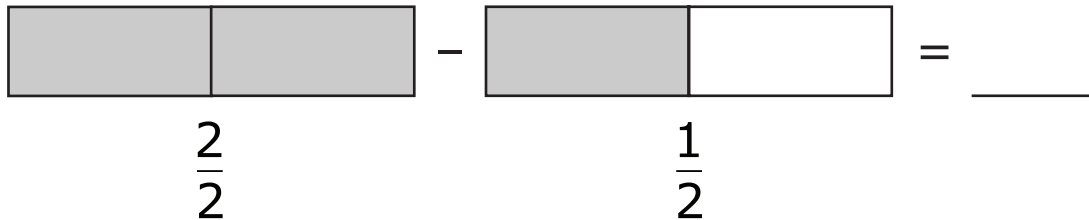
Point to the shaded part of the fraction bar.

Item 4, continued

This is a subtraction problem.

Point to the subtraction problem as the TTS or TA reads the graphic description.

[Graphic description: “This is a picture of two fraction bars, each divided into two equal parts. The first fraction bar has both parts shaded. The second fraction bar has one part shaded. There is a subtraction symbol in between the fraction bars and an equal symbol after the second fraction bar.”]



Which picture shows how much *[Graphic description: “one whole”]* $\frac{2}{2}$ minus *[Graphic description: “one-half”]* $\frac{1}{2}$ is?

Point to each option.

[For students with visual impairment, read “A. This is a picture of a fraction bar divided into two equal parts, with one part shaded.”]



[For students with visual impairment, read “B. This is a picture of a fraction bar divided into two equal parts, with two parts shaded.”]

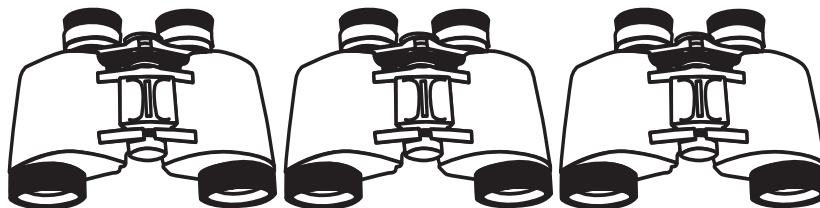
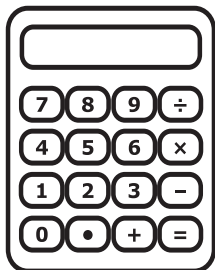


Calculator may be used on this item.

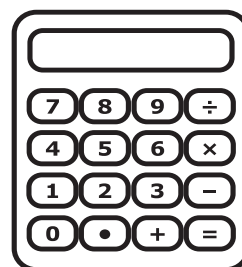
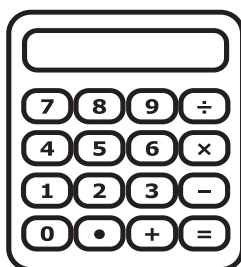
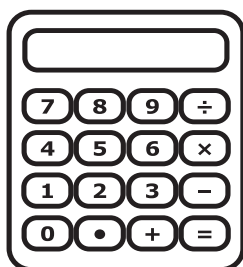
Item 5

This item is about solving a problem using a ratio.

The students in Ms. Gomez's class are studying birds. Ms. Gomez has 1 calculator and 3 binoculars for each group of students in her class.



Ms. Gomez has 3 calculators.



Point to the picture of three calculators.

How many binoculars will Ms. Gomez need for her 3 calculators?

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

- A. 3 binoculars
- B. 6 binoculars
- C. 9 binoculars

Calculator may be used on this item.

Provide student with at least 18 counters or other manipulatives to use if needed.

Item 6

This item is about using an equation to solve a word problem.

This is a word problem.

Ted planted 5 flowers in his garden. He needs to plant 9 flowers in his garden.

This equation can be used to find the number of flowers Ted still needs to plant.

Point to the equation as the TTS or TA reads the graphic description.

*[Graphic description: “five plus **f** equals nine.”]*

$$5 + \mathbf{f} = 9$$

The letter **f** stands for the number of flowers Ted still needs to plant in his garden.

This equation is used to solve for **f**.

*Point to the **f** in the equation.*

Because $5 + 4 = 9$, **f** equals 4. Ted needs to plant 4 flowers.

This is another word problem.

Jean received 6 books from an online store. She ordered a total of 10 books.

This equation can be used to find how many more books Jean should receive to complete her order.

Point to the equation as the TTS or TA reads the graphic description.

*[Graphic description: “six plus **b** equals ten.”]*

$$6 + \mathbf{b} = 10$$

Item 6, continued

The letter **b** stands for the number of books Jean should receive to complete her order.

How many books does Jean need to receive to complete her order?

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

- A. 16 books
- B. 6 books
- C. 4 books

Calculator may be used on this item.

Item 7

This item is about finding the mean of a set of data.

The mean of a set of data is the average.

This is a set of data.

Point to the list of numbers as the TTS or TA reads the graphic description.

[Graphic description: "The data are four, five, seven, eight."]

4, 5, 7, 8

To find the mean, first add the numbers together.

Point to the equation as the TTS or TA reads the graphic description.

[Graphic description: "Four plus five plus seven plus eight equals twenty-four."]

$$4 + 5 + 7 + 8 = 24$$

The numbers in this data set add up to 24.

The next step is to divide the total by the number of pieces of data.

This data set has 4 pieces of data.

Count each number in the data set.

Item 7, continued

Which equation shows the next step to finding the mean of this set of data?

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

[Graphic description: "A. twenty-four divided by four equals six."]

A. $24 \div 4 = 6$

[Graphic description. "B. twenty-four minus four equals twenty."]

B. $24 - 4 = 20$

[Graphic description: "C. twenty-four plus four equals twenty-eight."]

C. $24 + 4 = 28$

Calculator may be used on this item.

Item 8

This item is about solving a word problem using a percent.

The word percent means out of one hundred.

A percent can be written as a fraction. Forty percent written as a fraction is 40 over 100.

Point to the equation as the TTS or TA reads the graphic description.

[Graphic description: "Forty percent equals forty over one hundred."]

$$40\% = \frac{40}{100}$$

Amanda must put away 100 library books. She has already put away 40 *[Graphic description: "percent"]* % of the books.

How many books has Amanda already put away?

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

- A. 30 books
- B. 60 books
- C. 70 books

Calculator may be used on this item.

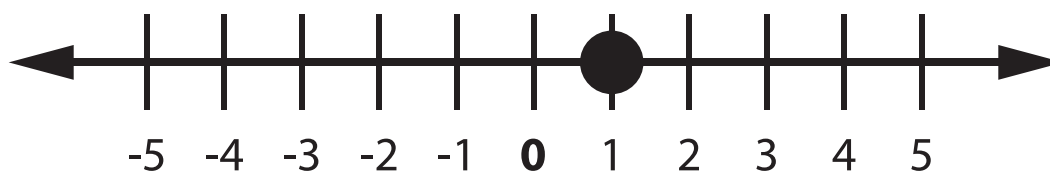
Item 9

This item is about locating positive and negative numbers on a number line.

This is a number line.

Trace the number line as the TTS or TA reads the graphic description.

[Graphic description: "This is a number line beginning at negative five on the left, followed by ten equally spaced marks, ending on the right at five. The first mark to the right of zero has a point that is labeled one."]



The numbers to the right of zero are positive numbers.

Point to the numbers to the right of zero, beginning at zero and moving to positive five.

The numbers to the left of 0 are negative numbers. The symbol in front of these numbers means they are negative.

Point to the numbers to the left of zero, beginning at zero and moving to negative five.

This is 1 on the number line.

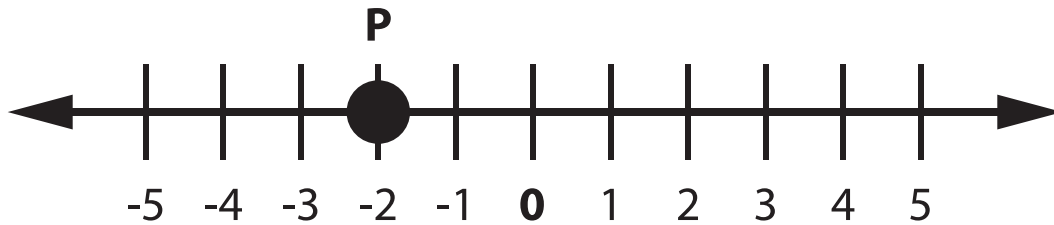
Point to one on the number line.

Item 9, continued

This is another number line.

Trace the number line as the TTS or TA reads the graphic description.

[Graphic description: "This is a number line beginning at negative five on the left, followed by ten equally spaced marks, ending on the right at five. There is a point on the line that is labeled P."]



What is the location of point **P** on the number line?

*Point to **P** on the number line.*

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

[Graphic description: "A. negative two"]

A. -2

[Graphic description: "B. two"]

B. 2

[Graphic description: "C. one"]

C. 1

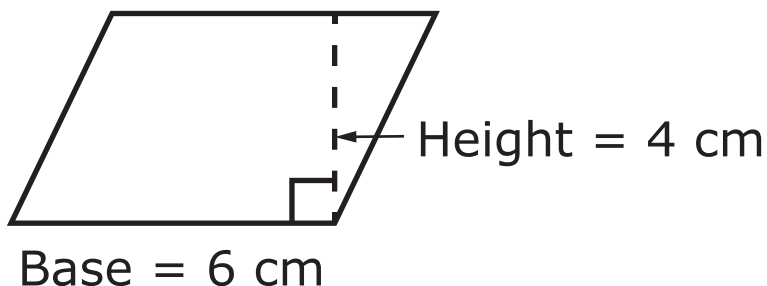
Calculator may be used on this item.

Item 10

This item is about finding the area of a parallelogram.

Point to the parallelogram as the TTS or TA reads the graphic description.

[Graphic description: "Area equals base times height."]



$$\text{Area} = \text{Base} \times \text{Height}$$

Use this formula to find the area of the parallelogram.

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

The base of the parallelogram is 6 centimeters.

Point to the base of the parallelogram.

The height of the parallelogram is 4 centimeters.

Point to the height of the parallelogram.

What is the area, in square centimeters, of this parallelogram?

Point to the parallelogram.

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

- A. 10 sq cm
- B. 20 sq cm
- C. 24 sq cm

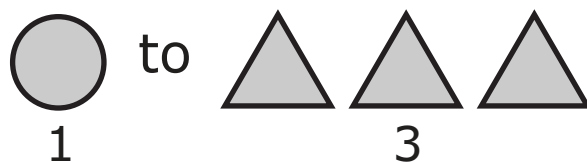
Calculator may be used on this item.

Item 11

This item is about a ratio.

A ratio tells how one quantity is related to another quantity. For example, this picture shows a ratio of 1 circle to 3 triangles.

Point to the picture.



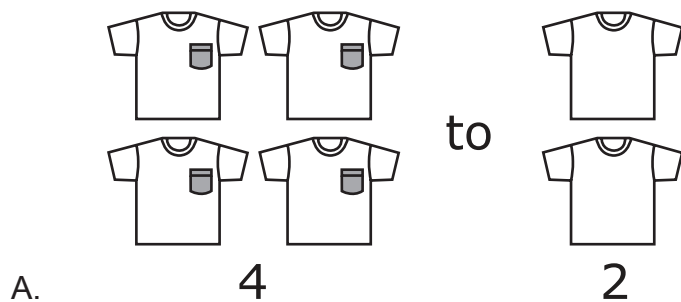
This is another ratio.

Justin owns a shirt store. He sells 3 shirts with pockets for every 5 plain shirts sold.

Which picture shows the ratio of shirts with pockets to plain shirts sold?

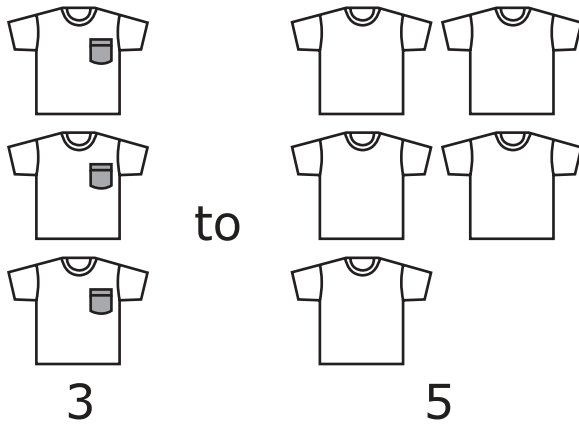
Point to each option as the TTS or TA reads each option.

[For students with visual impairment, read "A. four shirts with pockets to two plain shirts."]



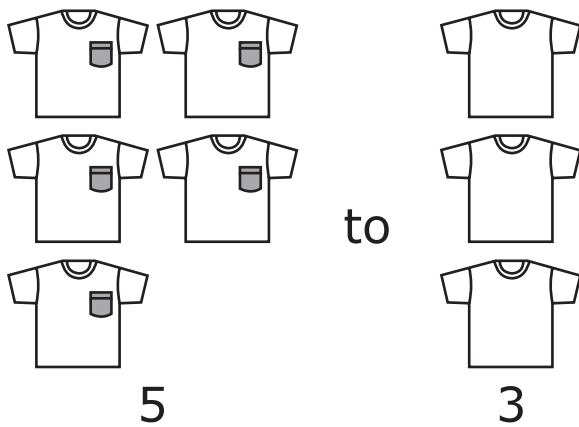
Item 11, continued

[For students with visual impairment, read “B. three shirts with pockets to five plain shirts.”]



B.

[For students with visual impairment, read “C. five shirts with pockets to three plain shirts.”]



c.

Calculator may be used on this item.

Provide student with Data Table 1, “Hours of Sleep” from the Grade 6 Mathematics Practice Test Reference Materials.

Item 12

This item is about finding the median of a set of data.

The median is the middle value in a set of data, when the numbers are in order from least to greatest.

This is an ordered list of data.

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

[Graphic description: “The data are two, four, five, eight, nine.”]

2, 4, 5, 8, 9

The median is 5 in this list of numbers.

Point to the five in the list of data.

Item 12, continued

This is another set of data.

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

[Graphic description: “This is a data table titled, ‘Hours of Sleep.’ It shows the names of five students and the number of hours each student slept the previous night. George slept eight hours. Erin slept nine hours. Jean slept eight hours. Pat slept seven hours. Beth slept ten hours.”]

Hours of Sleep

Name	Number of Hours
George	8
Erin	9
Jean	8
Pat	7
Beth	10

The numbers are **not** in order.

What is the median of this data set?

Point to the data table.

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

- A. 7
- B. 8
- C. 10

Calculator may be used on this item.

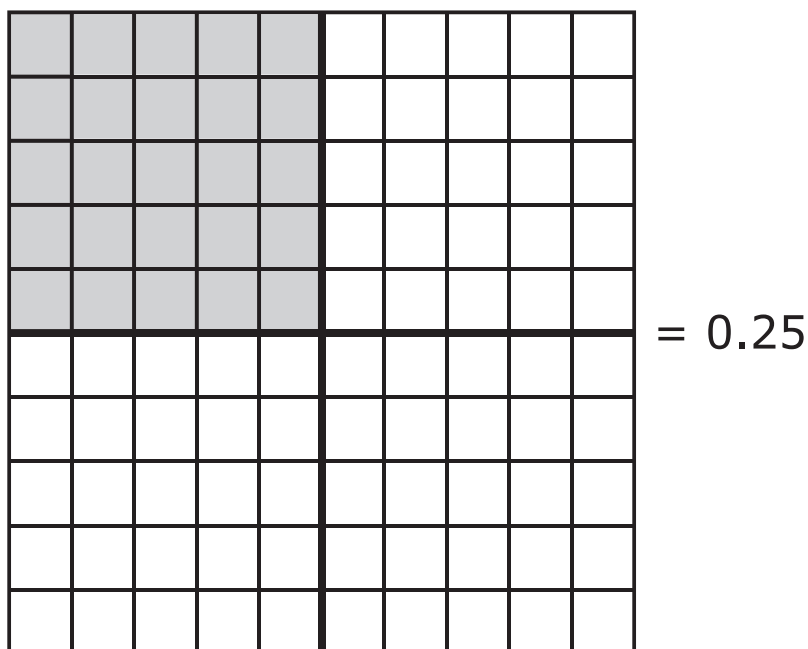
Item 13

This item is about adding decimal numbers.

This model shows twenty-five hundredths.

Point to the twenty-five hundredths model as the TTS or TA reads the graphic description.

[Graphic description: "This is a picture of a grid divided into one hundred squares. Twenty-five squares are shaded. It is labeled twenty-five hundredths."]

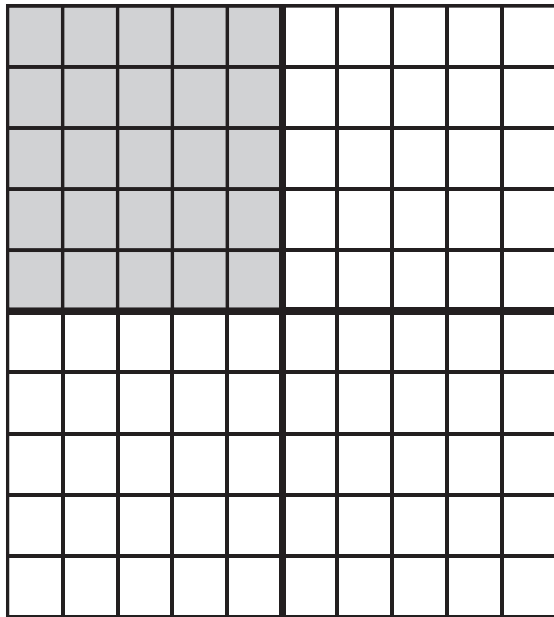


Item 13, continued

This is an addition problem.

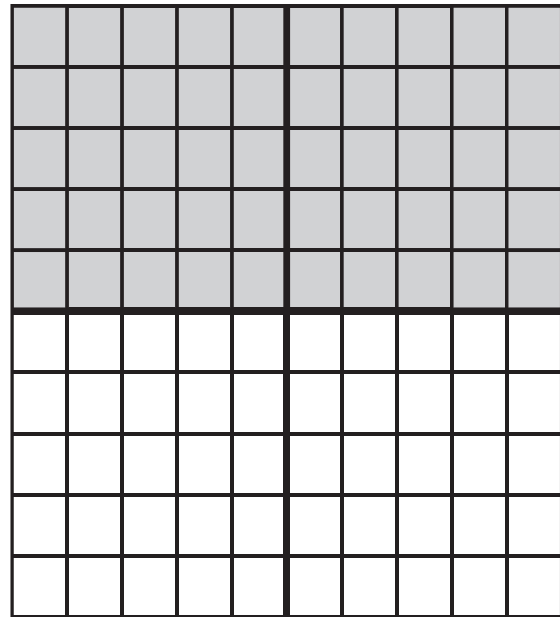
Point to the addition model as the TTS or TA reads the graphic description.

[Graphic description: “This is a picture of two grids each divided into one hundred squares. The first grid has twenty-five squares shaded. The second grid has fifty squares shaded. The addition problem reads twenty-five hundredths plus fifty hundredths.”]



0.25

+



0.50

Add these two numbers together.

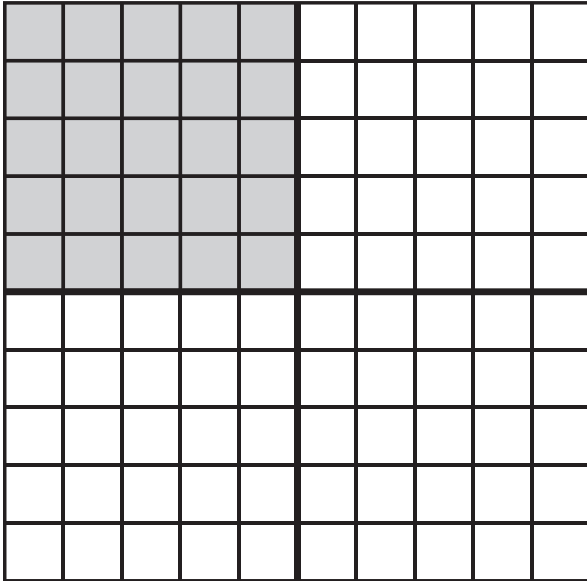
Point to the numbers in the addition model.

Item 13, continued

What is the answer to this problem?

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

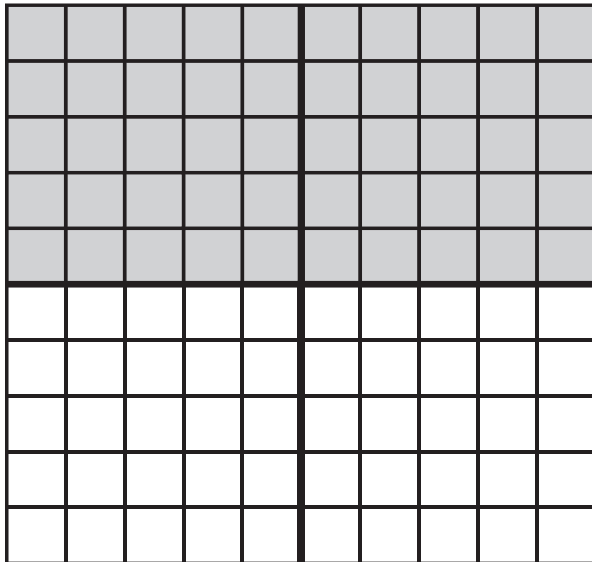
[Graphic description: "A. This is a picture of a grid divided into one hundred squares. Twenty-five squares are shaded. It is labeled twenty-five hundredths."]



A. 0.25

Item 13, continued

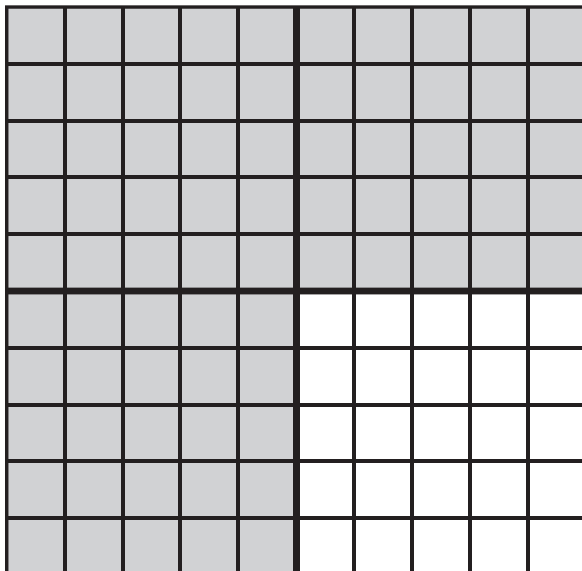
[Graphic description: "B. This is a picture of a grid divided into one hundred squares. Fifty squares are shaded. It is labeled fifty hundredths."]



0.50

B.

[Graphic description: "C. This is a picture of a grid divided into one hundred squares. Seventy-five squares are shaded. It is labeled seventy-five hundredths."]



0.75

C.

Calculator may be used on this item.

Provide student with up to 35 counters or other manipulatives to use, if needed.

Item 14

This item is about solving a word problem.

Mr. Waters has 28 students in his physical education class. He divided the students into 7 equal groups.

Which equation shows how many students Mr. Waters put into each group?

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

[Graphic description: "A. twenty-eight divided by seven equals four."]

A. $28 \div 7 = 4$

[Graphic description: "B. twenty-eight minus seven equals twenty-one."]

B. $28 - 7 = 21$

[Graphic description: "C. twenty-eight plus seven equals thirty-five."]

C. $28 + 7 = 35$

Calculator may be used on this item.

Item 15

This item is about solving a problem using a ratio.

A company makes blankets. For every 1 yellow blanket they make, they make 4 blue blankets. This is a ratio of 1 to 4.

Point to the ratio as the TTS or TA reads the graphic description.

[Graphic description: “one to four”]

1:4

How many yellow blankets are made when 24 blue blankets are made?

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

- A. 4 yellow blankets
- B. 5 yellow blankets
- C. 6 yellow blankets

Calculator may be used on this item.

Provide student with Formula 1 for area of a rectangle from the Grade 6 Mathematics Practice Test Reference Materials.

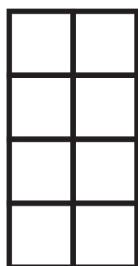
Item 16

This item is about finding the area of a rectangle.

This is Rectangle A.

Point to Rectangle A.

Length = 2 units



Width = 4 units

Rectangle A

The area of a rectangle is the amount of space inside it.

Point to the inside of Rectangle A to indicate the area.

This formula can be used to find the area of a rectangle.

Point to the formula as the TTS or TA reads the graphic description.

[Graphic description: "Area equals length times width."]

$$\text{Area} = \text{Length} \times \text{Width}$$

Rectangle A's length is 2 units.

Point to the base of Rectangle A and count the squares.

Rectangle A's width is 4 units.

Point to the height of Rectangle A and count the squares.

Item 16, continued

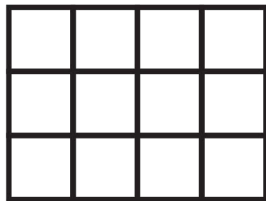
The area of Rectangle A is [Graphic description: “two times four”] 2×4 , which is 8 square units.

This is Rectangle B.

Point to Rectangle B.

[For students with visual impairment, read “The length of Rectangle B is four units. The width of Rectangle B is three units.”]

Length = 4 units



Width = 3 units

Rectangle B

Find the area of Rectangle B.

Point to the inside of Rectangle B to indicate the area.

Remember, area is found by multiplying length times width.

Point to the formula as the TTS or TA reads the graphic description.

[Graphic description: “Area equals length times width. Area equals blank times blank.”]

$$\text{Area} = \text{Length} \times \text{Width}$$

$$\text{Area} = \underline{\hspace{2cm}} \times \underline{\hspace{2cm}}$$

Item 16, continued

What is the area, in square units, of Rectangle B?

Point to Rectangle B.

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

- A. 7 square units
- B. 12 square units
- C. 14 square units

Calculator may be used on this item.

Provide student with Celsius thermometer 1 from the Grade 6 Mathematics Practice Test Reference Materials.

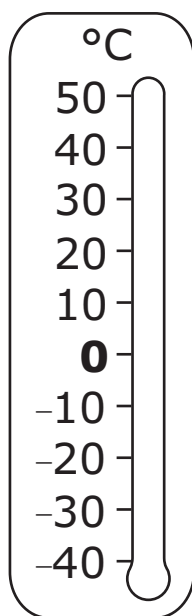
Item 17

This item is about positive and negative numbers.

This is a picture of a Celsius thermometer.

Point to the picture.

[For students with visual impairment, read “This is a picture of a Celsius thermometer. There are five equally spaced marks moving upwards from zero increasing by ten degrees. There are four equally spaced marks moving downwards from zero decreasing by ten degrees.”]



On this thermometer, 0°C shows the temperature at which water freezes into ice.

Point to zero degrees on the thermometer.

The numbers above 0°C are positive.

Point to the part of the thermometer above zero degrees.

Item 17, continued

The numbers below 0°C are negative.

Point to the part of the thermometer below zero degrees.

Which of these temperatures is **coldest**?

Point to the location of each option on the picture of the thermometer as the TTS or TA reads each graphic description.

[Graphic description: "A. ten degrees Celsius"]

A. 10°C

[Graphic description: "B. zero degrees Celsius"]

B. 0°C

[Graphic description: "C. negative twenty degrees Celsius"]

C. -20°C

Calculator may be used on this item.

Provide student with at least 15 counters or other manipulatives to use if needed.

Item 18

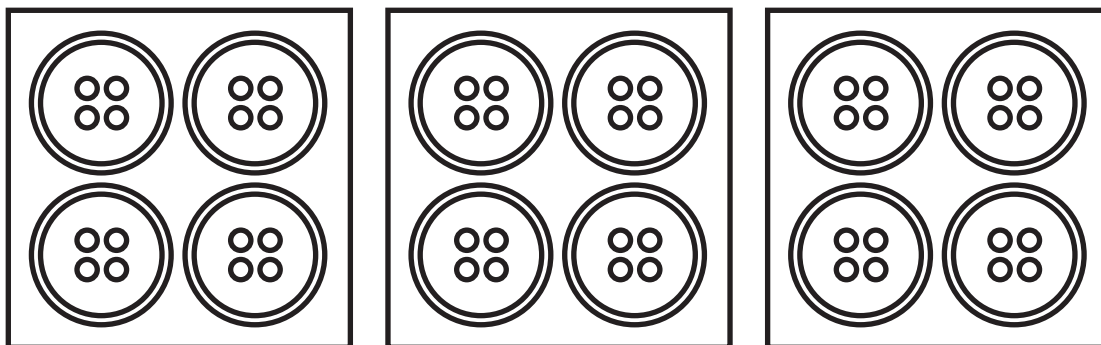
This item is about solving a word problem.

A group of objects can be divided into smaller equal groups.

For example, 12 buttons can be divided into 3 equal groups.

Point to the picture.

[For students with visual impairment, read “This is a picture of three groups of buttons. Each group has four buttons.”]



This is a word problem.

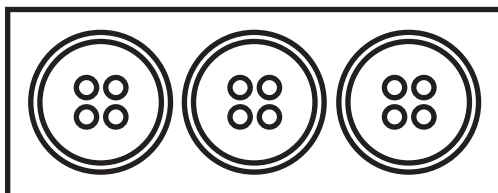
Gabrielle has 15 buttons to give away. She split them equally among her 5 friends.

Which picture shows how many buttons Gabrielle gave each of her friends?

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

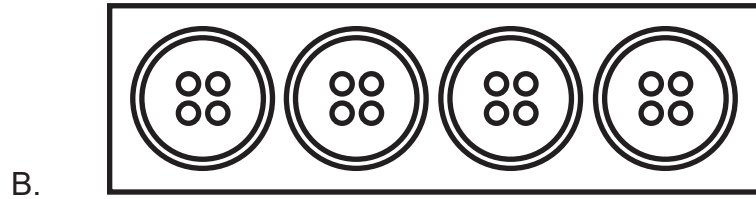
[Graphic description: “A. three buttons”]

A.

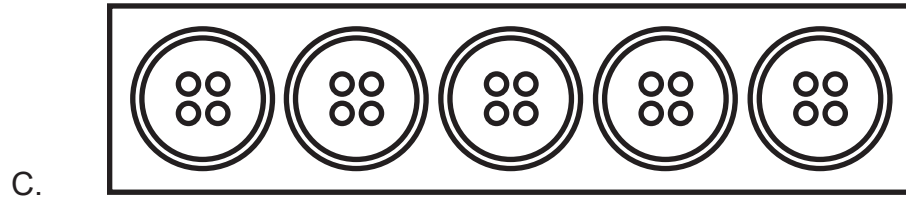


Item 18, continued

[Graphic description: "B. four buttons"]



[Graphic description: "C. five buttons"]



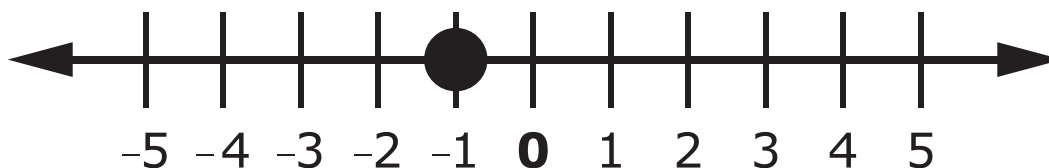
Calculator may be used on this item.

Item 19

This item is about locating positive and negative numbers on a number line.

Trace the number line as the TTS or TA reads the graphic description.

[Graphic description: "This is a number line beginning at negative five on the left, followed by ten equally spaced marks, ending on the right at five. The first mark to the left of zero has a point that is labeled negative one."]



The numbers to the right of 0 are positive numbers.

Point to the numbers to the right of zero, beginning at zero and moving to positive five.

The numbers to the left of 0 are negative numbers.

Point to the numbers to the left of zero, beginning at zero and moving to negative five.

This is *[Graphic description: "negative one"]* -1 on the number line.

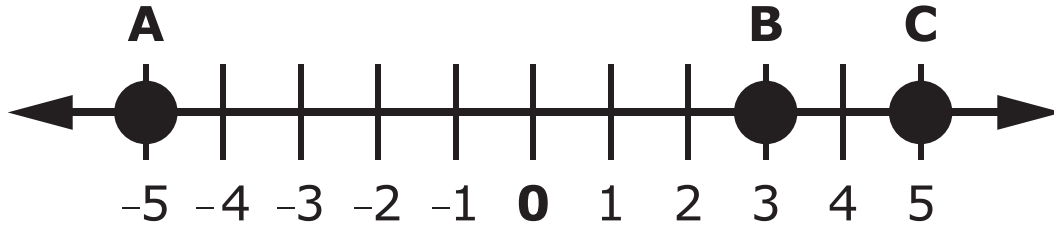
Point to negative one on the number line.

Item 19, continued

This is another number line. Each letter on this number line shows the location of a point on the line.

Trace the number line as the TTS or TA reads the graphic description.

[Graphic description: "This is a number line beginning at negative five on the left, followed by ten equally spaced marks, ending on the right at five. There are three points on the line. The points are labeled A, B, C."].



Which point shows the location of 3 on the number line?

Point to the location of each point on the number line as the TTS or TA reads each option.

- A. Point A
- B. Point B
- C. Point C

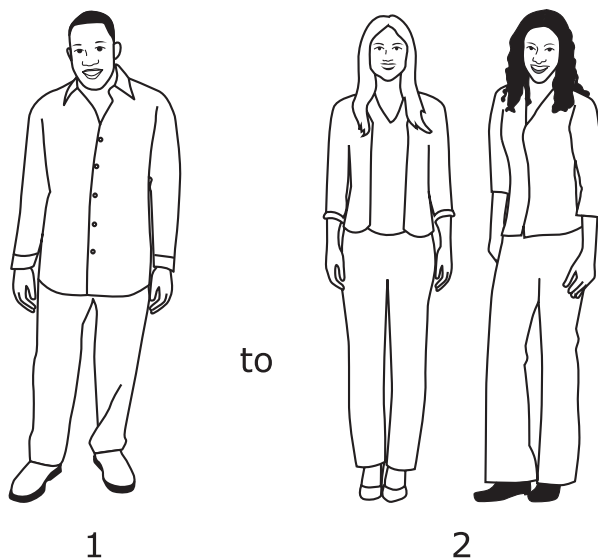
Calculator may be used on this item.

Item 20

This item is about a ratio.

A ratio tells how one quantity is related to another quantity. For example, there is 1 male teacher for every 2 female teachers at Jan’s school.

Point to the picture.



This is a ratio written with a word.

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

[Graphic description: “one to two”]

1 to 2

This is another ratio.

At Alice’s school, there are 2 male teachers for every 5 female teachers.

What is the ratio of male teachers to female teachers at Alice’s school?

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

A. 2 to 5

Item 20, continued

B. 2 to 2

C. 2 to 7

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

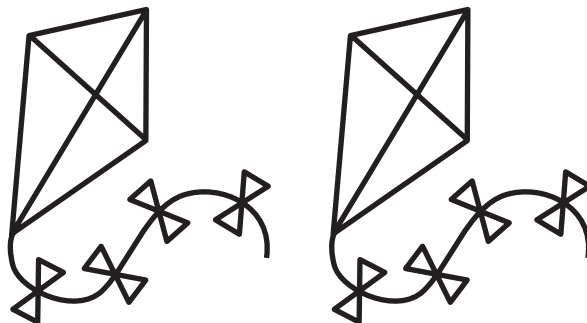
Calculator may be used on this item.

Item 21

This item is about solving a problem using a ratio.

Jenna likes to build and fly kites.

Point to the picture.



Jenna puts one tail on each kite.

How many tails did Jenna put on each kite?

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

[Graphic description: "A. two tails"]



[Graphic description: "B. one tail"]



Calculator may be used on this item.

Item 22

This item is about the area of a rectangle.

This is a rectangle.

Point to the rectangle.

[For students with visual impairment, read “The length of the rectangle is three units. The width of the rectangle is one unit.”]



The area of a rectangle is the amount of space inside it.

Point to the inside of the rectangle to indicate the area.

Count the number of squares inside this rectangle to find the area.

What is the area, in square units, of this rectangle?

Point to the rectangle.

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

- A. 1 square unit
- B. 3 square units

Calculator may be used on this item.

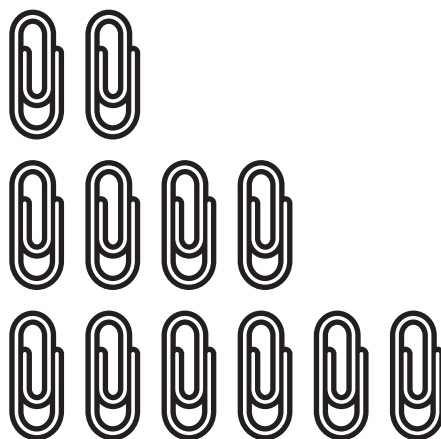
Item 23

This item is about finding the mean.

You can find the mean by making groups even.

This is a picture of 3 groups of paper clips.

Point to the picture.



This group has 2 paper clips.

Point to the group with two paper clips.

This group has 4 paper clips.

Point to the group with four paper clips.

This group has 6 paper clips.

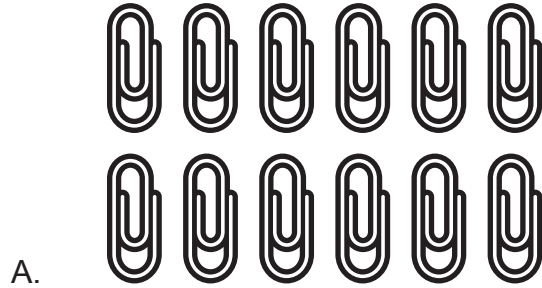
Point to the group with six paper clips.

Item 23, continued

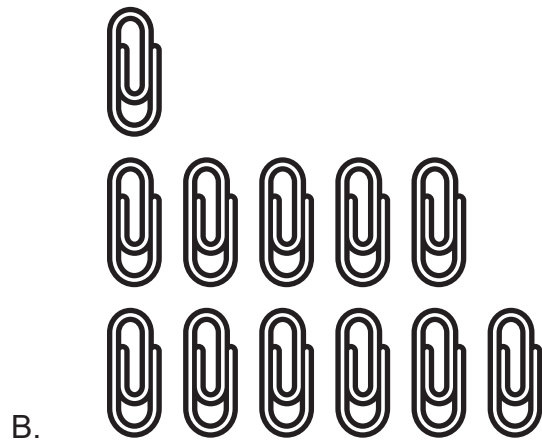
Which picture shows the paper clips in even groups?

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

[Graphic description: "A. This is a picture of two groups of paper clips. There are six paper clips in the first group. There are six paper clips in the second group."]



[Graphic description: "B. This is a picture of three groups of paper clips. There is one paper clip in the first group. There are five paper clips in the second group. There are six paper clips in the third group."]



Calculator may be used on this item.

Item 24

This item is about solving a word problem using a percent.

The word percent means out of one hundred.

A percent can be written as a fraction. Sixty-five percent written as a fraction is 65 over 100.

Point to the equation as the TTS or TA reads the graphic description.

[Graphic description: "Sixty-five percent equals sixty-five over one hundred."]

$$65\% = \frac{65}{100}$$

There are 100 students in the sixth grade of a school. In that school, 25 *[Graphic description: "percent"]* % of the sixth-grade students play an instrument.

How many sixth-grade students play an instrument?

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

- A. 25 students
- B. 50 students
- C. 75 students

Calculator may be used on this item.

Provide student with Celsius thermometer 2 from the Grade 6 Mathematics Practice Test Reference Materials.

Item 25

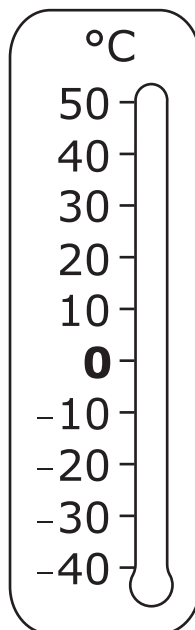
This item is about positive and negative numbers.

A thermometer is a tool used to measure temperature.

This is a picture of a Celsius thermometer.

Point to the picture.

[For students with visual impairment, read “This is a picture of a Celsius thermometer. There are five equally spaced marks moving upward from zero increasing by ten degrees. There are four equally spaced marks moving downward from zero decreasing by ten degrees.”]



The higher the number, the hotter the temperature.

This end of the thermometer has negative numbers.

Point to the negative numbers on the thermometer, beginning at zero and moving down.

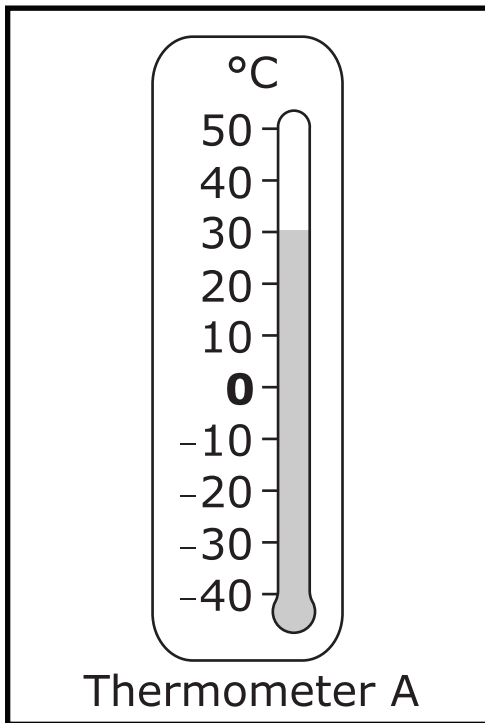
The lower the number, the colder the temperature.

Item 25, continued

Which thermometer shows the coldest temperature?

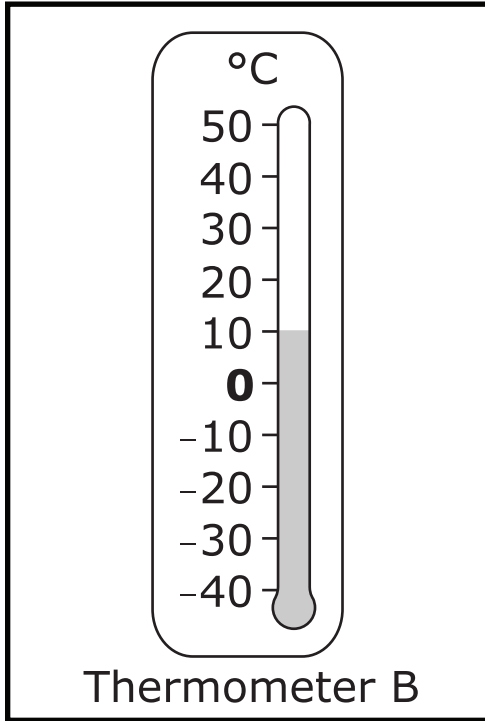
Point to the location of each option on the picture of the thermometer as the TTS or TA reads each graphic description.

[Graphic description: "A. This is a picture of a Celsius thermometer. The temperature on the thermometer is thirty degrees Celsius."]



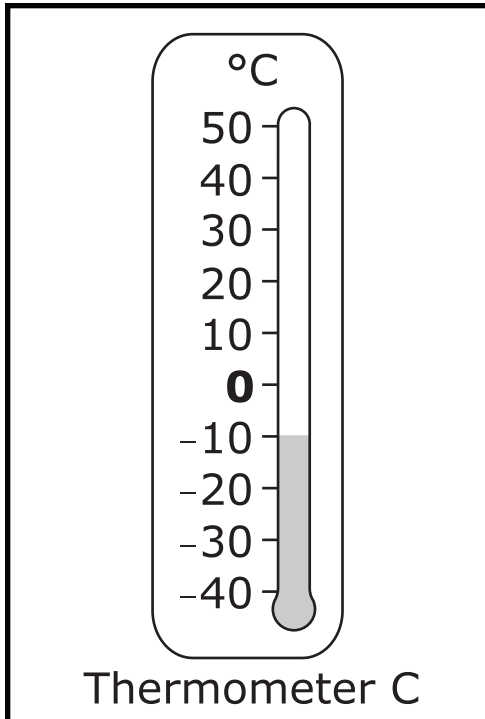
Item 25, continued

[Graphic description: "B. This is a picture of a Celsius thermometer. The temperature on the thermometer is ten degrees Celsius."]



B.

[Graphic description: "C. This is a picture of a Celsius thermometer. The temperature on the thermometer is negative ten degrees Celsius."]



C.

Calculator may be used on this item.

Provide student with at least 21 counters or other manipulatives to use, if needed.

Item 26

This item is about solving word problems with an equation.

This is a word problem.

Dana is placing chairs around a large table. She must place a total of 8 chairs around the table. She has already placed 5 chairs around the table.

This equation can be used to find the number of chairs Dana still has to place around the table.

Point to the equation as the TTS or TA reads the graphic description.

[Graphic description: "eight equals five plus c."]

$$8 = 5 + c$$

The letter **c** stands for the number of chairs that still need to be placed around the table.

The equation is used to solve for **c**.

Point to the c in the equation.

Because *[Graphic description: "eight equals five plus three"]* $8 = 5 + 3$, **c** equals 3. Three chairs still need to be placed around the table.

This is another word problem.

Abby needs to read 7 books for her class. She has finished reading 3 books.

Item 26, continued

This equation can be used to find out how many more books Abby still needs to read.

Point to the equation as the TTS or TA reads the graphic description.

[Graphic description: “seven equals three plus b.”]

$$7 = 3 + \mathbf{b}$$

The letter **b** stands for the number of books Abby still needs to read.

*Point to the **b** in the equation.*

How many more books does Abby need to read?

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

- A. 4 books
- B. 10 books
- C. 21 books

Calculator may be used on this item.

Provide student with Data Table 2, "Game Score" from the Grade 6 Mathematics Practice Test Reference Materials.

Item 27

This item is about positive and negative numbers.

Louis, Marie, and Neil played a quiz game. In the game, players earned points when they answered a question correctly. Players lost points when they answered a question incorrectly.

This data table shows the score each player had at the end of the game.

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

[Graphic description: "This is a data table titled, 'Game Score.' It shows the names of three players and the scores each player had at the end of one game. Louis scored negative fifteen points. Marie scored ten points. Neil scored negative twenty points."]

Game Score

Player	Score (in points)
Louis	-15
Marie	10
Neil	-20

Which player had the **lowest** score?

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

- A. Louis
- B. Marie

Item 27, continued

C. Neil

Calculator may be used on this item.

Item 28

This item is about finding a percent.

A percent can be written as a fraction. Twenty-five percent written as a fraction is 25 over 100.

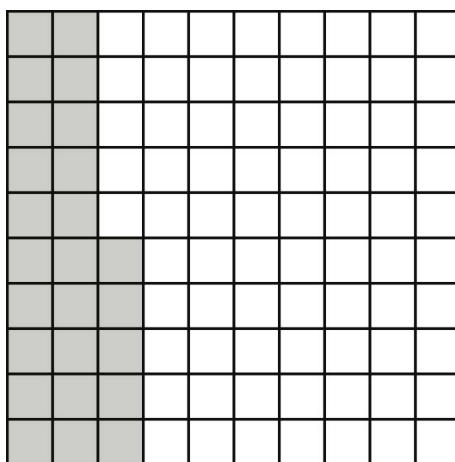
Point to the equation as the TTS or TA reads the graphic description.

[Graphic description: "Twenty-five percent equals twenty-five over one hundred."]

$$25\% = \frac{25}{100}$$

The grid has 100 squares in all. In the grid, 25 squares are shaded.

Point to the grid showing twenty-five percent.



This grid shows 25 *[Graphic description: "percent"]* % of the squares shaded.

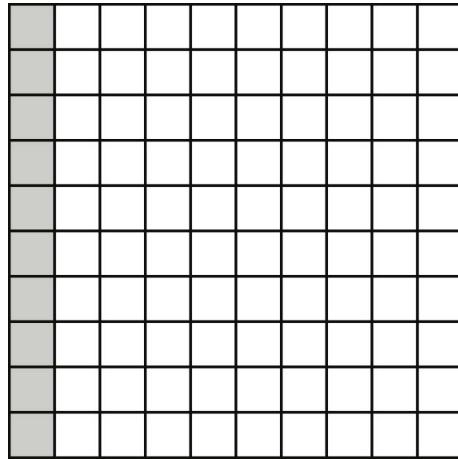
This is another problem.

Steve is selling raffle tickets for a sixth-grade fundraiser. He must sell 100 tickets. Steve has sold 10 raffle tickets.

Item 28, continued

Point to the grid showing ten percent.

[For students with visual impairment, read “This is a grid with one hundred squares. Ten squares are shaded.”]



What percent of the 100 raffle tickets has Steve sold?

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

- A. 1%
- B. 10%
- C. 90%

Calculator may be used on this item.

Provide student with up to 80 counters or other manipulatives to use if needed.

Item 29

This item is about solving a word problem.

A sixth-grade class is planning a field trip. There is a total of 64 students who will be attending. Each bus has seats for 16 students.

Which equation shows how many buses will be needed to fit all the students?

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

[Graphic description: "A. sixty-four divided by sixteen equals four."]

A. $64 \div 16 = 4$

[Graphic description: "B. sixty-four minus sixteen equals forty-eight."]

B. $64 - 16 = 48$

[Graphic description: "C. sixty-four plus sixteen equals eighty."]

C. $64 + 16 = 80$

Calculator may be used on this item.

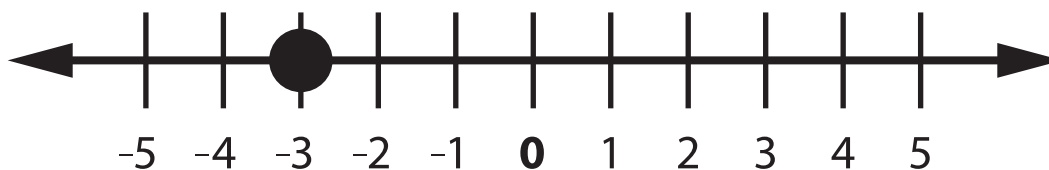
Item 30

This item is about locating positive and negative numbers on a number line.

This is a number line.

Trace the number line as the TTS or TA reads the graphic description.

[Graphic description: "This is a number line beginning at negative five on the left, followed by ten equally spaced marks, ending on the right at five. The third mark to the left of zero has a point that is labeled negative three."]



The numbers to the right of 0 are positive numbers.

Point to the numbers to the right of zero, beginning at zero and moving to positive five.

The numbers to the left of 0 are negative numbers. The symbol in front of these numbers means they are negative.

Point to the numbers to the left of zero, beginning at zero and moving to negative five.

This is *[Graphic description: "negative three"]* -3 on the number line.

Point to negative three on the number line.

Item 30, continued

This is another number line.

Trace the number line as the TTS or TA reads the graphic description.

*[Graphic description: "This is a number line beginning at negative five on the left, followed by ten equally spaced marks, ending on the right at five. There is a point on the line that is labeled **P**."]*



What is the location of point **P** on the number line?

*Point to point **P** on the number line.*

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

[Graphic description: "A. negative four."]

A. -4

[Graphic description: "B. zero."]

B. 0

[Graphic description: "C. four."]

C. 4

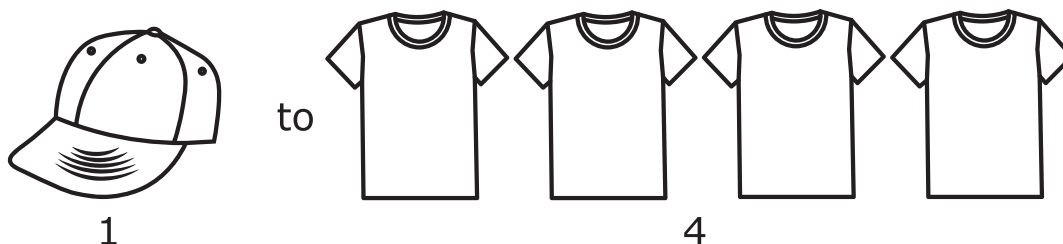
Calculator may be used on this item.

Item 31

This item is about a ratio.

A ratio tells how one quantity is related to another quantity. For example, for every 1 hat Karl has, he has 4 shirts.

Point to the picture.



This is a ratio written with a word.

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

[Graphic description: "one to four"]

1 to 4

This is another ratio.

An art teacher is making pink paint. For every 2 cups of red paint she uses in the mixture, she needs to use 3 cups of white paint.

What is the ratio of red paint to white paint in the mixture?

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

- A. 1 to 3
- B. 2 to 3
- C. 2 to 5

Calculator may be used on this item.

Provide student with Equation 2 of plants from the Grade 6 Mathematics Practice Test Reference Materials.

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


Item 32

This item is about solving an equation.

Aaron had 4 plants. Then, his friend gave him 3 more plants.

Point to the equation as the TTS or TA reads the graphic description.

[Graphic description: "four plants plus three plants equals p."]


$$4 + 3 = p$$

A letter can stand for a missing value in an equation. The letter **p** in this equation stands for the total number of plants Aaron has now.

Point to the p in the equation.

What is the total number of plants Aaron has now?

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

- A. 4 plants
- B. 7 plants
- C. 12 plants

Calculator may be used on this item.

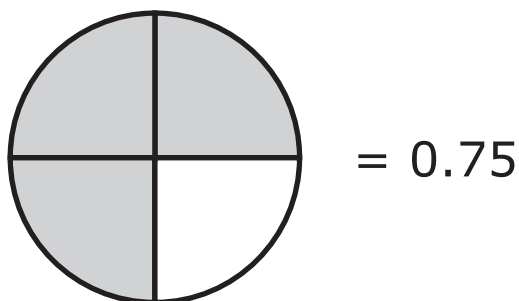
Item 34

This item is about adding decimal numbers.

This model shows seventy-five hundredths.

Point to the seventy-five hundredths model as the TTS or TA reads the graphic description.

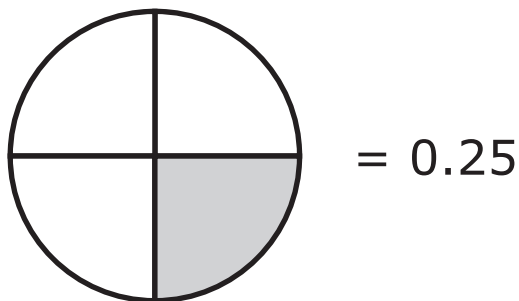
[Graphic description: "This is a picture of a circle divided into four equal parts, with three parts shaded. It is labeled seventy-five hundredths."]



This model shows twenty-five hundredths.

Point to the twenty-five hundredths model as the TTS or TA reads the graphic description.

[Graphic description: "This is a picture of a circle divided into four equal parts, with one part shaded. It is labeled twenty-five hundredths."]

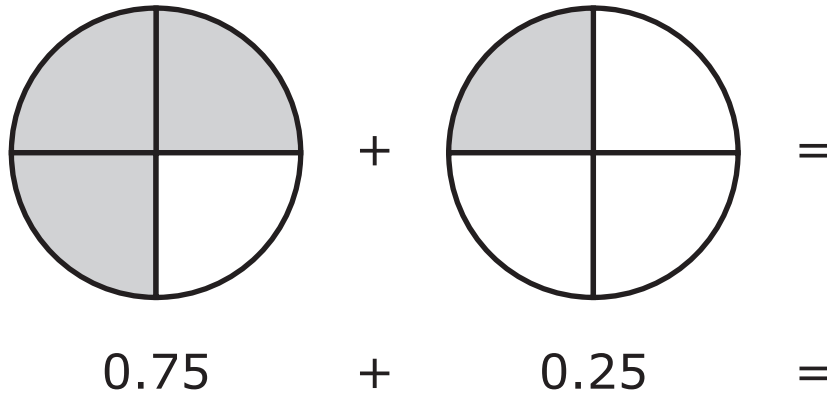


Item 34, continued

This is an addition problem.

Point to the addition problem as the TTS or TA reads the graphic description.

[Graphic description: "This is a picture of two circles. The first circle is divided into four equal parts, with three parts shaded. The second circle is also divided into four equal parts, with one part shaded. The addition problem reads seventy-five hundredths plus twenty-five hundredths equals."]



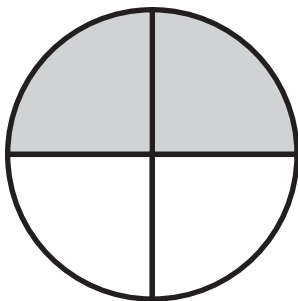
Add these two numbers together.

Point to the numbers in the addition problem.

What is the answer to this problem?

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

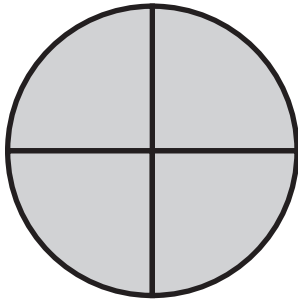
[Graphic description: "A. This is a picture of a circle divided into four equal parts, with two parts shaded. It is labeled fifty-hundredths."]



A. 0.50

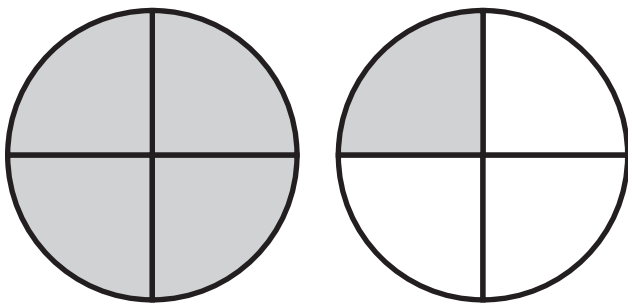
Item 34, continued

[Graphic description: "B. This is a picture of a circle divided into four equal parts, with four parts shaded. It is labeled one."]



B. 1.00

[Graphic description: "C. This is a picture of two circles, each divided into four equal parts. Four parts in the first circle are shaded. One part in the second circle is shaded. It is labeled one and twenty-five hundredths."]



C. 1.25

Calculator may be used on this item.

Provide student with Place Value Chart 1 of two numbers from the Grade 6 Mathematics Practice Test Reference Materials.

Item 35

This item is about adding decimal numbers.

This is an addition problem.

Point to the problem as the TTS or TA reads the graphic description.

[Graphic description: “thirty-four hundredths plus twelve hundredths”]

$$\begin{array}{r} 0.34 \\ + 0.12 \\ \hline \end{array}$$

A place value chart can be used to add the numbers together.

Point to the place value chart as the TTS or TA reads the graphic description.

[Graphic description: “This is a place value chart that shows two numbers. The first number shows thirty-four hundredths. There is a zero in the ones place, a three in the tenths place, and a four in the hundredths place. The second number shows twelve hundredths. There is a zero in the ones place, a one in the tenths place, and a two in the hundredths place.”]

Ones	Decimal	Tenths	Hundredths
0	.	3	4
0	.	1	2
	.		

Item 35, continued

What is the answer to this problem?

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

[Graphic description: "A. twenty-two hundredths."]

A. 0.22

[Graphic description: "B. forty-six hundredths."]

B. 0.46

[Graphic description: "C. seventy-three hundredths."]

C. 0.73

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