

LEAP 2025

Mathematics

2017 PBT Practice Test

Grade 4

Communication
Assistance Script

This script is to be used by the Teacher, Test Administrator, or Interpreter to assist in signing the test for students who have the accommodation *Communication Assistance*. This is a secure document and must be kept in a locked, secure area before and after testing. It must be returned immediately to the School Test Coordinator after the scheduled testing has ended for the day. When testing is completed, the School Test Coordinator must return the script to the District Test Coordinator.

Instructions for Signing the Test

This script is written as it should be signed to the student. Pause when <pause> is inserted in text.

Session 1 <pause>

Directions: <pause>

Today, you will take Session 1 of the Grade 4 Mathematics Test. You will not be able to use a calculator in this session. <pause>

Read each question. Then, follow the directions to answer each question. Mark your answers by completely filling in the circles in your test booklet. Do not make any stray pencil marks outside of the circles. If you need to change an answer, be sure to erase your first answer completely. <pause>

If a question asks you to show or explain your work, you must do so to receive full credit. Only responses written within the provided space will be scored. <pause>

If you do not know the answer to a question, you may go to the next question. If you finish early, you may review your answers and any questions you did not answer in this session **ONLY**. Do not go past the stop sign. <pause>

Directions for Completing the Answer Grids <pause>

1. Work the problem and find an answer. <pause>
2. Write your answer in the boxes at the top of the grid. <pause>
3. Print only one number or symbol in each box. Do not leave a blank box in the middle of an answer. <pause>
4. Under each box, fill in the circle that matches the number or symbol you wrote above. Make a solid mark that completely fills the circle. <pause>
5. Do not fill a circle under an unused box. <pause>
6. Fractions cannot be entered into an answer grid and will not be scored. Enter fractions as decimals.
7. See below for examples on how to correctly complete an answer grid. <pause>

To answer six hundred thirty-two in a question, fill in the answer grid as shown on the left in your test booklet.

To answer .75 in a question, fill in the answer grid as shown on the right in your test booklet.

Question 1:

Which expression is equivalent to six times two-thirds? *<pause>*

- A. Three times one-third
- B. Four times one-third
- C. Eight times one-third
- D. Twelve times one-third

Question 2:

Casey spent eighteen minutes coloring. She spent six times as many minutes reading.

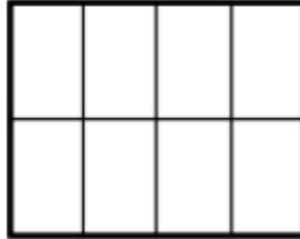
<pause>

How much time, in minutes, did Casey spend reading? *<pause>*

Enter your answer in the box.

Question 3:

The rectangle is divided into eight equal sections. *<pause>*



Jodi colors four sections. Then she colors three more sections. *<pause>*

Which **two** of these represent the fraction of the rectangle that Jodi colors in all?
<pause>

Select the **two** correct answers. *<pause>*

- A. Four-eighths plus three-eighths
- B. Four plus three
- C. Eight-fourths plus eight-thirds
- D. One-eighth plus three
- E. One-eighth plus one-eighth plus one-eighth plus one-eighth plus one-eighth plus one-eighth plus one-eighth

Question 4:

Enter your answer in the box. <pause>

$$5,314 - 4,983 = \boxed{}$$

Five thousand, three hundred fourteen minus four thousand, nine hundred eighty-three equals blank. <pause>

For the answer choices in this question, please sign only the letters A, B, C, D.

Question 5:

Which angle has a measure of sixty-five degrees? <pause>

You can use a protractor to help you find the answer. <pause>

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

Question 6:

What is the expanded form of five zero two one zero? <pause>

- A. Five thousand plus twenty plus one
- B. Five thousand plus two hundred plus ten
- C. Fifty thousand plus twenty plus one
- D. Fifty thousand plus two hundred plus ten

For the answer choices in this question, please sign only the letters A, B, C, D, E.

Question 7:

Which **three** shapes appear to have at least two parallel sides? *<pause>*

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

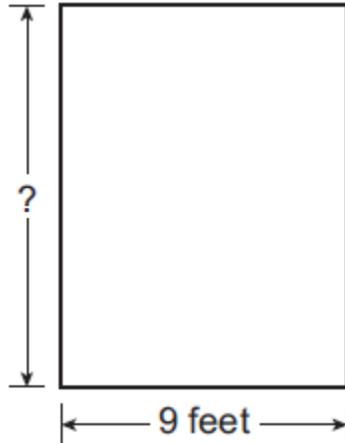
Question 8:

Ryan makes six backpacks. He uses three-fourths yard of cloth to make each backpack. What is the total amount of cloth, in yards, Ryan uses to make all six backpacks? *<pause>*

- A. One and one-half
- B. Two and one-fourth
- C. Four and one-half
- D. Six and three-fourths

Question 9:

The area of the rectangular sandbox at Dave’s school is one hundred eight square feet. The sandbox has a width of nine feet, as shown in the diagram. *<pause>*



The labels around the figure are question mark and nine feet. *<pause>*

What is the length, in feet, of the sandbox? *<pause>*

Enter your answer in the box.

Question 10:

Which **two** equations represent the statement forty-eight is six times as many as eight? *<pause>*

Select the **two** correct answers. *<pause>*

- A. Forty-eight equals six plus eight
- B. Forty-eight equals six times eight
- C. Forty-eight equals six times six
- D. Forty-eight equals eight plus six
- E. Forty-eight equals eight times six

Use the information provided to answer Part A and Part B for question 11.

Question 11:

Jordan places two boards end to end to make one shelf. The first board is a fraction with numerator forty-seven and denominator one hundred meter long. The second board is five tenths meter long. <pause>

Part A <pause>

What fraction is equivalent to five tenths and has a denominator of one hundred?

<pause>

- A. A fraction with numerator five and denominator one hundred
- B. A fraction with numerator fifty and denominator one hundred
- C. A fraction with numerator one hundred five and denominator one hundred
- D. A fraction with numerator one hundred fifty and denominator one hundred

Part B <pause>

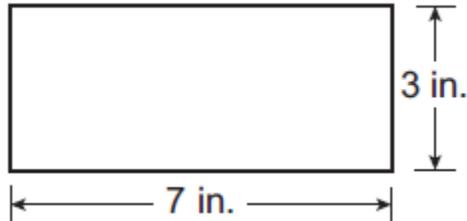
What is the total length, in meters, of the two boards? <pause>

- A. Nine and seven tenths
- B. Five and two tenths
- C. A fraction with numerator ninety-seven and denominator one hundred
- D. A fraction with numerator fifty-two and denominator one hundred

Use the information provided to answer Part A and Part B for question 12.

Question 12:

A rectangle is shown. <pause>



The labels around the figure are three inches, seven inches. <pause>

Part A <pause>

A student uses square tiles measuring one inch on each side to find the area of the rectangle. Her reasoning is shown. <pause>

I covered the top and bottom edges of the rectangle with seven tiles each. <pause>



I then covered the left and right edges with three tiles each. I added up all the tiles I used to get a total area of twenty square inches. Seven plus seven plus three plus three equals twenty. <pause>



Identify the two errors in the student's reasoning and describe how to correctly use square tiles to find the area of the rectangle. Give the correct area of the rectangle. <pause>

Enter your answers and your description in the box provided. <pause>

Part B

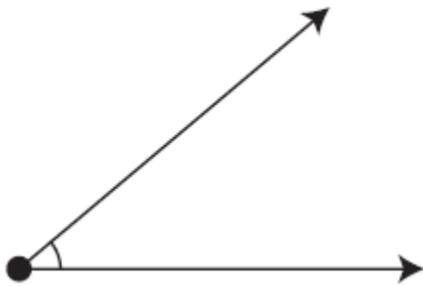
Write a multiplication sentence that models how to find the area of the rectangle shown.

<pause>

Enter your multiplication sentence in the box provided. <pause>

Question 13:

Look at the angle shown. <pause>



Which measure is closest to the measure of the angle? <pause>

- A. One hundred forty degrees
- B. Ninety degrees
- C. Forty degrees
- D. Fifteen degrees

Question 14:

Part A <pause>

A school’s art teacher needs two hundred sticks of clay. An art shop donates nine small boxes of clay and six large boxes of clay. <pause>

Box Size	Number of Sticks of Clay in Each Box
small	7
large	10

The first column is labeled “Box Size,” and the second column is labeled “Number of Sticks of Clay in Each Box.” <pause>

First row: Small, seven. Second row: Large, ten. <pause>

How many more sticks of clay will the art teacher need? <pause>

Enter your answer in the box.

Part B <pause>

The art teacher buys the rest of the clay he needs in large boxes. The cost of one large box of clay is fourteen dollars. What is the total cost for these boxes of clay? Show or explain your work. <pause>

Enter your answer and your work or explanation in the box provided.

Question 15:

Enter your answer in the box to make the number sentence true. *<pause>*

$$5,039 \times 8 = \boxed{}$$

Five thousand, thirty-nine times eight equals blank. *<pause>*

Session 2 *<pause>*

Directions: *<pause>*

Today, you will take Session 2 of the Grade 4 Mathematics Test. You will not be able to use a calculator in this session. *<pause>*

Read each question. Then, follow the directions to answer each question. Mark your answers by completely filling in the circles in your test booklet. Do not make any stray pencil marks outside of the circles. If you need to change an answer, be sure to erase your first answer completely. *<pause>*

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Question 16:

An animal weighs four pounds. A bald eagle weighs three times as much as this animal. How many pounds does the bald eagle weigh? *<pause>*

Enter your answer in the box.

Question 17:

Which **three** comparisons are correct? *<pause>*

- A. zero point four meter is greater than zero point zero four meter
- B. zero point zero four meter is greater than zero point three meter
- C. zero point three meter is lesser than zero point five meter
- D. zero point five meter is greater than zero point six five meter
- E. zero point six five meter is greater than zero point six one meter
- F. zero point six five meter is lesser than zero point zero four meter

Question 18.

Divide seven hundred thirty-eight by six. *<pause>*

Enter your answer in the box.

Use the information provided to answer Part A and Part B for question 19.

Question 19:

Each student in a class chose one sport to play. The table shows the fractions of all students who chose each sport. <pause>

Sport	Fraction of All Students
soccer	$\frac{3}{10}$
football	$\frac{2}{10}$
hockey	$\frac{1}{10}$
basketball	$\frac{4}{10}$

The table has two columns. The first column is labeled Sport and the second column is labeled Fraction of All Students. <pause>

First row: Soccer, three tenths; second row: football, two tenths; third row: hockey, one tenth; fourth row: basketball, four tenths. <pause>

Part A <pause>

Which equation can be used to find s , the fraction of all students that chose to play either soccer or basketball? <pause>

- A. three-tenths plus four-tenths equals s
- B. two-tenths minus one-tenth equals s
- C. four-tenths plus two-tenths equals s
- D. four-tenths minus three-tenths equals s

Part B <pause>

What fraction of all the students chose to play either soccer or basketball? <pause>

- A. One-tenth
- B. Three-tenths
- C. Six-tenths
- D. Seven-tenths

For the answer choices in this question, please sign only the letters A, B, C, D, E, F.

Question 20:

Which of these show lines of symmetry? <pause>

Select the **three** correct answers. <pause>

- A.
- B.
- C.
- D.
- E.
- F.

Question 21:

What is the value of nine thousand, three hundred forty-eight plus two thousand, two hundred thirty-seven? <pause>

Enter your answer in the box.

Use the information provided to answer Part A and Part B for question 22.

Question 22:

Of the students in one school, a fraction with numerator one and denominator twelve play soccer, three-eighths play basketball, two-fifths take music lessons, and two-sixths take dance lessons. *<pause>*

Part A

Which fraction is equivalent to the fraction of students who take music lessons at the school? *<pause>*

- A. Three-sixths
- B. Five-eighths
- C. Four-tenths
- D. A fraction with numerator four and denominator twelve

Part B *<pause>*

Which list orders the fractions from least to greatest? *<pause>*

- A. A fraction with numerator one and denominator twelve, two-fifths, two-sixths, three-eighths
- B. Two-fifths, three-eighths, two-sixths, a fraction with numerator one and denominator twelve
- C. Two-fifths, two-sixths, three-eighths, a fraction with numerator one and denominator twelve
- D. A fraction with numerator one and denominator twelve, two-sixths, three-eighths, two-fifths

Question 23:

Which of these numbers are prime numbers? <pause>

Select the **three** numbers that are prime. <pause>

- A. fifteen
- B. nineteen
- C. twenty-seven
- D. thirty-seven
- E. forty-three
- F. fifty-one

Question 24.

Mr. Kowolski ordered thirty-five boxes of granola bars. Each box contained twenty-four granola bars. <pause>

What is the total number of granola bars Mr. Kowolski ordered? <pause>

Enter your answer in the box.

Question 25:

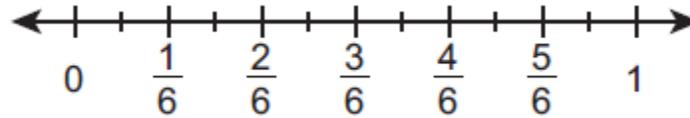
The value of the digit four in the number four two seven eight zero is ten times the value of the digit four in which number? <pause>

- A. three four six five one
- B. one four six seven zero three
- C. four two six one three five
- D. five one zero four zero zero

Question 26:

Explain how to find two times a fraction with numerator five and denominator twelve using the number line. *<pause>*

Find the product. *<pause>*

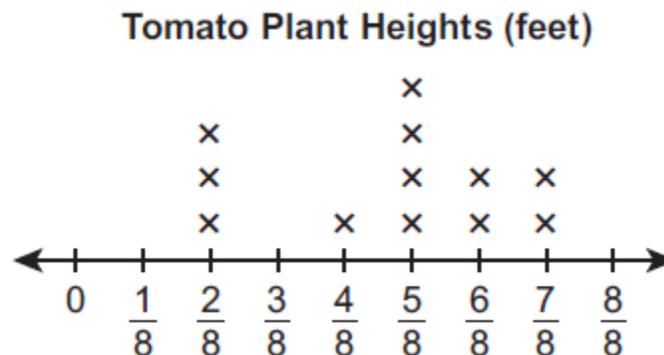


A number line is shown. The numbers below the number line are zero, one sixth, two sixths, three sixths, four sixths, five sixths, one. *<pause>*

Enter your answer and your explanation in the box provided.

Question 27:

The line plot represents the heights, in feet, of tomato plants in a garden. *<pause>*



The title of the line plot is “Tomato Plant Heights, feet.” The numbers below the line plot are zero, one eighth, two eighths, three eighths, four eighths, five eighths, six eighths, seven eighths, eight eighths. *<pause>*

What is the difference, in feet, between the tallest and shortest plant heights? *<pause>*

- A. one-eighth
- B. three-eighths
- C. five-eighths

D. seven-eighths

Question 28:

Which statement about angles is true? *<pause>*

- A. An angle is formed by two rays that do not have the same endpoint.
- B. An angle that turns through a fraction with numerator one and denominator three hundred sixty of a circle has a measure of three hundred sixty degrees.
- C. An angle that turns through five one-degree angles has a measure of five degrees.
- D. An angle measure is equal to the total length of the two rays that form the angle.

Question 29:

A student uses tubes of paint to draw on one poster and two shirts. *<pause>*

- The student uses six tubes of paint to draw on the poster. *<pause>*
- The number of tubes used for the poster is three times the number of tubes used for each shirt. *<pause>*
- Each tube contains one-third ounce of paint. *<pause>*

How many ounces of paint does the student use for one shirt? How many ounces of paint does the student use to make one poster and two shirts? Show your work or explain your answers. *<pause>*

Enter your answers and your work or explanation in the box provided.

Session 3 <pause>

Directions: <pause>

Today, you will take Session 3 of the Grade 4 Mathematics Test. You will not be able to use a calculator in this session. <pause>

Read each question. Then, follow the directions to answer each question. Mark your answers by completely filling in the circles in your test booklet. Do not make any stray pencil marks outside of the circles. If you need to change an answer, be sure to erase your first answer completely. <pause>

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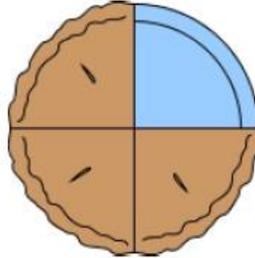
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To answer .75 in a question, fill in the answer grid as shown on the right in your test booklet.

Question 30:

Jasmine ate one-fourth of a pie. She drew a model to represent the fraction of the pie that she ate. <pause>



Which fraction is equivalent to the fraction of the pie that Jasmine ate? <pause>

- A. Two-fifths
- B. Three-sixths
- C. Two-eighths
- D. One-twelfth

Question 31:

The Amazon River is about six thousand, five hundred sixteen kilometers long. <pause>

The Mississippi River is about three thousand, seven hundred seventy-five kilometers long. <pause>

What is the difference, in kilometers, between these two lengths? <pause>

Enter your answer in the box.

Question 32:

Which expressions have a value of a fraction with numerator eight and denominator twelve? <pause>

Select the **three** correct answers. <pause>

- A. two-twelfths plus four-twelfths
- B. six-twelfths plus two-twelfths
- C. one-twelfth plus two-twelfths plus four-twelfths
- D. three-twelfths plus two-twelfths plus two-twelfths plus one-twelfth
- E. one twelfth plus two-twelfths plus one-twelfth plus two-twelfths plus one-twelfth plus two-twelfths
- F. one-twelfth plus one-twelfth

Question 33:

Which numbers make the comparison true? <pause>

$$27,768 < \square$$

Two seven seven six eight is less than blank. <pause>

Select the **two** correct answers. <pause>

- A. two seven seven five nine
- B. two eight seven four four
- C. two six seven seven three
- D. two seven five six eight
- E. two seven eight three six

Question 34:

The length of a desktop is four feet. How many inches is the length of the desktop?

<pause>

Enter your answer in the box.

Question 35:

During a class trip to an apple farm, a group of students picked two thousand, four hundred thirty-six apples. They packed them into six boxes to take to the local food bank. If each box held the same number of apples, how many apples were in each box?

<pause>

- A. forty-six apples
- B. four hundred six apples
- C. four hundred sixty apples
- D. four thousand, sixty apples

Question 36:

What is the decimal form of the fraction with numerator nine and denominator one hundred? <pause>

- A. zero point nine
- B. zero point zero nine
- C. zero point zero, zero nine
- D. zero point zero, zero, zero nine

Question 37:

Enter your answer in the box. <pause>

$$3,950 + 405 = \boxed{}$$

Three thousand, nine hundred fifty plus four hundred five equals blank. <pause>

Question 38:

Isabel used two-thirds cup of strawberries in a fruit salad. She used less than two-thirds cup of blueberries in the same salad. Which of the following could be the fraction of a cup of blueberries that Isabel used? *<pause>*

Select the **three** fractions that could represent the fraction of a cup of blueberries.
<pause>

- A. one-half
- B. one-fourth
- C. four-fifths
- D. five-sixths
- E. three-eighths

Question 39:

Select the **three** choices that are factor pairs for the number twenty-eight. *<pause>*

- A. one and twenty-eight
- B. two and fourteen
- C. three and nine
- D. four and seven
- E. six and five
- F. eight and three

Question 40:

In one year, Janie sent four thousand, three hundred sixty-eight text messages. Tanner sent four times as many text messages as Janie. How many more text messages did Tanner send than Janie? *<pause>*

Enter your answer in the box.

Question 41:

A student's work to add the mixed numbers one and three-fourths and two and three-fourths is shown. *<pause>*

$$\begin{aligned}
 1\frac{3}{4} + 2\frac{3}{4} &= \frac{4}{4} + \frac{3}{4} + \frac{8}{4} + \frac{3}{4} \\
 &= \frac{4 + 3 + 8 + 3}{4 + 4 + 4 + 4} \\
 &= \frac{18}{16}
 \end{aligned}$$

One and three fourths plus two and three fourths equals four fourths plus three fourths plus eight fourths plus three fourths; equals a fraction with numerator four plus three plus eight plus three and denominator four plus four plus four plus four; equals a fraction with numerator eighteen and denominator sixteen. *<pause>*

Explain any errors you see in the work. Find the correct solution. Show your work or explain your answer. *<pause>*

Enter your explanation, your solution, and your work or explanation in the box provided.

Question 42.

A photographer has five hundred ninety-one photos of animals and two hundred thirty-four photos of plants. He wants to put all of the photos into photo books. Each page of the photo books holds eight photos. What is the fewest number of pages he could use in the photo books? *<pause>*

- A. Seventy-three
- B. Seventy-four
- C. One hundred three
- D. One hundred four

Use the information provided to answer Part A and Part B for question 43.

Question 43:

Carl is training for a bike race. *<pause>*

- On Thursday, he rides his bike seven miles. *<pause>*
- On Friday, he rides his bike two times the number of miles he rides on Thursday. *<pause>*
- On Saturday, he rides his bike nine miles. *<pause>*

Part A *<pause>*

Explain how to find the total number of miles Carl rides his bike on Thursday, Friday, and Saturday. Include the total number of miles he rides in your explanation. *<pause>*

Enter your explanation in the box provided.

Part B *<pause>*

Carl wants to ride his bike a total of thirty-six miles over the next three days. He will add the same number of miles to each distance from Part A. *<pause>*

Show or explain how to find the number of miles Carl should add to his distance each day. *<pause>*

- Include the number of miles added to his distance each day in your work or explanation. *<pause>*
- Include the new distance for each of the three days in your work or explanation. *<pause>*

Enter your explanation or your work in the box provided.

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