Louisiana Believes

Grade 4 Mathematics
Practice Test

For further information, contact:
Louisiana Department of Education's Help Desk
1-877-453-2721
Ask LDOE?
http://www.louisianaschools.net/offices/publicaffairs/ask.aspx

LEAP Practice Test—Grade 4 Mathematics

Test Administrator Instructions

★ This document contains a Practice Test that shows what each part, or session, of an actual grade 4 transitional math assessment is like.

The Practice Test may be used at home or at school for students to become familiar with the LEAP test they will take in spring 2013. It can help students feel more relaxed when they take the actual test.

★ The LEAP Assessment Guides provide information on the overall design of the actual test, as well as sample test items and suggested informational resources. The Assessment Guides for each grade can be found on the Louisiana Department of Education's website.

www.louisianabelieves.com/resources/library/assessment

The mathematics test has three sessions to be taken separately:

- Session 1 (pages 3 to 17) includes 36 multiple-choice questions—a calculator may not be used.

- Session 2 (pages 19 to 31) includes 24 multiple-choice questions—a calculator may be used.

- Session 3 (pages 33 to 35) includes 3 constructed-response questions—a calculator may be used.

★ A Mathematics Reference Sheet, which students may use for all sessions, is located on page 38.

★ Students respond to multiple-choice items using the Answer Sheets on pages 36 and 37 and constructed-response items using pages 33 to 35 of Session 3.

★ The Answer Keys and Scoring Rubrics, used to score student responses, are located on pages 39 to 43.

When printing the PDF files for the three Math Sessions, be sure to set the *Page Scaling* drop-down menu on the Print screen to <u>None</u>, <u>No Scaling</u>, or <u>Actual Size</u> depending on the printer you are using. Otherwise measurement items may not be the correct size, which may impact student responses.

DEPARTMENT of EDUCATION
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Mathematics—Sessions 1, 2, and 3
GENERAL INSTRUCTIONS

The Mathematics test has three sessions, two with multiple-choice questions and one with constructed-response questions. You may **not** use a calculator for session 1, but you may use a calculator for sessions 2 and 3.

Session 1—Mathematics (No Calculator)

Write your answers for questions 1 through 36 in the spaces provided on page 36, session 1 answer sheet. Write only one answer for each question. You may work problems in your test booklet or on scratch paper, but you must mark your answer on your answer sheet. You may review your work in this session but do not work on any other session.

You may NOT use a calculator for this session.

1. Ray and 3 friends played with a remote-control car for a total of 105 minutes. They each played with the car for the same amount of time. **Which statement about the amount of time Ray and his friends spent playing with the car is true?**

   A. They each played with the car for 21 minutes with no minutes left over.

   B. They each played with the car for 22 minutes with 3 minutes left over.

   C. They each played with the car for 25 minutes with no minutes left over.

   D. They each played with the car for 26 minutes with 1 minute left over.

2. Aaron's pet hamster weighs $\frac{3}{10}$ pound. **Which decimal is equal to the weight, in pounds, of Aaron's pet hamster?**

   A. 0.103

   B. 0.3

   C. 0.310

   D. 3.10

Session 1—Mathematics (No Calculator)

3. A survey asked students to identify their favorite ride at an amusement park. The bar graph below shows the results of 100 students' answers to the survey.

Favorite Ride
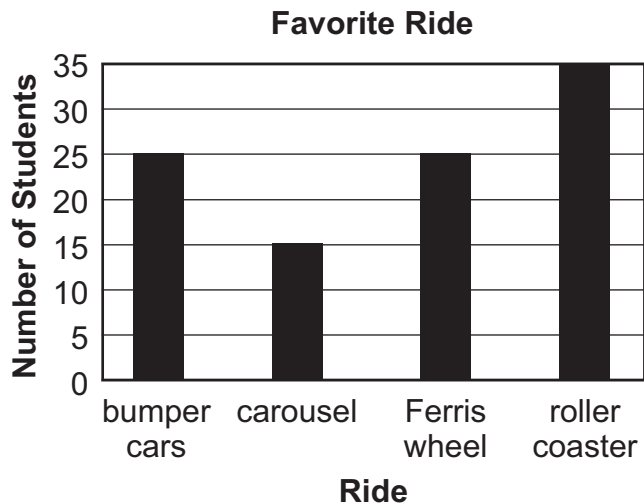
Which circle graph correctly shows the results of the survey?
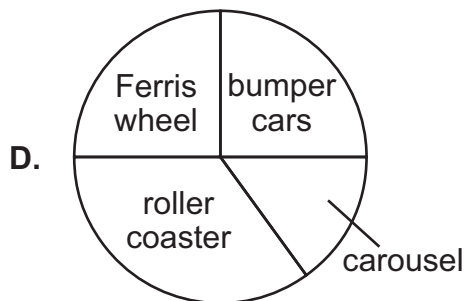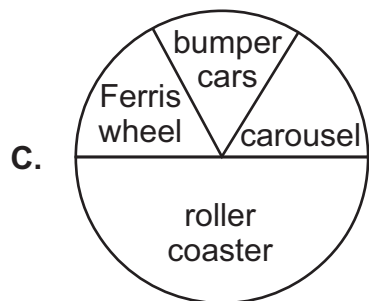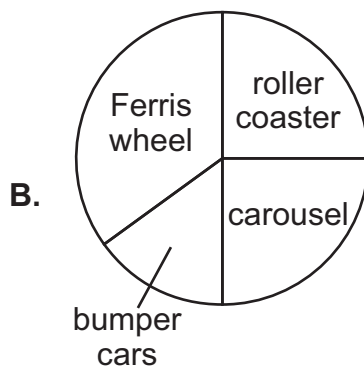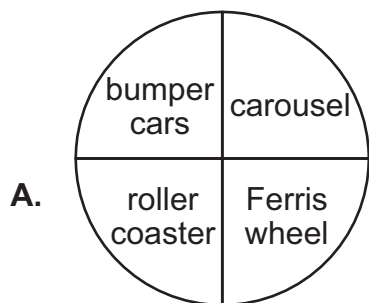
Session 1—Mathematics (No Calculator)

4. Carolyn saves programs from football and basketball games she has attended. She has 18 programs from football games. She has a total of 37 programs. The number sentence below can be used to find the number of programs she has from basketball games, *b*.

$$18 = 37 - b$$

How many programs from basketball games, *b*, does Carolyn have?

A. 19 programs

B. 21 programs

C. 45 programs

D. 55 programs

5. Lily is going to give away all the pieces of candy in a bag. She can give an equal number of candy to 5, 3, or 2 people. **Which number of pieces of candy could be in Lily's bag?**

A. 12

B. 20

C. 30

D. 45

6. Amelia's pencil is $\frac{12}{100}$ meter long. **What is the length, in meters, of Amelia's pencil written as a decimal?**

A. 0.12

B. 1.02

C. 1.2

D. 12.100

7. An office building has 300,000 + 5,000 + 600 + 10 square feet of floor space. **What is the number of square feet of floor space written in standard form?**

A. 30,561

B. 35,610

C. 300,561

D. 305,610

Session 1—Mathematics (No Calculator)

8. A marching band has 75 members. They have as many rows as possible with 8 band members each. The rest of the band members are in the back row. The number sentence below can be used to help find the number of band members who are in the back row.

$$75 \div 8 = \square$$

How many band members are in the back row?

A. 3 band members

B. 4 band members

C. 5 band members

D. 9 band members

9. Jerome knows $\frac{2}{4}$ of the words on his spelling list. **What decimal is equal to $\frac{2}{4}$?**

A. 0.24

B. 0.5

C. 2.4

D. 5.0

10. Jean is going to build a table. She wants a tabletop that has only acute angles. **Which shape could Jean use for her tabletop?**

A.

B.

C.

D.
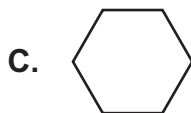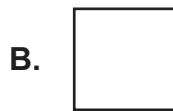
11. Westview School is buying new basketball uniforms that cost $46 per uniform. The school will buy 12 uniforms. **What is the total cost to buy 12 uniforms?**

    A. $138

    B. $412

    C. $552

    D. $652

12. Brady saw that people were sitting in $\frac{6}{10}$ of the chairs in the library. **What decimal is equal to the fraction of library chairs that had people sitting in them?**

    A. 0.06

    B. 0.6

    C. 0.610

    D. 6.10

13. Addison has 48 music CDs. She put the same number of CDs into each of her 4 CD cases. **How many CDs are in each case?**

    A. 12 CDs

    B. 14 CDs

    C. 17 CDs

    D. 21 CDs

Session 1—Mathematics (No Calculator)

14. Sheryl made a rectangular cake. The shaded part of the picture shows the remaining portion of the cake after some of it was eaten.

Sheryl's Cake
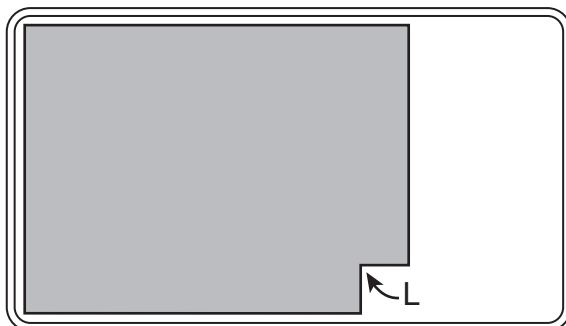
Angle L was created by the last piece of cake that was eaten. **What type of angle does this appear to be?**

A. acute

B. obtuse

C. right

D. straight

15. All of the students in fourth grade will have a turn to help the crossing guard. The number sentence below can be used to help find the number of weeks it will take until all the students have helped the school crossing guard.

$$9 \times \square = 204$$

How long will it take for every student to have a turn to help?

A. 22 weeks

B. 23 weeks

C. 28 weeks

D. 33 weeks

16. The number of cards needed for each level of a house of cards is shown in the table below.

House of Cards

| Level	Number of Cards
1	17
2	14
3	11

The pattern continues. **What is the maximum number of completed levels this house of cards can have?**

A. 2 levels

B. 3 levels

C. 6 levels

D. 8 levels

17. A store found that 0.75 of all toothbrushes sold were for adults. **Which fraction is equal to the decimal amount of all the toothbrushes sold that were for adults?**

A. $\frac{5}{7}$

B. $\frac{75}{100}$

C. $\frac{7}{5}$

D. $\frac{75}{10}$

Session 1—Mathematics (No Calculator)

18. The number of purchases made at a store each day from Monday through Friday is shown in the bar graph below.
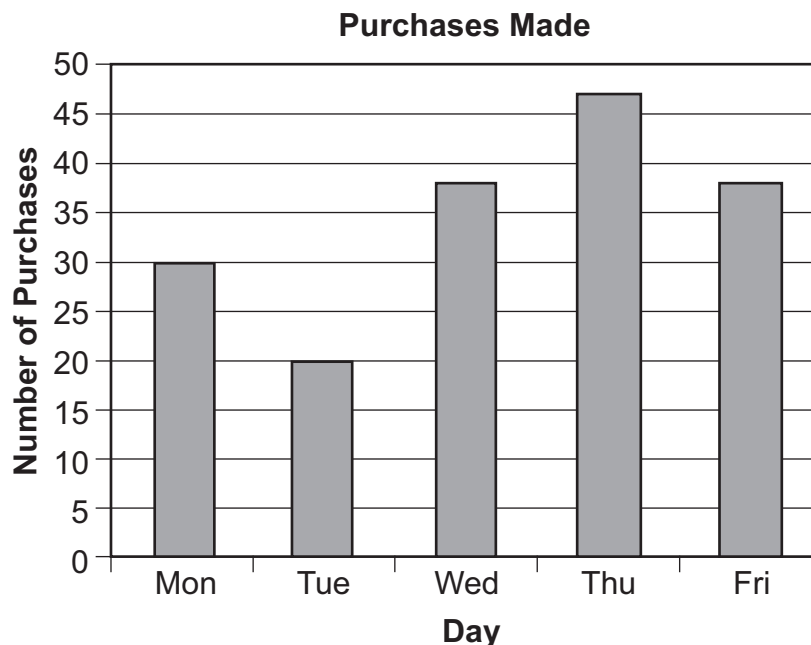
Purchases Made

Which comparison about the purchases made is true?

A. The number of purchases made on Monday was less than the number of purchases made on Tuesday.

B. The number of purchases made on Wednesday was the same as the number of purchases made on Thursday.

C. The number of purchases made on Friday was twice as many as the number of purchases made on Tuesday.

D. The number of purchases made on Thursday was greater than the number of purchases made on Monday.

19. Some chairs were set up for a meeting. There were 7 rows of chairs. There were 9 chairs in each row. **How many chairs were set up for the meeting?**

A. 53 chairs

B. 61 chairs

**C.** 63 chairs

D. 79 chairs

Session 1—Mathematics (No Calculator)

20. Alison ran a total of 200 miles over 8 weeks. She ran the same number of miles each week. The number sentence below can be used to find the number of miles, m, she ran each week.

$$m \times 8 = 200$$

How many miles, *m*, did Alison run each week?

A.   4 miles

B.   25 miles

C.   40 miles

D. 192 miles

21. Sandra planted some flowers. On Monday, 6 out of 12 flowers were blooming. This is shown in the model below.
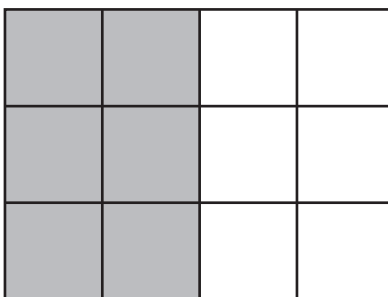
On Tuesday, more of Sandra's flowers were blooming but not all of them. **Which fraction of flowers could be blooming on Tuesday?**

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

B. $\frac{1}{3}$

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

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

Session 1—Mathematics (No Calculator)

22. On each of the 31 days in January, Michelle did exactly 45 push-ups. **How many push-ups did she do in the month of January?**

    A.   125 push-ups

    B.   279 push-ups

    C. 1,395 push-ups

    D. 1,406 push-ups

23. Mia's favorite sports team has won 0.42 of its games this season. **How can Mia express this decimal as a fraction?**

    A. $\frac{4}{20}$

    B. $\frac{42}{100}$

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

    D. $\frac{42}{10}$

24. Kelly chose a mystery number. Her mystery number is a factor of 38. **Which number could be Kelly's mystery number?**

    A. 2

    B. 3

    C. 4

    D. 8

Session 1—Mathematics (No Calculator)

Use the expression below to answer question 25.

$$(3 + 4) \times 5$$

25. **Which set of counters shows the expression above?**

A.

B.

C.

D.
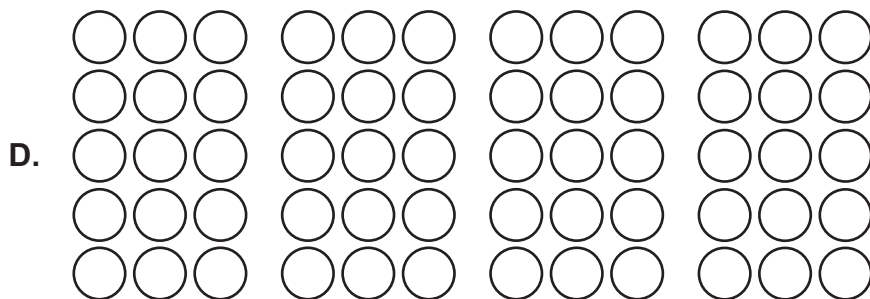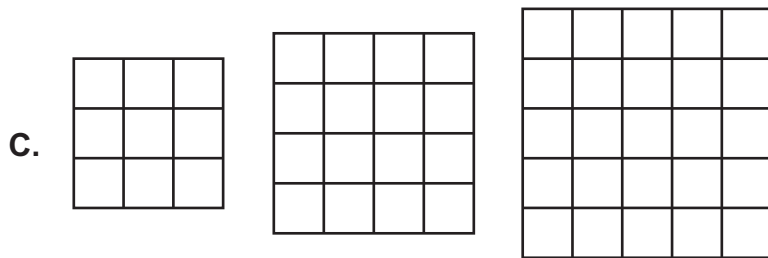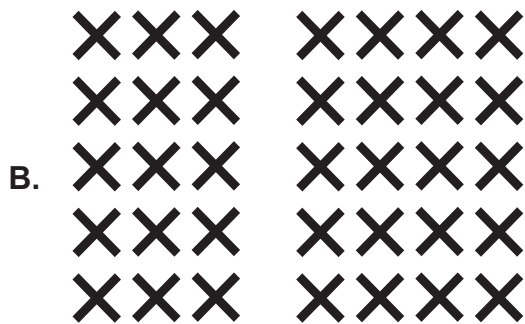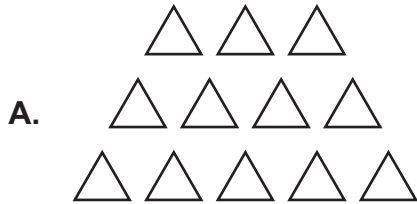
Session 1—Mathematics (No Calculator)

26. The memory in Cindy's computer is $\frac{1}{2}$ full. **Which decimal is equal to how full the memory is in Cindy's computer?**

A. 0.12

B. 0.2

C. 0.5

D. 1.2

27. A parking lot has 22 rows of parking spaces. Each row has 37 parking spaces. Use the number sentence below to find the total number of parking spaces.

$$22 \times 37 = \square$$

How many parking spaces are in the parking lot?

A. 220 parking spaces

B. 614 parking spaces

C. 804 parking spaces

D. 814 parking spaces

28. The bus Mrs. Linney takes to work each day makes 15 stops while she is on it. So far today, the bus has stopped 3 times. The number sentence below can be used to find the remaining number of stops, s, the bus will make while Mrs. Linney is riding.

$$15 = s + 3$$

How many stops, s, are remaining?

A. 5 stops

B. 12 stops

C. 18 stops

D. 45 stops

Session 1—Mathematics (No Calculator)

29. Kanitra needs twenty-five hundredths cup of milk for a recipe. **How could she write the amount of milk she needs as a fraction?**

    A. $\frac{2}{5}$

    B. $\frac{100}{25}$

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

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

30. The 9 sharks at an aquarium are fed a total of 414 pounds of shark food each day. All of the sharks are fed the same amount of food. **How many pounds of food is each shark fed each day?**

    A. 45 pounds
    B. 46 pounds
    C. 51 pounds
    D. 81 pounds

31. A newspaper company sold 179,912 newspapers in one day. **What is this number of newspapers written in word form?**

    A. one hundred seventy-nine thousand twelve
    B. one hundred seventy-nine nine hundred twelve
    C. one hundred seventy thousand nine hundred twelve
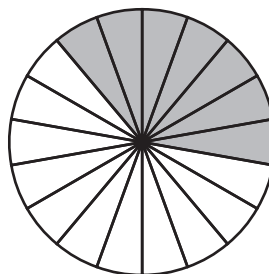   D. one hundred seventy-nine thousand nine hundred twelve

32. Mr. Brown ate $\frac{7}{11}$ of a pizza. **Which diagram is shaded to show the part of the pizza that Mr. Brown ate?**
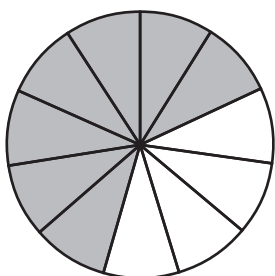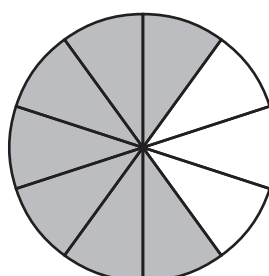
A.
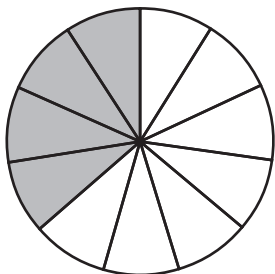
B.

C.

D.

33. Stanley's garage floor is in the shape of a square. It measures 24 feet on each side. **What is the perimeter of Stanley's garage floor?**

A.   96 feet

B.   96 square feet

C. 576 feet

D. 576 square feet

34. A post office delivered eighteen thousand ninety-six pieces of mail in a week. **What is this number of pieces of mail written in expanded form?**

A. 18 + 1,000 + 90 + 6

B. 18 + 1,000 + 900 + 60

C. 10,000 + 8,000 + 90 + 6

D. 10,000 + 8,000 + 900 + 60

35. The average weights of four animals are shown in the table below.

Average Weights of Animals

Animal	Weight (pounds)
Camel	1,133
Giraffe	1,984
Horse	1,192
Moose	1,341

Which list shows the animals in order from <u>greatest</u> to <u>least</u> weight?

A. horse, giraffe, moose, camel

B. giraffe, camel, horse, moose

C. giraffe, moose, horse, camel

D. camel, giraffe, horse, moose

36. Use the picture below to answer question 36.

$\frac{3}{4}$ inch

Which length is equal to the width of a penny, in inches?

A. 0.12

B. 0.34

C. 0.43

D. 0.75

STOP

Mathematics—Sessions 1, 2, and 3
GENERAL INSTRUCTIONS

The Mathematics test has three sessions, two with multiple-choice questions and one with constructed-response questions. You may **not** use a calculator for session 1, but you may use a calculator for sessions 2 and 3.

Session 2—Mathematics (Calculator)

> Write your answers for questions 37 through 60 in the spaces provided on page 37, session 2 answer sheet. Write only one answer for each question. You may work problems in your test booklet or on scratch paper, but you must mark your answer on your answer sheet. You may review your work in this session but do not work on any other session.
>
> You **MAY** use a calculator for this session.

37. The number of people who attended a play is shown in the table below.

People Attending a Play

Night	Number of People
Thursday	2,415
Friday	2,541
Saturday	2,154
Sunday	2,145

On which night did more than 2,300 people but fewer than 2,500 people attend the play?

A. Thursday

B. Friday

C. Saturday

D. Sunday

38. Olivia created the number pattern shown.

$$10, 21, 32, 43, 54, \square$$

**What is the missing number in Olivia's pattern?**

A. 63

B. 65

C. 67

D. 76

Session 2—Mathematics (Calculator)

39. Jamal, Karl, and Asha each had the same size and type of chocolate bar.

- Jamal cut his bar into 8 equal pieces and ate 1 of the pieces.
- Karl cut his bar into 4 equal pieces and ate 1 of the pieces.
- Asha cut her bar into 10 equal pieces and ate 2 of the pieces

Which model shows the greatest amount of the chocolate bar one of the three people ate as the shaded region?

A.

B.

C.

D.
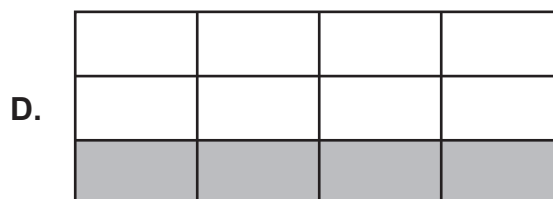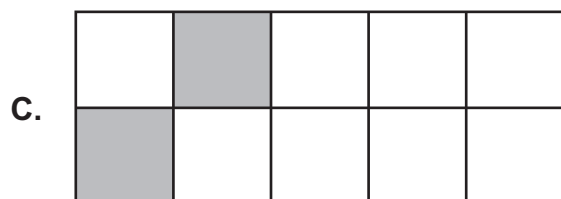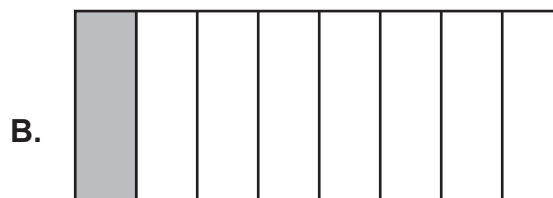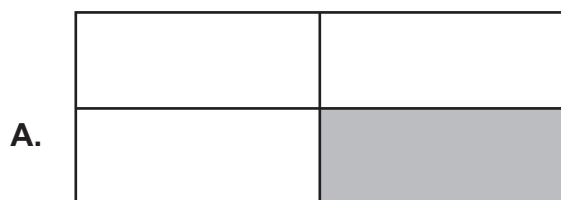
40. Gary has 72 cows on his farm. He has 6 times as many cows as he has horses. The number sentence below can be used to find the number of horses, h, he has.
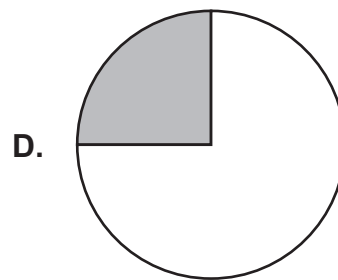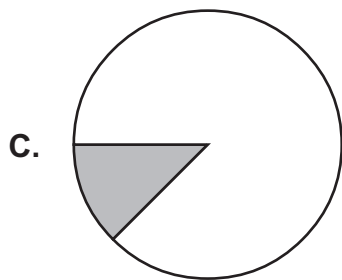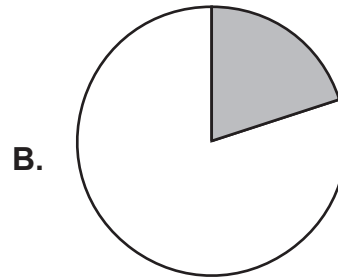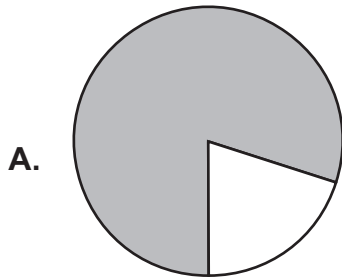
$$72 \div h = 6$$

How many horses, h, does Gary have?

A.   12 horses

B.   66 horses

C.   78 horses

D.   432 horses

41. Claire made a circle graph to show that $\frac{1}{5}$ of the students in her class can whistle. **Which circle graph's shaded area shows the fraction of students in her class that can whistle?**

A.

B.

C.

D.

42. Abby finished a race in 426 seconds. **What is another way to write the time it took Abby to finish the race?**

A. 4 minutes and 26 seconds

B. 7 minutes and 6 seconds

C. 7 minutes and 10 seconds

D. 8 minutes and 52 seconds

43. A store sells 3 oranges and 3 apples in each fruit bag. Jeffery, Kameron, and Sari each bought one fruit bag. The expression below gives the total number of oranges and apples the 3 people bought.

$$3 \times (3 + 3)$$
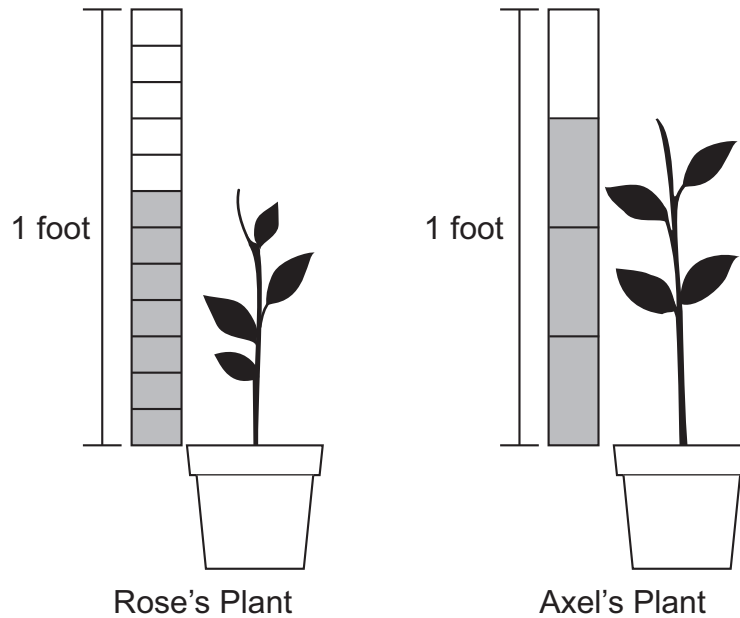
Which drawing shows the total number of oranges and apples Jeffery, Kameron, and Sari bought?

A. ⭕⭕⭕ + ⭕⭕⭕
⭕⭕⭕   ⭕⭕⭕

B. ⭕⭕⭕ + ⭕⭕⭕
⭕⭕⭕   ⭕⭕⭕
⭕⭕⭕   ⭕⭕⭕

C. ⭕⭕⭕ + ⭕⭕⭕ + ⭕⭕⭕

D. ⭕⭕⭕ + ⭕⭕⭕ + ⭕⭕⭕
⭕⭕⭕   ⭕⭕⭕   ⭕⭕⭕
⭕⭕⭕   ⭕⭕⭕   ⭕⭕⭕
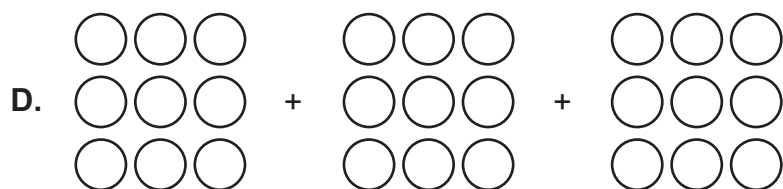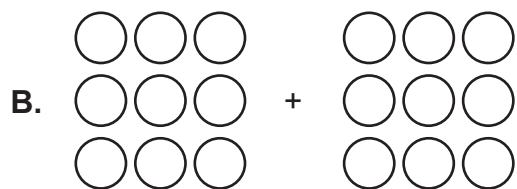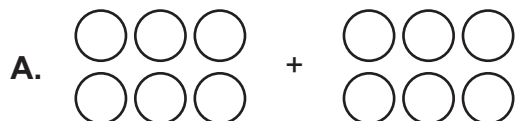
44. In science class, Rose and Axel kept track of the height of their plants. The heights of their plants after 3 weeks are shown in the picture below.

Rose's Plant   Axel's Plant

What fraction of a foot are the heights of Rose's and Axel's plants?

A. Rose's plant is $\frac{7}{5}$ of a foot, and Axel's plant is $\frac{3}{1}$ of a foot.

B. Rose's plant is $\frac{12}{7}$ of a foot, and Axel's plant is $\frac{4}{3}$ of a foot.

C. Rose's plant is $\frac{5}{12}$ of a foot, and Axel's plant is $\frac{1}{4}$ of a foot.

D. Rose's plant is $\frac{7}{12}$ of a foot, and Axel's plant is $\frac{3}{4}$ of a foot.

45. Eliza read four books this year. The number of pages in each book is shown in the table.

Books Eliza Read

Book	Number of Pages
1	311
2	279
3	320
4	292

Which of the books Eliza read has the fewest pages?

A. Book 1

B. Book 2

C. Book 3

D. Book 4

46. Which unit would be best to measure the capacity of a spoon?

A. grams

B. milliliters

C. ounces

D. pounds

Session 2—Mathematics (Calculator)

47. Anika separated her rock collection into three color groups. Of the rocks in her collection, $\frac{4}{9}$ are brown, $\frac{1}{5}$ are pink, and $\frac{1}{3}$ are gray. **Which list shows the fractions of rocks in the three groups in order from <u>least</u> to <u>greatest</u>?**
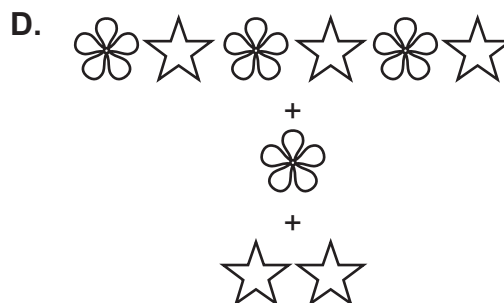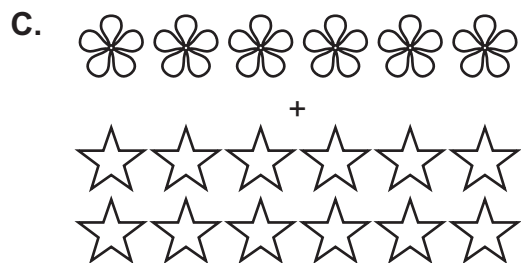
A. $\frac{1}{5}, \frac{4}{9}, \frac{1}{3}$

B. $\frac{4}{9}, \frac{1}{5}, \frac{1}{3}$

**C.** $\frac{1}{5}, \frac{1}{3}, \frac{4}{9}$

D. $\frac{1}{3}, \frac{1}{5}, \frac{4}{9}$

48. Isabel has 6 sheets of stickers. On each sheet is 1 flower sticker and 2 star stickers. The total number of stickers she has on her 6 sheets can be found using the expression 6 × (1 + 2). **Which picture could represent Isabel's stickers?**

A.

B.

C.

D.

49. Samuel brought 18 donuts to a meeting. After an hour, 4 donuts were left. **Which equation can be used to find the number of donuts, *d*, that were eaten?**

    A. $18 \div d = 4$

    B. $4 = d \div 18$

    C. $4 = 18 + d$

    D. $18 - d = 4$

50. Tim's shampoo bottle is about $\frac{2}{3}$ full. **Which picture shows the amount of shampoo in Tim's bottle?**

A.

B.

C.

D.
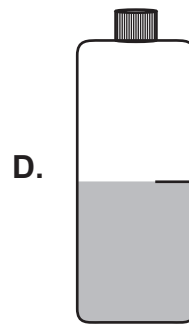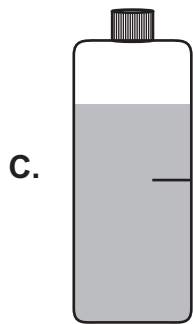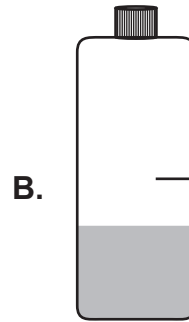
51. The students in Mr. Kenneth's class had a food drive. The same number of cans of food were brought in each day except the first day. The table shows the total number of cans of food brought in through the first 6 days.

Cans of Food Brought In

Day	Total Cans of Food
1	8
2	17
3	26
4	?
5	44
6	53

What was the total number of cans of food brought in through day 4?

A. 32 cans of food

B. 34 cans of food

C. 35 cans of food

D. 36 cans of food

52. A bookstore gave *b* books to each of 42 schools. A total of 210 books were given. **Which equation can be used to find the number of books, *b*, each school was given?**

A. $210 = 42 \times b$

B. $210 = 42 + b$

C. $210 \times b = 42$

D. $210 + b = 42$

53. A drawing of a square checkerboard is shown.

Checkerboard
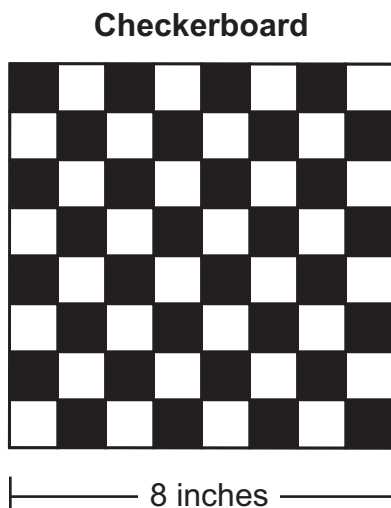
├──── 8 inches ────┤

The checkerboard is made up of small squares. The length of each side of the checkerboard is 8 inches. **What is the perimeter of each black square on the checkerboard?**

A. 1 inch

B. 4 inches

C. 32 inches

D. 64 inches

54. Bentley, Ethan, Noah, and Darrel each have a postcard collection.

- Bentley has 167 postcards.
- Ethan has 176 postcards.
- Noah has 95 postcards.
- Darrel has 258 postcards.

Which list shows the numbers of postcards in order from <u>least</u> to <u>greatest</u>?

A. 167, 176, 95, 258

B. 258, 167, 176, 95

C. 95, 176, 167, 258

D. 95, 167, 176, 258

55. About $\frac{2}{5}$ of the wetlands in the continental United States are in Louisiana. **Which square's shaded area models Louisiana's portion of the wetlands?**

A.

B.

C.

D.
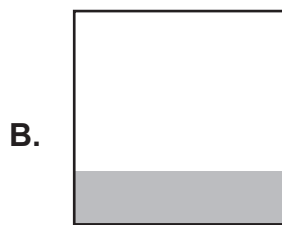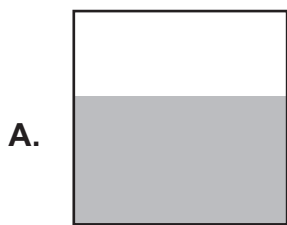
56. A stack of 7 pennies has a height of 1 centimeter. Nick has a stack of pennies with a height of 4 centimeters. **Which equation can be used to find the number of pennies, *n*, in Nick's stack of pennies?**

A. $n = 7 + 4$

B. $n = 7 - 4$

C. $n = 7 \times 4$

D. $n = 7 \div 4$
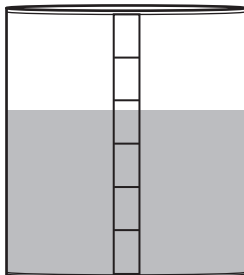
Session 2—Mathematics (Calculator)

57. The population data for some Louisiana towns is shown in the table below.

Population of Louisiana Towns

Town	Population
Chalmette	32,069
Houma	32,910
Ruston	20,831
Sulphur	20,512

Which statement correctly compares data from the table?

A. 20,512 < 32,069 < 32,910

B. 20,512 > 32,069 > 32,910

C. 20,831 < 20,512 < 32,069

D. 20,831 > 20,512 > 32,069

58. The amount of paint remaining in a can after Martin completed his art project is shown by the shaded area below.
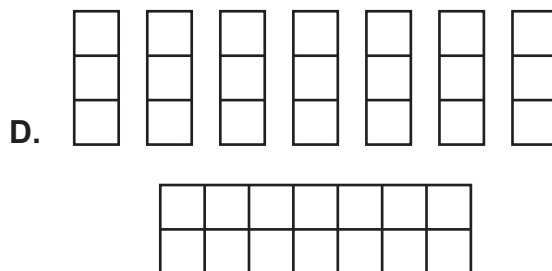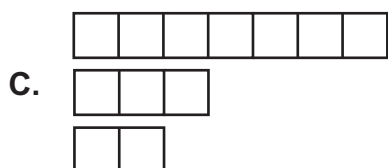

Which is the closest estimate of the fraction of paint remaining?

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

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

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

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

59. There are 7 reading groups in Ms. Henz's class. There are exactly 3 girls and 2 boys in each reading group. The expression 7 × (3 + 2) can be used to find the number of students in her reading groups. **Which model represents the number of students in Ms. Henz's reading groups?**

A.

B.

C.

D.
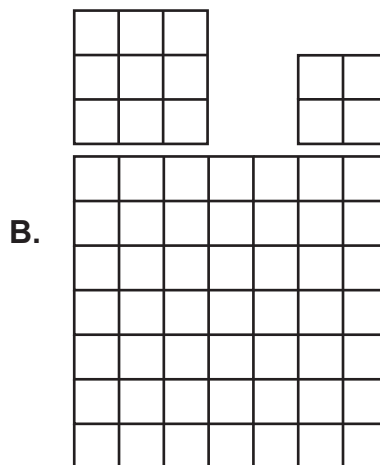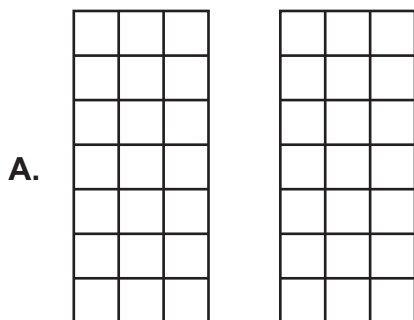
60. Laura collected 60 eggs on her farm. **How many dozen eggs did she collect?**

A.   5 dozen

B.   6 dozen

C. 600 dozen

D. 720 dozen

STOP

Mathematics—Sessions 1, 2, and 3
GENERAL INSTRUCTIONS

The Mathematics test has three sessions, two with multiple-choice questions and one with constructed-response questions. You may **not** use a calculator for session 1, but you may use a calculator for sessions 2 and 3.

Session 3—Mathematics (Calculator)

Write your answers for questions 61 to 63 in the spaces provided below. The questions have more than one part. Show all the work you do to find your answers. Even if you cannot answer all parts, answer as many as you can. You may still get points for answering part of a question. Be sure to write clearly. You may review your work in this session but do not work on any other session.

You MAY use a calculator for this session.

61. A river-rafting tour company has rafts that have room for up to 6 people each.

A. On the first river-raft tour, there are 8 full rafts and 1 raft with 5 people in it. How many people are on the first tour? Show or explain how you found your answer.

B. On the second river-raft tour, there are 26 people. What is the fewest number of rafts needed for this river-raft tour?

C. Using your answer from Part B, describe how many people should be in each of the rafts so the people are as evenly grouped as possible.

62. Lena will use boards similar to the one shown below to build some shelves.

A. Lena can use one entire board to make 4 shelves. Each shelf will be the same shape and size. She needs to make 4 shelves that are each the same shape and size. Draw straight lines on the board above to show where Lena could cut it to make the shelves.

B. On the board below, draw straight lines to show another way Lena could cut the board to make 4 shelves that are each the same shape and size.

C. Lena can also make shelves that are the shape and size of the piece of board shown below.

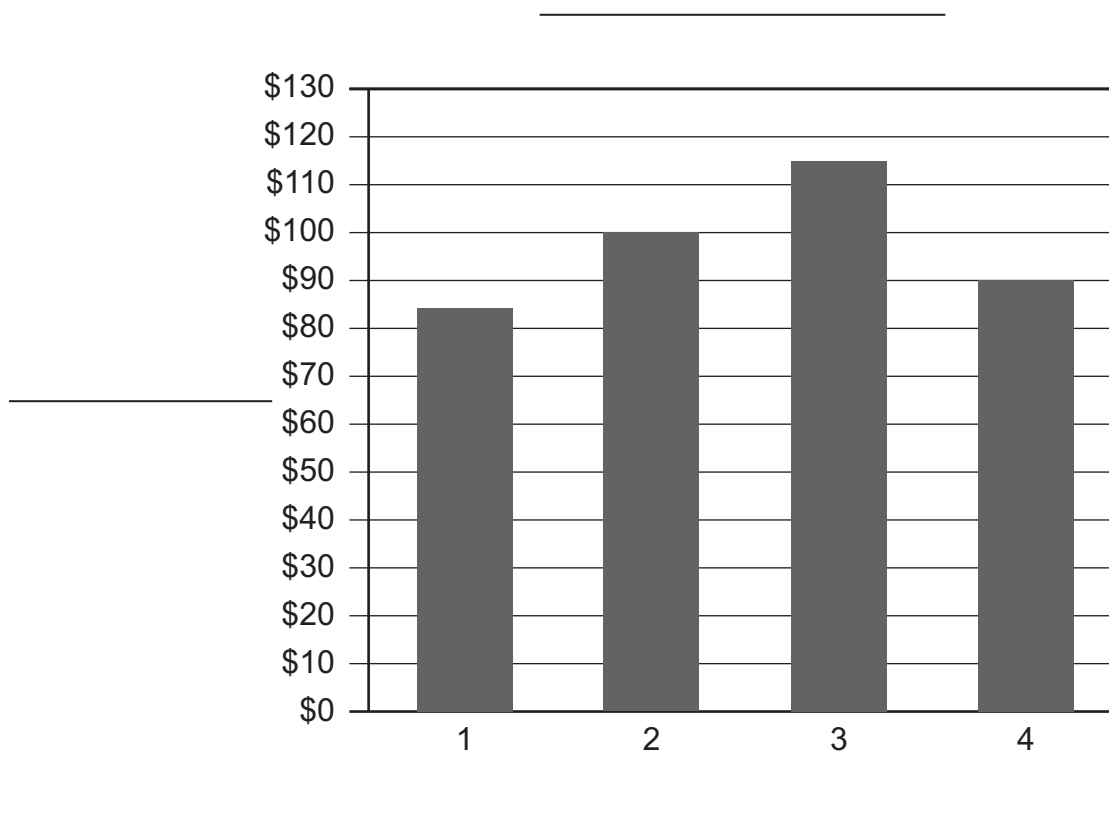How many shelves of this shape and size could she make from the original board?

D. Lena wants to use a new board of a different size. This board is shown below.

What fraction of the original board is this new board?

63. The student council held car washes on four different weekends to raise money. The amount of money they raised on each weekend is shown in the bar graph below.

A. The bar graph is missing labels for each axis. It is also missing a title. Fill in appropriate labels for each axis and a title on the lines provided.

B. How much more money was raised on the third weekend than on the second weekend?

C. The student council realized that they had raised $25 more on the first weekend than they thought they had. On the bar graph, fix the bar for the first weekend to show the correct amount of money they raised.

STOP

Multiple-Choice Answer Sheet

Name: _____

Session 1

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____

11. _____

12. _____

13. _____

14. _____

15. _____

16. _____

17. _____

18. _____

19. _____

20. _____

21. _____

22. _____

23. _____

24. _____

25. _____

26. _____

27. _____

28. _____

29. _____

30. _____

31. _____

32. _____

33. _____

34. _____

35. _____

36. _____

Multiple-Choice Answer Sheet

Name: _____

Session 2

37. _____   49. _____

38. _____   50. _____

39. _____   51. _____

40. _____   52. _____

41. _____   53. _____

42. _____   54. _____

43. _____   55. _____

44. _____   56. _____

45. _____   57. _____

46. _____   58. _____

47. _____   59. _____

48. _____   60. _____

Use the information below to answer questions on the Mathematics test.

1 foot = 12 inches
1 yard = 3 feet
1 pound = 16 ounces

1 meter = 1,000 millimeters
1 meter = 100 centimeters
1 kilometer = 1,000 meters
1 liter = 1,000 milliliters
1 kilogram = 1,000 grams

Rectangle

w

l
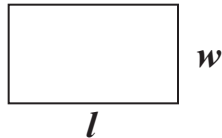
Area = $l \times w$
Perimeter = $l + l + w + w$

1 pint = 2 cups
1 quart = 2 pints
1 gallon = 4 quarts

Multiple-Choice Answer Key

Name: _____

Session 1

1.	**D**		19.	**C**
2.	**B**		20.	**B**
3.	**D**		21.	**C**
4.	**A**		22.	**C**
5.	**C**		23.	**B**
6.	**A**		24.	**A**
7.	**D**		25.	**B**
8.	**A**		26.	**C**
9.	**B**		27.	**D**
10.	**A**		28.	**B**
11.	**C**		29.	**D**
12.	**B**		30.	**B**
13.	**A**		31.	**D**
14.	**C**		32.	**C**
15.	**B**		33.	**A**
16.	**C**		34.	**C**
17.	**B**		35.	**C**
18.	**D**		36.	**D**

Multiple-Choice Answer Key

Name: _____

 Session 2

37.	**A**		49.	**D**
38.	**B**		50.	**A**
39.	**A**		51.	**C**
40.	**A**		52.	**A**
41.	**B**		53.	**B**
42.	**B**		54.	**D**
43.	**B**		55.	**D**
44.	**D**		56.	**C**
45.	**B**		57.	**A**
46.	**B**		58.	**C**
47.	**C**		59.	**D**
48.	**C**		60.	**A**

61.

Scoring Rubric	
4	The student earns 4 points.
3	The student earns 3 points.
2	The student earns 2 points.
1	The student earns 1 point.
0	The student's response is incorrect, irrelevant to the skill or concept being measured, or blank.

Sample Answer:

Part A. There are 53 people on the tour. I did 8×6 for the 8 full rafts and got 48 and then added the 5 people in the other raft. $48 + 5 = 53$.

Part B. 5 rafts

Part C. Four of the rafts should have 5 people each and the other raft should have 6 people.

Points Assigned:

Part A. 2 points
2 points for correctly determining how many people were on the first tour with correct work/explanation.
OR
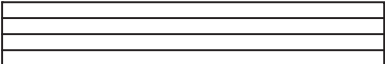1 point for the correct answer with an incorrect or no work/explanation.
OR
1 point for an incorrect answer based on minor arithmetic errors with correct work/explanation.
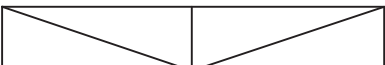
Part B. 1 point
1 point for correctly determining how many rafts were needed for the second tour.

Part C. 1 point
1 point for correctly describing how the 26 people on the second trip should be divided among the 5 rafts.

Note: Scorers should follow along with the student's work throughout. If student makes an error in a previous part and subsequent answers are correct based on the earlier error, student should not be penalized again.

62.

Scoring Rubric	
4	The student earns 4 points.
3	The student earns 3 points.
2	The student earns 2 points.
1	The student earns 1 point.
0	The student's response is incorrect, irrelevant to the skill or concept being measured, or blank.

Sample Answer:

Parts A and B.

And

Part C. 6

Part D. $\frac{2}{3}$ or equivalent.

or equivalent.

Points Assigned:

Part A. 1 point

1 point for correctly dividing the board into 4 approximately equal-sized sections.

Part B. 1 point

1 point for correctly dividing the board (differently than in Part A) into 4 approximately equal-sized sections.

Part C. 1 point

1 point for correctly determining how many of the small pieces can be made from the original board.

Part D. 1 point

1 point for correctly determining what fraction of the original board the new board is.

63.

Scoring Rubric	
4	The student earns 4 points.
3	The student earns 3 points.
2	The student earns 2 points.
1	The student earns 1 point.
0	The student's response is incorrect, irrelevant to the skill or concept being measured, or blank.

Sample Answer:
Part A. **Title:** Money Raised at Car Wash; *x*-axis label: Weekend; *y*-axis label: Amount of Money Raised Part B. $15 Part C. The student should extend the bar for weekend 1 from $85 to $110.

Points Assigned:
Part A. 2 points 2 points for having an appropriate title and appropriate axis labels. **OR** 1 point for having at least one of the axes labeled appropriately. **OR** 1 point for having an appropriate title. Part B. 1 point 1 point for finding the difference between the amount of money earned on weekend 2 and on weekend 3. Range: $14–$16 Part C. 1 point 1 point for extending the bar for weekend 1 from $85 to $110.

Note: Scorers should follow along with the student's work throughout. If student makes an error in a previous part and subsequent answers are correct based on the earlier error, student should not be penalized again.