Louisiana Believes

Grade 4 Mathematics
Practice Test

2013-2014

For further information, contact:
Louisiana Department of Education's Help Desk
1-877-453-2721
Ask LDOE?

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 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 2014. It may help students feel more relaxed when they take the actual test.

★ The Assessment Structure provides information on the overall design of the actual test. The Assessment Structure and example items can be found on the Louisiana Department of Education's website.

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 32) includes 24 multiple-choice questions—a calculator may be used.

- Session 3 (pages 34 to 36) 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 39.

★ Students respond to multiple-choice items using the Answer Sheets on pages 37 and 38 and constructed-response items using pages 34 to 36 of Session 3.

★ The Answer Keys and Scoring Rubrics, used to score student responses, are located on pages 40 to 44.

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 None, No Scaling, or Actual Size depending on the printer you are using. Otherwise, measurement items may not be the correct size, which may impact student responses.

DEPARTMENT of EDUCATION
louisiana Believes

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 37, 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. Amelia's pencil is $\frac{12}{100}$ of a 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

2. There are 7 days in a week. In the month of February, there are 28 days this year. How many times as many days are there in February than are in one week?

   A.   4 times
   B.   7 times
   C.   21 times
   D.   35 times

3. Westview School is buying new basketball uniforms. Each uniform costs $46. The school will buy 12 uniforms. Which equation shows a way to find the total cost of the uniforms?

   A.   (40 × 10) + (6 × 2) = 400 + 12
   B.   (40 × 6) + (10 × 2) = 240 + 20
   C.   (40 × 12) + (6 × 12) = 480 + 72
   D.   (40 × 12) + (60 × 12) = 480 + 720
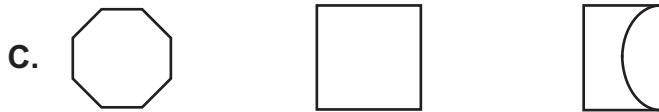
4. Add.

$$46{,}911 + 653{,}092$$

    A.   699,903

    B.   700,003

    C.   913,203

    D. 1,122,202

5. 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

6. For a concert, there are children's tickets and adult tickets for sale. Of the total available tickets, $\frac{37}{100}$ have been sold as adult tickets and $\frac{4}{10}$ as children's tickets. The rest of the tickets have not been sold. What fraction of the total number of tickets for the concert have been sold?

    A. $\dfrac{41}{110}$

    B. $\dfrac{41}{100}$

    C. $\dfrac{77}{110}$

    D. $\dfrac{77}{100}$

Session 1—Mathematics (No Calculator)

7. Tolu has a group of shapes. Each shape in her group has at least one set of parallel sides. Each shape also has at least one set of perpendicular sides. Which group could be Tolu's group of shapes?

A.

B.

C.

D.

8. 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. $n = 7 \div 4$

9. Three friends each played the same computer game. The table below shows the fraction of the game each of them has completed.

Fraction of Computer Game Completed

Name	Fraction Completed
Akira	$\frac{1}{2}$
Connor	$\frac{2}{5}$
Duan	$\frac{2}{3}$

Which of the following statements is true?

A. Akira has completed less of the game than Duan has.

B. Connor has completed more of the game than Duan has.

C. Akira and Connor have completed the same amount of the game.

D. Connor and Duan have completed the same amount of the game.

10. Divide.

$$7,285 \div 4$$

A. 1,801

B. 1,801 R1

C. 1,821

D. 1,821 R1

Session 1—Mathematics (No Calculator)

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

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

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

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

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

12. Subtract.

$$2,396 - 1,709$$
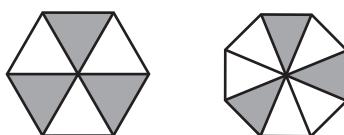
A. 687

B. 693

C. 1,493

D. 1,695

13. Use the models below to answer the question.

Which statement about the models is true?

A. Each shows the same fraction because they are the same size.

B. Each shows a different fraction because they are different shapes.

C. Each shows the same fraction because they both have 3 sections shaded.

D. Each shows a different fraction because they both have 3 shaded sections but a different number of total sections.

Session 1—Mathematics (No Calculator)

14. Lily is going to give away all the pieces of candy in a bag. She can give an equal number of pieces 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

15. The table below shows the number of art pieces owned by a museum.

Art Pieces Owned by a Museum

Type	Number Owned
paintings	3,741
statues	579

How does the value of the 7 in the number of paintings owned by the museum compare to the value of the 7 in the number of statues owned?

    A. It is 10 times greater.

    B. It is 70 times greater.

    C. It is 100 times greater.

    D. It is 700 times greater.

16. 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?
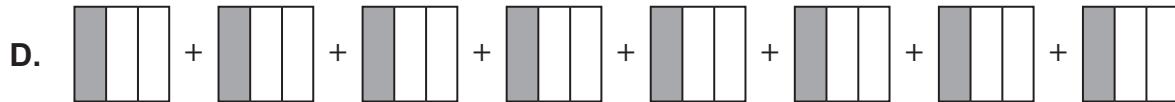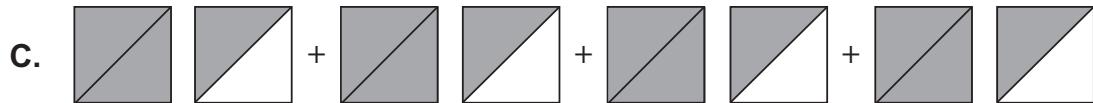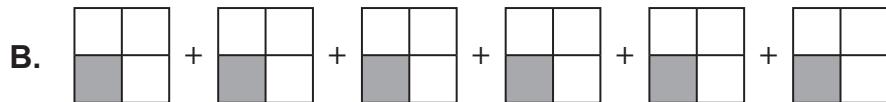
    A. 12 horses

    B. 66 horses

    C. 78 horses

    D. 432 horses

17. Bradley uses $\frac{2}{3}$ of a cup of sugar to make a batch of cookies. The expression below shows how much sugar, in cups, he uses to make 4 batches of cookies.

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

Which fraction model is equal to the number of cups of sugar Bradley uses for all 4 batches of cookies?

A.

B.

C.

D.

18. Mr. Carson drove 1,027 miles in April. He drove 988 miles in May. Mr. Carson used the expression below to find how many more miles he drove in April than in May.

$$1,027 - 988$$

How many more miles did Mr. Carson drive in April than in May?

A.   39 miles

B.   139 miles

C.   161 miles

D. 1,961 miles

Session 1—Mathematics (No Calculator)

19. Aaron's pet hamster weighs $\frac{3}{10}$ of a 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

20. Mary Beth has a bag of 3 different types of candies. The fractions of two types of candies in the bag are listed below.

    • candies that have nuts: $\frac{59}{100}$

    • candies that have caramel: $\frac{2}{10}$

The rest of the candies in the bag have chocolate. What fraction of the candies in Mary Beth's bag have either nuts or caramel?

    A. $\frac{61}{110}$

    B. $\frac{61}{100}$

    C. $\frac{79}{110}$

    D. $\frac{79}{100}$

21. 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)
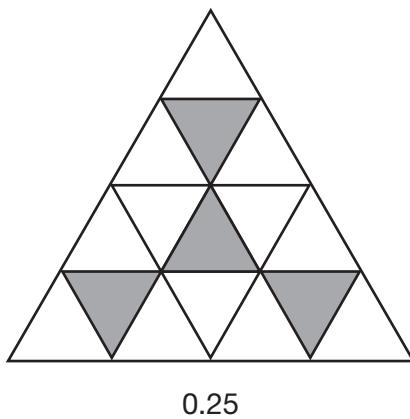
22. There are 31 days in the month of January. Michelle did 45 push-ups each day of the month. She used the expression below to find the number of push-ups she did in January.

$$31 \times 45$$
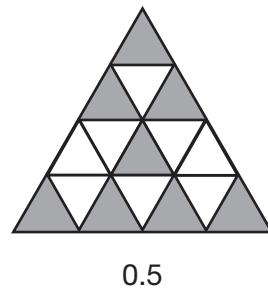
How many push-ups did Michelle do in the month of January?

- **A.** 125 push-ups
- **B.** 279 push-ups
- **C.** 1,395 push-ups
- **D.** 1,406 push-ups

23. Kenitra painted 0.25 of her triangle. Grace painted 0.5 of her triangle. The sections and portions of the triangles that the girls painted are shown in the models below.

Kenitra's Triangle   **Grace's Triangle**
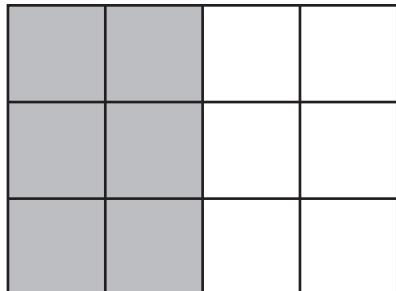
0.25   0.5

Which statement about the triangles that Kenitra and Grace painted is true?

- **A.** Kenitra painted a larger area than Grace because 0.25 > 0.5.
- **B.** Kenitra painted a smaller area than Grace because 0.25 < 0.5.
- **C.** A fair comparison cannot be made because they painted different portions of different sized triangles.
- **D.** Kenitra and Grace painted the same amount of area because the portions of the triangles painted are equal.

24. 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 the total planted flowers could be blooming on Tuesday?

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

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

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

D. $\dfrac{12}{12}$

25. Use the equation below to answer the question.

$$14 \times 3 = 42$$
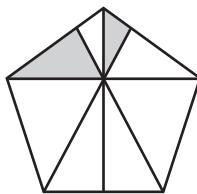
Which statement correctly interprets the expression?

A. 14 is 3 more than 42.

B. 42 is 14 more than 3.

C. 14 is 3 times as many as 42.

D. 42 is 3 times as many as 14.
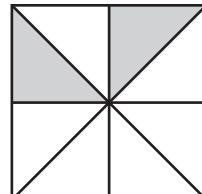
Session 1—Mathematics (No Calculator)

26. Use the fraction models below to answer the question.

Model A   **Model B**

Which pair of statements about the fraction models is true?

A. The fraction models represent different fractions.

This is true because model A is a different shape than model B.

B. The fraction models represent different fractions.

This is true because the sections in model A are not all the same size.

C. The fraction models represent the same fraction.

This is true because both models are made of sections that are in the shape of a triangle.

D. The fraction models represent the same fraction.

This is true because both models have the same total number of sections and the same number of shaded sections.

27. Olivia used the rule "Add 11" to create the number pattern shown below.

10, 21, 32, 43, 54

Which statement about the number pattern is true?

A. The 10th number in the pattern will be an even number.

B. The number pattern will never have two even numbers next to each other.

C. The next two numbers in the pattern will be an even number then an odd number.

D. If the number pattern started with an odd number then the pattern would have only odd numbers in it.
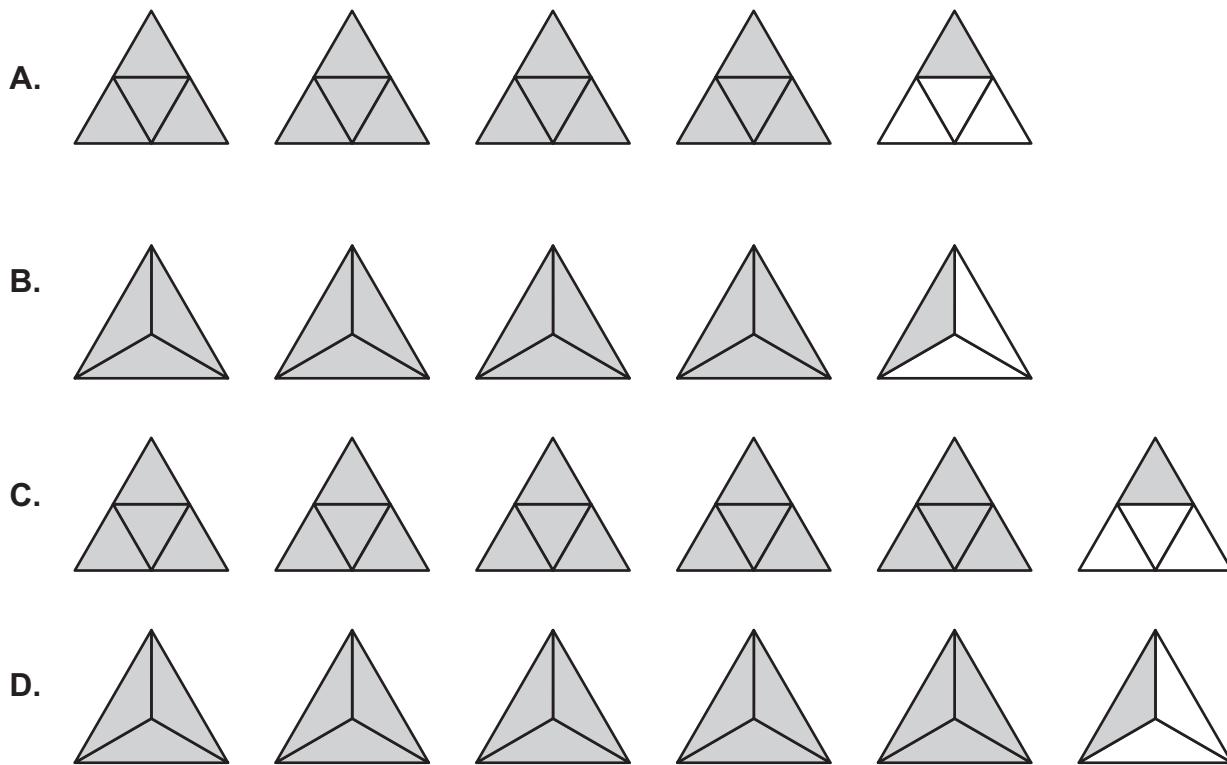
28. A post office delivered eighteen thousand ninety-six pieces of mail in a week. What is this number of pieces of mail written in expanded form?

    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

29. On 6 different days, Sydney read a book for $\frac{4}{5}$ of an hour. What was the total amount of time Sydney read her book on the 6 different days?

    A. $\frac{24}{30}$ of an hour

    B. $\frac{10}{11}$ of an hour

    C. $\frac{10}{5}$ hours

    D. $\frac{24}{5}$ hours

30. Nila has 4 puppies. Each puppy weighs $\frac{4}{3}$ pounds. Nila used the expression below to represent the total weight of her puppies.

$$4 \times \frac{4}{3}$$

Which model also represents the total weight of Nila's 4 puppies?

A.

B.

C.

D.

31. Frankie's baseball team scored 16 runs in a game. Max's baseball team scored 8 runs in a game. Which statement about the number of runs scored by Frankie's and Max's baseball teams is true?

A. Frankie's team scored 2 times as many runs as Max's team because 16 = 2 × 8.

B. Frankie's team scored 2 times as many runs as Max's team because 8 = 2 × 16.

C. Max's team scored 2 times as many runs as Frankie's team because 16 = 2 × 8.

D. Max's team scored 2 times as many runs as Frankie's team because 8 = 2 × 16.

Session 1—Mathematics (No Calculator)

32. 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

33. **Use the number below to answer the question.**

<p style="text-align:center">107,<u>7</u>92</p>

Which statement about the two values of the digit 7 is correct?

    A.   The value of the underlined 7 is 10 times less than the value of the other 7.

    B.   The value of the underlined 7 is 100 times less than the value of the other 7.

    C.   The value of the underlined 7 is 10 times more than the value of the other 7.

    D.   The value of the underlined 7 is 100 times more than the value of the other 7.

34. Collin spent 7 hours volunteering last month. Vanessa spent 21 hours volunteering last month. Which equation correctly shows how many times more hours Vanessa spent volunteering last month than Collin?

    A. $7 \times 3 = 21$

    B. $7 \times 14 = 21$

    C. $21 \times 3 = 63$

    D. $21 \times 7 = 147$

35. **Use the equation below to answer the question.**

$$7 \times 3{,}092 = \square$$

Which expression could be used to correctly fill in the $\square$?

A. $(7 \times 30) \times (7 \times 92)$

B. $(7 \times 30) + (7 \times 90) + (7 \times 2)$

C. $(7 \times 3{,}000) + (7 \times 90) + (7 \times 2)$

D. $(7 \times 3{,}000) + (7 \times 900) + (7 \times 20)$

36. Which statement about $\frac{3}{4}$ and $\frac{9}{10}$ is true?

A. $\frac{3}{4} = \frac{9}{10}$ because $4 - 3 = 1$ and $10 - 9 = 1$.

B. $\frac{3}{4} = \frac{9}{10}$ because $3 + 6 = 9$ and $4 + 6 = 10$.

C. $\frac{3}{4} < \frac{9}{10}$ because 3 is less than 9 and 4 is less than 10.

D. $\frac{3}{4} < \frac{9}{10}$ because $\frac{3}{4}$ is less than $\frac{4}{5}$ and $\frac{9}{10}$ is greater than $\frac{4}{5}$.

STOP

Mathematics—Sessions 1, 2, and 3
GENERAL INSTRUCTIONS

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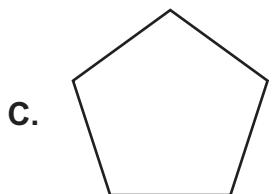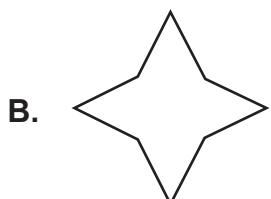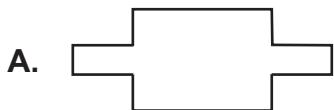
Write your answers for questions 37 through 60 in the spaces provided on page 38, session 2 answer sheet. Write only one answer for each question. You may work problems in your test booklet or on scratch paper, but you must mark your answer on your answer sheet. You may review your work in this session, but do not work on any other session.

You MAY use a calculator for this session.

37. Josie drew a shape that has both parallel sides and perpendicular sides. Which shape could be the one Josie drew?

A.

B.

C.

D.

38. Taylor's jump rope is shown in the diagram below.

Taylor's Jump Rope

4 yards
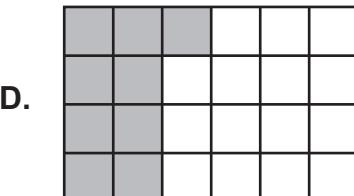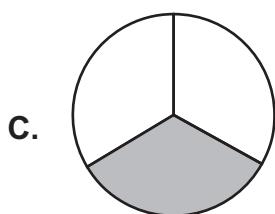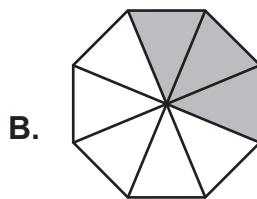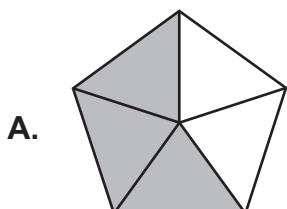
Which measurement is the same as the length of Taylor's jump rope?
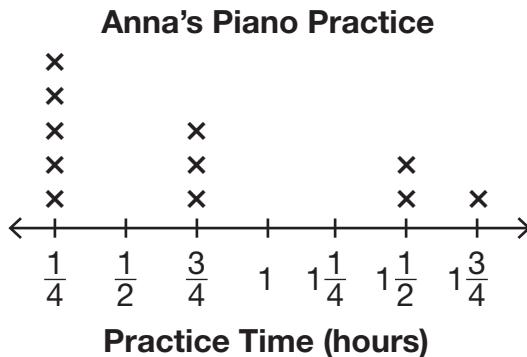
A. 12 feet

B. 12 inches

C. 48 feet

D. 48 inches

39. 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

40. Ed has climbed 9 flights of stairs. He needs to climb a total of 15 flights of stairs. The shaded region of which figure models the number of flights of stairs Ed has climbed out of the total number he needs to climb?

A.

B.

C.

D.

41. The amount of time, in hours, that Anna practiced the piano each day for 11 days is shown on the line plot below.

Anna's Piano Practice

Practice Time (hours)
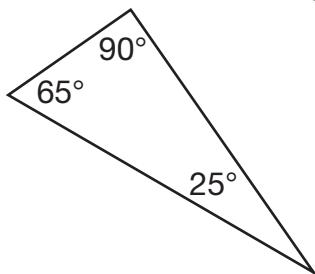
How many hours in total did Anna practice the piano over the 11 days?

A. $4\frac{1}{4}$ hours

B. $6\frac{3}{4}$ hours

C. $7\frac{3}{4}$ hours

D. $8\frac{1}{4}$ hours

42. Stephanie flew 2,448 miles from Los Angeles to New York City. What is the number of miles Stephanie flew rounded to the nearest thousand?

A. 2,000

B. 2,400

C. 2,500

D. 3,000

43. Jacqui is organizing triangles into groups based on the characteristics of each triangle. She has a triangle that needs to be organized into one or more of the groups. The triangle and group characteristics are shown below.

Triangle and Groups

Group	Characteristic
1	acute triangle
2	obtuse triangle
3	right triangle

Which statement about where Jacqui's triangle belongs is true?

A. only group 1 because two of the angles are acute

B. only group 3 because one of the angles measures 90°

C. groups 1 and 3 because the triangle has both a right and an acute angle

D. groups 1 and 2 because the sum of the acute angles is greater than 90°

44. Erin made 12 pints of juice. She drinks 3 cups of juice each day. How many days will Erin take to drink all of the juice she made?

A. 2 days

B. 4 days

C. 8 days

D. 9 days
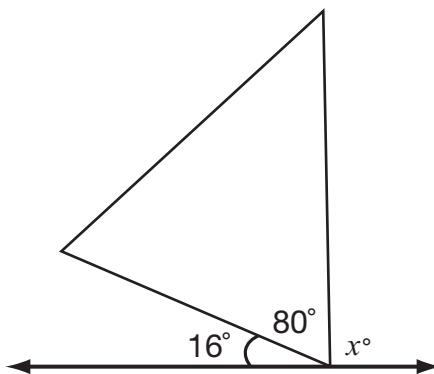
45. Information about what the students in Mr. Paulson's class and in Ms. Hugo's class ate for lunch is listed below.

- In Mr. Paulson's class, 0.5 of the students ate pizza for lunch.
- In Ms. Hugo's class, 0.5 of the students ate hamburgers for lunch.

What information, if any, is needed to correctly compare the 0.5 of Mr. Paulson's class that ate pizza to the 0.5 of Ms. Hugo's class that ate hamburgers?

A. whether the lunches were eaten on the same day

B. the total number of students in each teacher's class

C. nothing because the portions each class ate were the same

D. the total number of pizza slices and hamburgers eaten that day

**46.** A straight line measures 180°. A straight line and a triangle are touching as shown in the figure below.
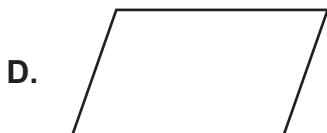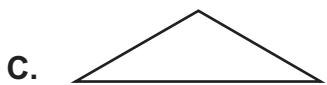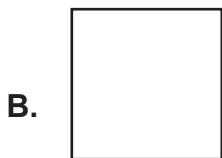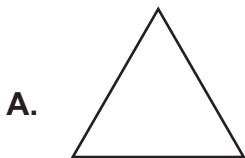
What is the value of *x* in the figure?

A. 64

B. 84

C. 90

D. 96

47. Which shape has the greatest number of obtuse angles?

A.

B.

C.

D.

48. On Saturday Lily was a referee at 3 soccer games. She arrived at the soccer field 15 minutes before the first game. Each game lasted for $1\frac{1}{2}$ hours. There were 5 minutes between each game. Lily left 10 minutes after the last game. How long, in minutes, was Lily at the soccer field?

A. 300 minutes

B. 305 minutes

C. 480 minutes

D. 485 minutes

49. Andy and his sister are going to play a game. They need nickels to play the game. Andy changes all of the money shown below to nickels.
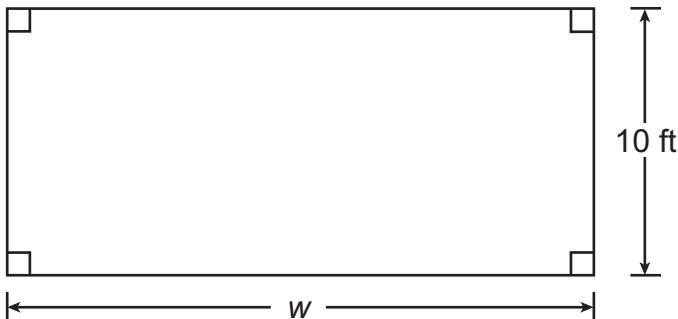

After Andy changes the money to nickels, he still has the same amount of money. He gives half of the nickels to his sister and keeps half to play the game. How many nickels did Andy give his sister?

A. 15 nickels

B. 16 nickels

C. 26 nickels

D. 32 nickels

50. The figure below shows a diagram of a reading room.

Reading Room
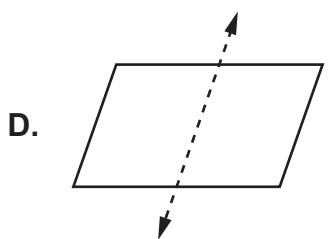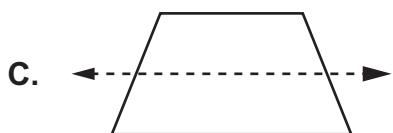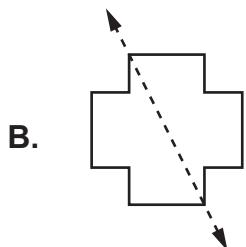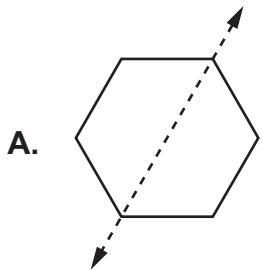
The perimeter of the reading room is 60 feet (ft). What is the width, *w*, of the reading room?

A. 6 ft

B. 12 ft

C. 20 ft

D. 50 ft

51. Raymond drew an angle that measures 3°. Which expression is equivalent to the measure of Raymond's angle?

A. $\frac{1}{3}$ of a circle + $\frac{1}{3}$ of a circle + $\frac{1}{3}$ of a circle

B. $\frac{1}{90}$ of a circle + $\frac{1}{90}$ of a circle + $\frac{1}{90}$ of a circle

C. $\frac{1}{100}$ of a circle + $\frac{1}{100}$ of a circle + $\frac{1}{100}$ of a circle

**D.** $\frac{1}{360}$ of a circle + $\frac{1}{360}$ of a circle + $\frac{1}{360}$ of a circle

52. Which shape shows a line of symmetry?

A.

B.

C.

D.

53. 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**
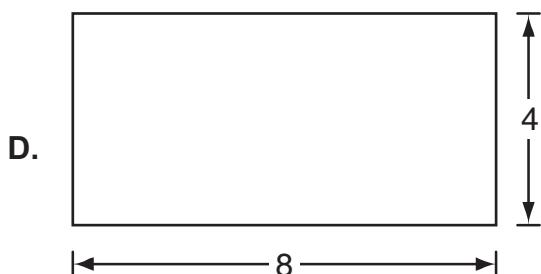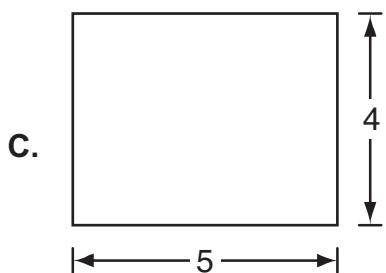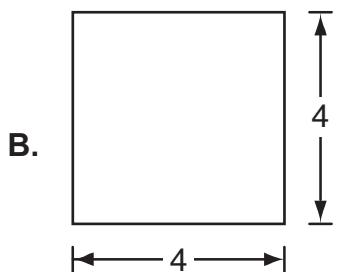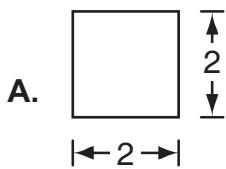
Angle L was created when the last piece of cake was eaten. What type of angle does this appear to be?

A. acute

B. obtuse

C. right

D. straight

54. Jan scored 3 more points in the basketball game than Salah. Cindy scored 22 points, which was twice as many points as Jan. How many points did Salah score?

A. 8

B. 11

C. 14

D. 19

55. Ben has a rectangle. The value of the area of his rectangle is half the value of the perimeter. Which rectangle could be Ben's rectangle?

A.

2

2

B.

4

4

C.

4

5

D.

4

8

56. Rounded to the nearest 10,000, the population of Louisiana was 4,530,000 in 2010. Which number could be the actual population of Louisiana in 2010?

    A. 4,500,321

    B. 4,524,491

    C. 4,533,372

    D. 4,535,343

57. Use your protractor to answer the question below.

F

J   G

H
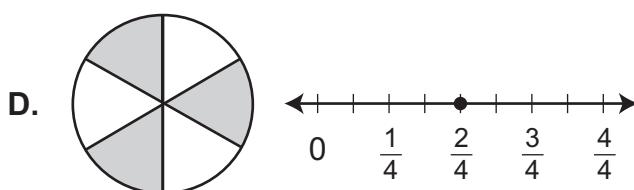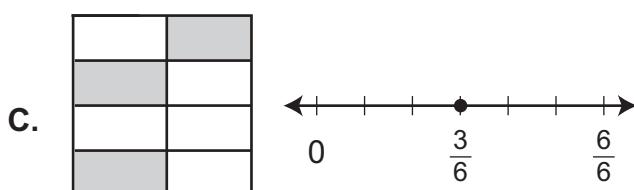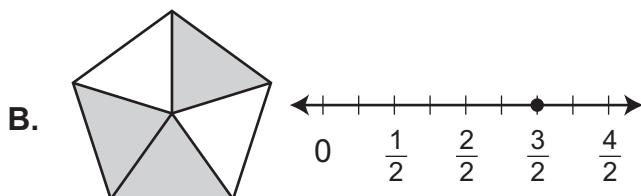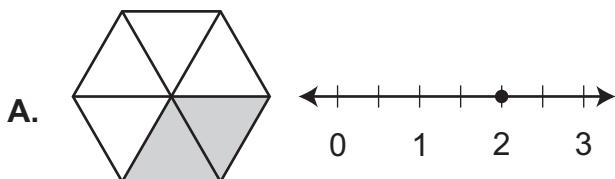
Which measure is **closest** to the measure of angle H?

    A.   30°

    B.   35°

    C. 150°

    D. 155°

**58.** Which model and number line show the same fraction?

A.

B.

C.

D.

59. Which figure has no lines of symmetry?

A.

B.

C.

D.

60. Trilla is designing a sandbox. The floor of the sandbox is shown below.

6 feet

7 feet

What is the area of the floor of Trilla's sandbox?

A. 13 square feet

B. 26 square feet

C. 36 square feet

D. 42 square feet

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 each have room for up to 6 people.

   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. Angie is making bags of trail mix. She buys the ingredients below to put in her trail mix.

- five 16-ounce boxes of raisins
- 4 times as many ounces of nuts as ounces of raisins
- chocolate chips

A. How many ounces of nuts does Angie buy?

B. Angie puts 3 ounces of raisins in each bag of trail mix. She makes as many full bags of trail mix as possible. How many ounces of raisins are **not** used in a full bag of trail mix?

C. Each bag of trail mix Angie makes will have a total of 17 ounces of raisins, nuts, and chocolate chips. She will put 4 times as many ounces of nuts as ounces of raisins into each bag. What is the **least** total amount, in ounces, of chocolate chips Angie should buy? Show or explain how you found your answer.

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
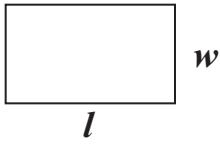
1 hour = 60 minutes

1 minute = 60 seconds

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

Multiple-Choice Answer Key

Name: _____

 Session 2

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

Constructed-Response Scoring Rubrics

⊞ **Session 3**

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 OR demonstrates minimal understanding of the standard being measured.
0	The student's response is incorrect, irrelevant to the skill or standard 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 1 point for correctly determining 53 people on the tour AND 1 point for giving complete and accurate work or explanation of why 53 people is correct 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.
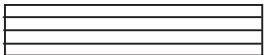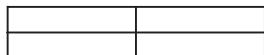
62.

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 OR demonstrates minimal understanding of the standard being measured.
0	The student's response is incorrect, irrelevant to the skill or standard being measured, or blank.

Sample Answer:

Part A and B. (Any two of the following, or equivalent.)

Part C. 6

Part D. $\frac{2}{3}$ 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 OR demonstrates minimal understanding of the standard being measured.
0	The student's response is incorrect, irrelevant to the skill or standard being measured, or blank.

Sample Answer:
Part A. 320 oz. of nuts Part B. 2 oz. Part C. 52 oz.; First I subtracted 3 oz. of raisins from the total of 17 oz., which is a total of 14 oz. for nuts and chocolate chips. Then I multiplied 3 and 4 to get the total ounces of nuts, which is 12 oz. I then subtracted 14 – 12 to find the number of ounces of chocolate chips in each bag, which is 2 oz. To find the number of bags, I divided 80 by 3 (80 oz. of raisins by 3 oz. in each bag) and got 26 r2. So there are 26 bags in total. I then took 26 times 2, for 52 oz. of chocolate chips needed.

Points Assigned:
Part A. 1 point 1 point for the correct number of ounces of nuts Part B. 1 point 1 point for the correct number of ounces of raisins left over Part C. 2 points 1 point for the correct number of ounces of chocolate chips **AND** 1 point for giving complete and accurate work or explanation of why 52 is correct

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