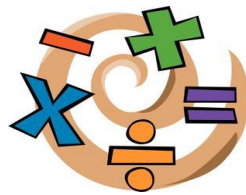


Lindley Sixth Grade Academy



Math



Mock GA Milestones



Below are the formulas you may find useful as you take the test. However, you may find that you do not need to use all of the formulas. You may refer to this formula sheet as often as needed.

Perimeter

The perimeter of a polygon is equal to the sum of the lengths of its sides.

Area

Triangle $A = \frac{1}{2}bh$

Rectangle $A = bh$ or $A = lw$

Surface Area

The total area of the 2-dimensional surfaces that make up a 3-dimensional object.

Volume of Right Rectangular Prism

$V = (\text{length})(\text{width})(\text{height})$ or

$V = (\text{area of base})(\text{height})$

Mean

$$\bar{x} = \frac{x_1 + x_2 + x_3 + \dots + x_n}{n}$$

Interquartile Range

$$IQR = Q_3 - Q_1$$

The difference between the first quartile and third quartile of a set of data.

LSGA
Math Mock
GA Milestone

Section 1

Part A

Section 1, Part A
Use of a calculator is NOT allowed on the Part of the test.



1. Evaluate.
 $0.68 \div 3.4$

- A** 0.02
- B** 0.2
- C** 0.05
- D** 0.5

2. What percent is 3 of 20?

- A** 60%
- B** 20%
- C** 15%
- D** 3%

3. Find the difference.

$$82 - 67.18$$

- A** 25.18
- B** 15.18
- C** 14.92
- D** 14.82

Section 1, Part A
Use of a calculator is NOT allowed on the Part of the test.



4. Evaluate.

$$5 \div \frac{3}{4}$$

A $\frac{3}{20}$

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

C $5\frac{3}{4}$

D $6\frac{2}{3}$

5. What is 70% of 150?

A 150

B 105

C 45

D 75

6. Evaluate.

$$(10 + 43 - 5) \div 24 + 5^2$$

A 65

B 49

C 48

D 27

Section 1, Part A
Use of a calculator is NOT allowed on the Part of the test.



7. What is the area of a square with the sides of 4.3 meters?

- A $\sqrt{4.3} \text{ m}^2$
 - B 8.6 m^2
 - C 17.2 m^2
 - D 18.49 m^2
-

8. Which is the greatest common factor of 20 and 36?

- A 1
 - B 2
 - C 4
 - D 6
-

9. Which is the least common multiple of 6 and 8?

- A 2
 - B 8
 - C 24
 - D 48
-

10. Find the quotient.

$$20 \overline{)5680}$$

- A 204
- B 234
- C 284
- D 2084





This is the end of section 1, Part A

Once you start section 1, Part B you may NOT return to the Section 1, Part A.

You may use a calculator in the next part.

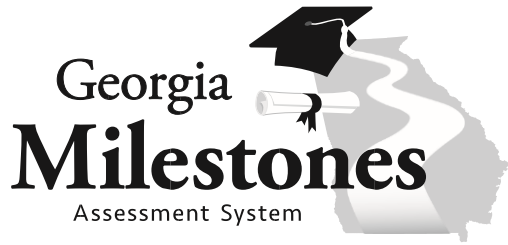
Raise your hand and notify your Examiner or Proctor that you are ready to use your calculator.

Once your Examiner has given you permission to use your calculator, you may go on to Section 1, Part B.

LSGA
Math Mock
GA Milestone

Section 1

Part B



Grade 6 Mathematics Formula Sheet

Below are the formulas you may find useful as you take the test. However, you may find that you do not need to use all of the formulas. You may refer to this formula sheet as often as needed.

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Area

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Rectangle $A = bh$ or $A = lw$

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Volume of Right Rectangular Prism

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$V = (\text{area of base})(\text{height})$

Mean

$$\bar{x} = \frac{x_1 + x_2 + x_3 + \dots + x_n}{n}$$

Interquartile Range

$$IQR = Q_3 - Q_1$$

The difference between the first quartile and third quartile of a set of data.

Section 1, Part B
Use of a calculator is allowed on the part of the test



- 11.** Fran has 18 paperback books and 24 hardcover books. What is the ratio of paperback to the total number of books?
- A.** 3 to 4
 - B.** 4 to 3
 - C.** 3 to 7
 - D.** 7 to 3
-

- 12.** Look at the inequality.

$$4.506 < \underline{\hspace{2cm}}$$

Which will make this inequality true?

- A** 4.5
 - B** 4.6
 - C** 4.05
 - D** 4.46
-
- 13.** Which expression is equivalent to $36 + 24$?

- A** $6 + 4$
- B** $4(6 + 4)$
- C** $4(6 + 6)$
- D** $6(6 + 4)$

Section 1, Part B
Use of a calculator is allowed on the part of the test



- 14.** In a new school building, Cindy painted the walls in 2 classrooms in 5 hours. In the same school building, Rebecca took 2 hours longer than Cindy to paint the wall in 3 classrooms. What is Rebecca's rate in the classrooms per hour?

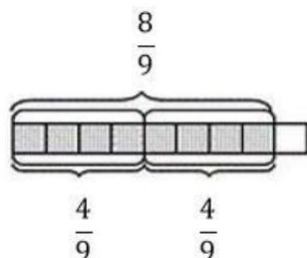
A $\frac{3}{7}$

B $\frac{3}{5}$

C $2\frac{1}{2}$

D $2\frac{1}{3}$

- 15.** Look at the model.



Which division sentence is shown by the model?

A. $\frac{8}{9} \div \frac{4}{9} = 2$

B $\frac{8}{9} \div \frac{1}{9} = \frac{4}{9}$

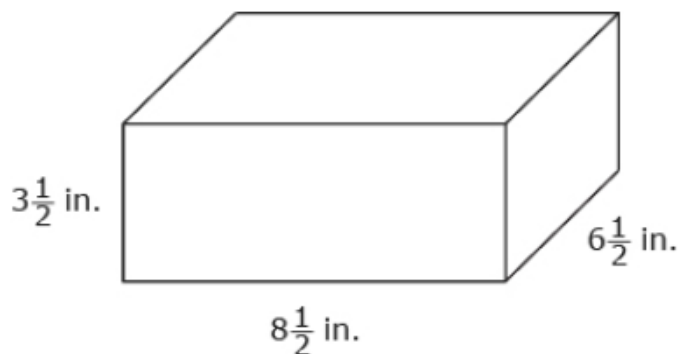
C $\frac{4}{9} \div 2 = \frac{8}{9}$

D $2 \div \frac{4}{9} = \frac{8}{9}$

Section 1, Part B
Use of a calculator is allowed on the part of the test



- 16.** A new bakery is handing out cake samples at the mall. Each cake is in the shape of a rectangular prism with the dimensions shown.



Part A

The bakery will server $\frac{1}{2}$ -inch cubes of cake as samples. How many $\frac{1}{2}$ -inch cubes can be made with one cake? Show your work.

Part B

The sides and the top of one of the cakes are decorated with frosting for a display.

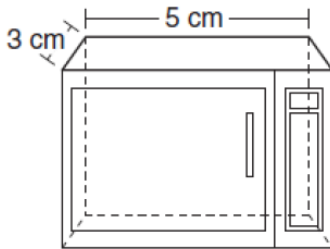
Write an expression that could be used to determine the area of the cake decorated with frosting.

Section 1, Part B
Use of a calculator is allowed on the part of the test



- 17.** In the relationship between hours driven and distance traveled is $y = 45x$, which of the following ordered pairs would be graphed on the line that represents the relationship?
- A** (3, 5)
 - B** (4, 60)
 - C** (4, 180)
 - D** (5, 9)

-
- 18.** The picture below is of the microwave Betty-Jean has in her doll house.



Note: The figure is not drawn to scale

$\text{Volume} = Bh$ $B = \text{Area of the base}$
--

The volume of the microwave 90 cm^3 .

What is the height of the microwave?

- A** 2 cm
- B** 6 cm
- C** 75 cm
- D** 82 cm

Section 1, Part B
Use of a calculator is allowed on the part of the test



- 19.** Jeremy worked 24 hours in one week. The next week, he worked 6 more hours than the previous week. He was paid h dollars per hour. Which expression has a value equal to the amount of money he was paid for two weeks?

- A** $30h$
- B** $30 + h$
- C** $54h$
- D** $54 + h$

-
- 20.** Look at the expression below.

$$\frac{1}{6} \times \frac{1}{6} \times \frac{1}{6}$$

Which expression is equivalent?

- A** $2 \times \frac{1}{6}$
- B** $3 \times \frac{1}{6}$
- C** $\left(\frac{1}{6}\right)^2$
- D** $\left(\frac{1}{6}\right)^3$

Section 1, Part B
Use of a calculator is allowed on the part of the test



21. Use the graph below to answer the following question.

Driving Times

Month	Time
January	3 hours, 23 minutes
February	3 hours, 5 minutes
March	3 hours, 50 minutes
April	3 hours, 52 minutes
May	3 hours, 15 minutes
June	3 hours, 35 minutes

Based on the data in the chart, what is the mean driving time to Keesha's grandparents' house?

- A 3 hours, 23 minutes
- B 3 hours, 26 minutes
- C 3 hours, 30 minutes
- D 3 hours, 35 minutes

-
22. Which situation would result in a value of 0?

- A Melvin has \$50 and pays \$35 for two shirts.
- B Alice sells 14 out of 15 candy bars.
- C Tammy returns a black vase for \$24 and then purchases a red vase for \$24.
- D Bob exercises 45 minutes on Monday and 45 minutes on Wednesday.

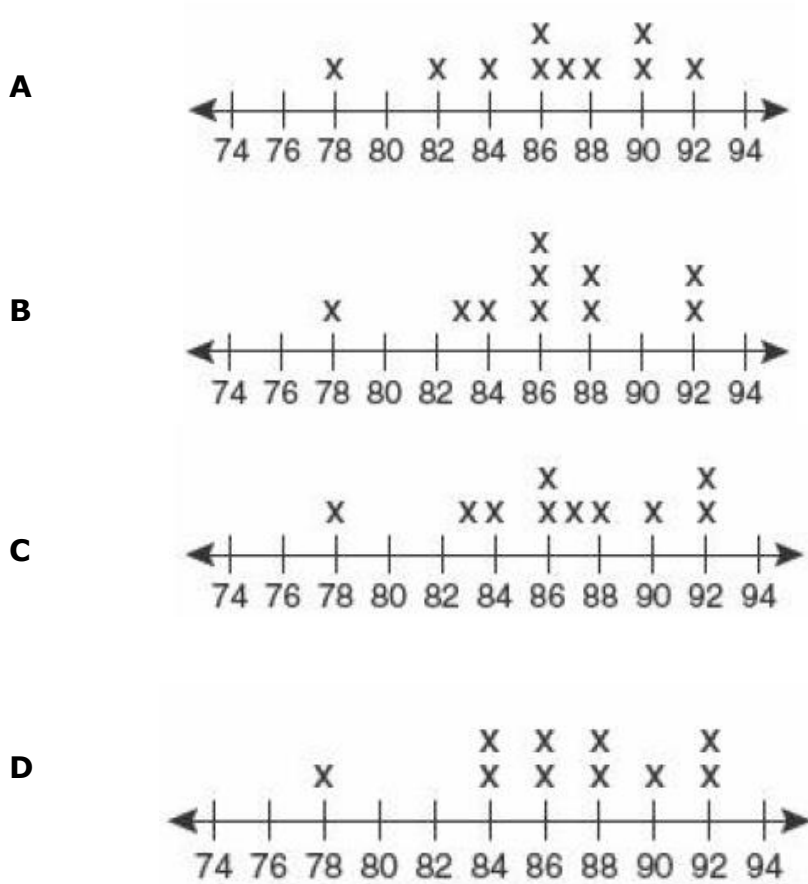
Section 1, Part B
Use of a calculator is allowed on the part of the test



23. Sam listed his scores from math class.

84, 86, 83, 78, 92, 87, 92, 90, 88, 86

Which line plot correctly displays his scores?



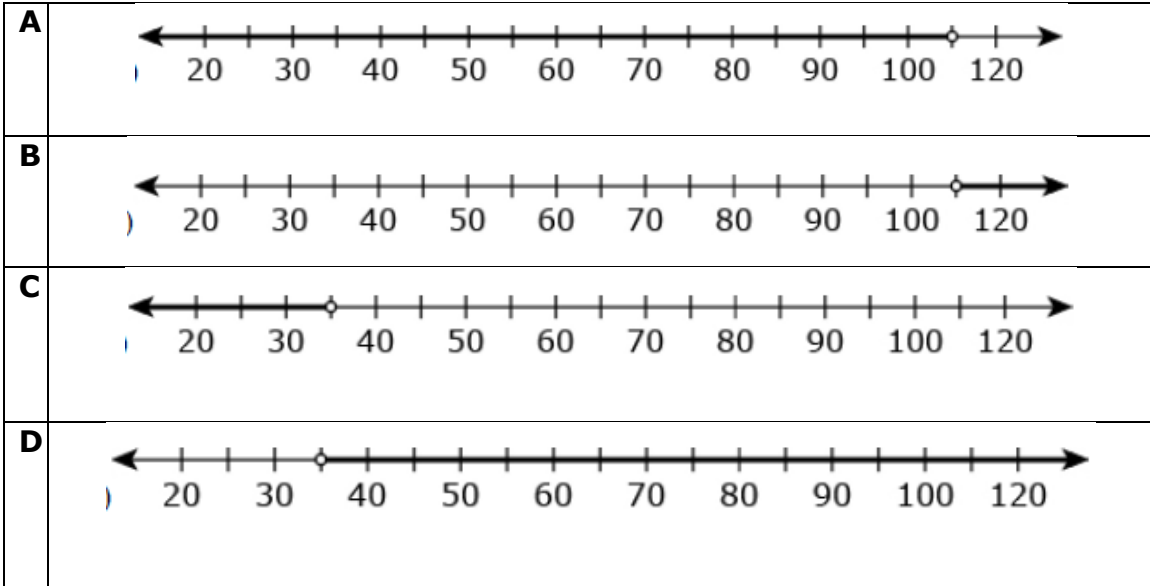
Section 1, Part B
Use of a calculator is allowed on the part of the test



Omar needs more than \$110 to buy a scooter. He has saved \$75.

24. Part A

Which number line best represents all the possible amounts of money Omar will still need to save to buy the scooter?



25. Part B

Which expression correctly represents the amount of money Omar will still need to save to buy the scooter?

- A** $x > 35$
- B** $x < 35$
- C** $x > 110$
- D** $x < 110$

Section 1, Part B
Use of a calculator is allowed on the part of the test



- 26.** Mr. Dahlavi built a raised garden bed in the shape of a rectangular prism. The dimensions of the garden bed are $5\frac{1}{2}$ feet by 2 feet by $2\frac{1}{2}$ feet.

Part A

How many cubic feet of dirt can the garden bed hold?

Part B

Mr. Dahlavi divides his garden into 6 equal sections. How many cubic feet of dirt are in each section?

Part C

Mr. Dahlavi's three children are taking care of part of the garden.

- Samir takes care of 2 sections.
- Rashid takes care of 1 section.
- Aneesa takes care of 2 sections.

What is the ratio of Aneesa's part of the garden to the other children's part of the garden? Explain your answer.



Section 1, Part B
Use of a calculator is allowed on the part of the test



This is the end of section 1, Part B

Raise your hand and notify your Examiner or Proctor that you have completed this section.

Your Examiner will give you instructions.





LSGA Math Mock GA Milestone Section 2

Below are the formulas you may find useful as you take the test. However, you may find that you do not need to use all of the formulas. You may refer to this formula sheet as often as needed.

Perimeter

The perimeter of a polygon is equal to the sum of the lengths of its sides.

Area

Triangle $A = \frac{1}{2}bh$

Rectangle $A = bh$ or $A = lw$

Surface Area

The total area of the 2-dimensional surfaces that make up a 3-dimensional object.

Volume of Right Rectangular Prism

$V = (\text{length})(\text{width})(\text{height})$ or
 $V = (\text{area of base})(\text{height})$

Mean

$$\bar{x} = \frac{x_1 + x_2 + x_3 + \dots + x_n}{n}$$

Interquartile Range

$$IQR = Q_3 - Q_1$$

The difference between the first quartile and third quartile of a set of data.



Section 2
Use of a calculator is allowed on the part of the test

- 27.** A tomato sauce recipe uses 96 ounces of crushed tomatoes.

How many pints of crushed tomatoes are needed to make the tomato sauce?
(32 ounces = 2 pints)

- A** 2 pints
- B** 3 pints
- C** 4 pints
- D** 6 pints

-
- 28.** Otto has 24 purple beads and 42 white beads to use for a pattern. He decided to find the greatest common factor of 24 and 42 to help him choose what pattern to use.

Which expression used the greatest common factor to represent the total number of purple and white beads Otto has?

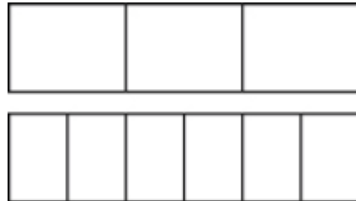
- A** $6(4 + 7)$.
- B** $2(12 + 21)$
- C** $6(18 + 36)$
- D** $8(3 + 42)$



Section 2
Use of a calculator is allowed on the part of the test

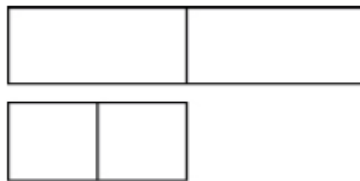
29. Jaime need $\frac{1}{6}$ cup of orange juice for a punch recipe. He has $\frac{2}{3}$ cup of orange juice. Which fraction model and equation could be used to find how many batches of punch Jamie could make?

A



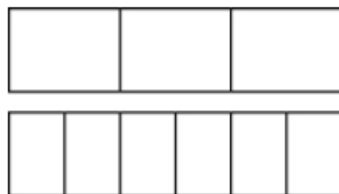
$$\frac{2}{3} \div \frac{1}{6} = 4$$

B



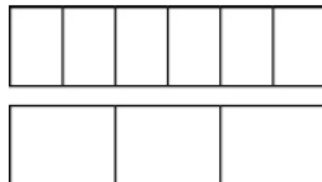
$$\frac{2}{3} \div \frac{1}{6} = 2$$

C



$$\frac{2}{3} \div \frac{1}{6} = \frac{1}{9}$$

D



$$\frac{1}{6} \div \frac{2}{3} = \frac{1}{4}$$

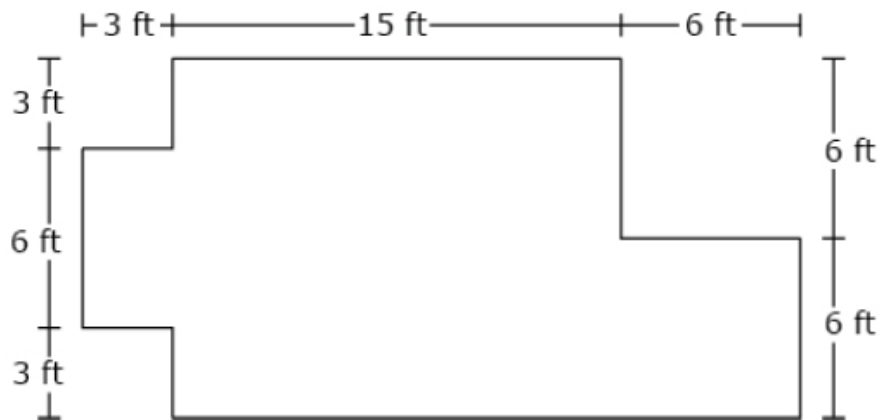


Section 2
Use of a calculator is allowed on the part of the test

30. Which expression is equivalent to $2 + 2m + m + 6 + m$?

- A** $2(m + 3)$
- B** $4(2 + m)$
- C** $8 + 2m$
- D** $12m$

31. The diagram shows a top view of a concrete foundation for a tool shed. All of the angles are right angles and the dimensions are in feet.



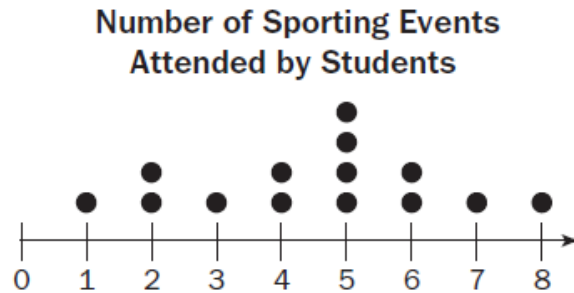
What is the area of the foundation?

- A** 234 square feet
- B** 252 square feet
- C** 270 square feet
- D** 288 square feet



Section 2
Use of a calculator is allowed on the part of the test

- 32.** The dot plot shows the number of times 14 students have attended a sporting event.



What is the median of the data set?

- A** 1
 - B** 4
 - C** 5
 - D** 7
-
- 33.** Brian drove 3680 miles last year. He took a total of 20 trips. What is the average length, in miles, of one of his trips?
- A** 134
 - B** 184
 - C** 3660
 - D** 3680



Section 2
Use of a calculator is allowed on the part of the test

- 34.** Faith paid \$25.10 for a newspaper ad. The newspaper charged \$5.02 for 3 lines of print.

How many lines was the ad?

- A** 5 lines of print
- B** 15 lines of print
- C** 25 lines of print
- D** 75 lines of print

-
- 35.** Betty and John were both trying to solve the equation $4x = 12$. Betty multiplied both sides of the equation by the reciprocal of 4. John divided both sides of the equation by 4. Who solved the equation correctly?

- A** Betty
- B** John
- C** both
- D** neither



Section 2
Use of a calculator is allowed on the part of the test

36. The chart below shows the heights of 13 players on a women's basketball team.

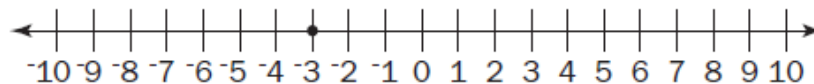
Basketball Team

Player	Height
1	5 ft. 4 in.
2	5 ft. 6 in.
3	5 ft. 7 in.
4	5 ft. 7 in.
5	5 ft. 7 in.
6	5 ft. 9 in.
7	5 ft. 9 in.
8	5 ft. 10 in.
9	5 ft. 11 in.
10	5 ft. 11 in.
11	6 ft.
12	6 ft. 1 in.
13	6 ft. 2 in.

If a player whose height is 6 feet 6 inches joined the team, which of the following statistical measures of players' heights would **not** change?

- A mean
- B median
- C mode
- D range

-
37. Erin plotted the opposite of -3 on the number line.



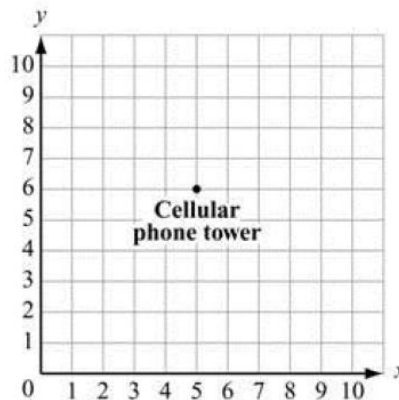
Explain the error Erin made.



Section 2
Use of a calculator is allowed on the part of the test

- 38.** A right rectangular prism has edge lengths of 1 inch, $\frac{1}{4}$ inch, and $\frac{3}{4}$ inch. How many $\frac{1}{4}$ inch cubes will it take to create a prism that is equivalent in size? (G.2)
- A** 16
B 12
C 8
D 4

-
- 39.** The location of a cellular phone tower is shown on this coordinate plane. (NS.6b)



Each unit represents 0.5 mile.

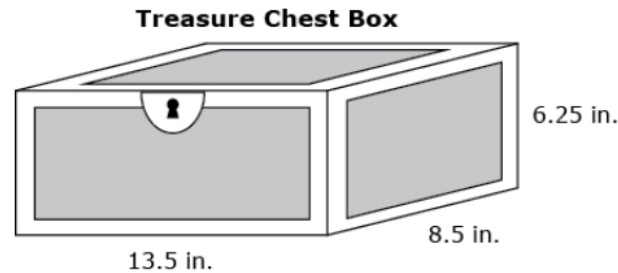
The phone company is building another tower 2.5 miles away. At which point could the new cellular phone tower be located?

- A** (3, 5)
B (7, 3)
C (8, 2)
D (9, 4)



Section 2
Use of a calculator is allowed on the part of the test

- 40.** Zahra needs to paint the top and the sides of a treasure chest box. She does not need to paint the bottom of the treasure chest box. The dimensions of the treasure chest box are in shown in inches.



What is the total surface area that Zahra needs to paint? Round your answer to the nearest whole number.

- A** 287 in²
 - B** 390 in²
 - C** 505 in²
 - D** 717 in²
-
- 41.** Judy spent \$4.55 on oranges that cost \$0.65 each. If x = the number of oranges, what equation would be determine how many oranges Judy purchased?

- A** $\$0.65x = \4.55
- B** $\$4.55x = \0.65
- C** $\frac{\$0.65}{\$4.55} = x$
- D** $\$4.55 - \0.65



Section 2
Use of a calculator is allowed on the part of the test

- 42.** At a wedding reception attended by 200 people, the youngest person was 2 years old and the range of ages was 94.

How old was the oldest person at the wedding reception?

- A** 92
- B** 94
- C** 96
- D** 200

-
- 43.** Ms. Conerly put the following problem on the board.

$$\frac{3}{6} \div \frac{1}{4}$$

Part A

Find the quotient

Part B

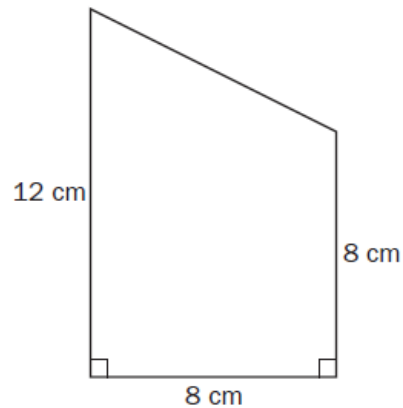
Explain how you found your answer.



Section 2
Use of a calculator is allowed on the part of the test

44. Which of these questions is a statistical question?
- A "Where does the current U.S. president live?"
 - B "What size coat am I wearing now?"
 - C "Did Jack wear sneakers or boots to school today?"
 - D "What size shirt do the kids in the school wear?"

-
45. Mitch drew the quadrilateral shown below.



What is the area of the quadrilateral?

- A 28 cm^2
- B 80 cm^2
- C 96 cm^2
- D 128 cm^2

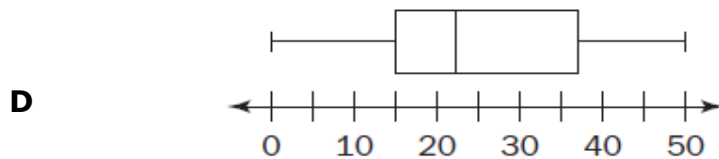
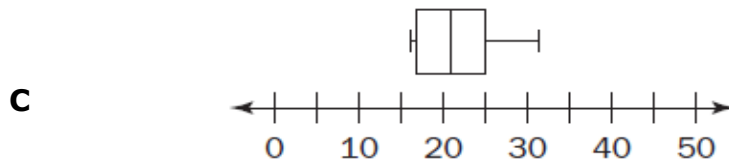
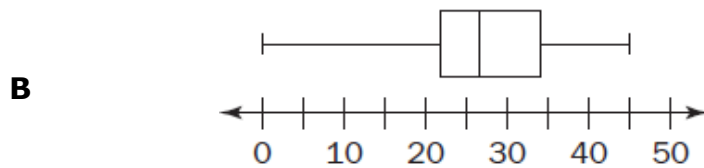
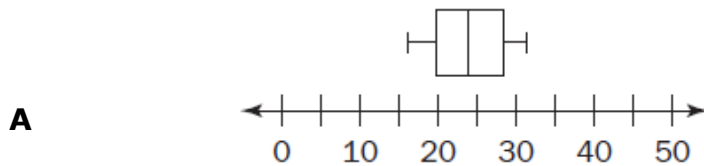


Section 2
Use of a calculator is allowed on the part of the test

- 46.** This list shows the number of math problems solved each week by a sixth-grade student.

23, 19, 26, 20, 31, 16, 20, 29, 27

Which box plot BEST represents this list?





Section 2
Use of a calculator is allowed on the part of the test

- 47.** A bike shop needs to order new wheels for 10 tricycles. Hannah orders 10 new wheels. As this illustration shows, each tricycle has 3 wheels.



Part A

Did Hannah order the correct number of wheels? Explain your answer

Part B

The equation $3x = y$ can be used to calculate the number of wheels to order for any number of tricycles. What does each part of the equation represent?

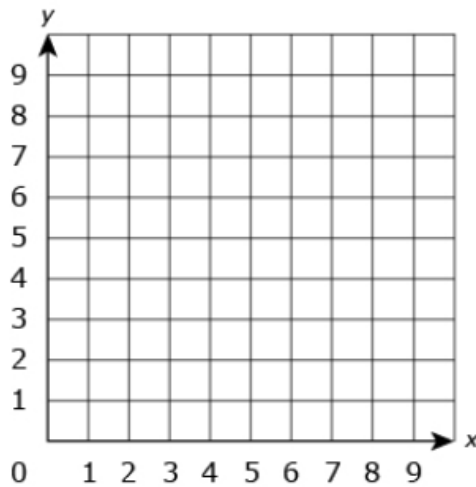
Part C

How many wheels should be ordered for 15 tricycles? Explain how you used the equation from Part B to get your answer.



Section 2
Use of a calculator is allowed on the part of the test

- 48.** A rectangle has a vertex at $(2, 5)$ and $(2, 9)$. The rectangle has a length of 6 units.



Which pair of coordinates could be the other two vertices to create this rectangle?

- A** $(2, 5), (2, 9)$
 - B** $(5, 7), (9, 7)$
 - C** $(5, 8), (9, 8)$
 - D** $(8, 5), (8, 9)$
-
- 49.** A movie production company wants to determine the types of movies that Georgia students like to watch. Which is the BEST survey method?
- A** a survey of every student at a local school
 - B** a survey of students at a local movie theater
 - C** a survey of students at different shopping malls
 - D** a survey of students randomly generated from a computerized list

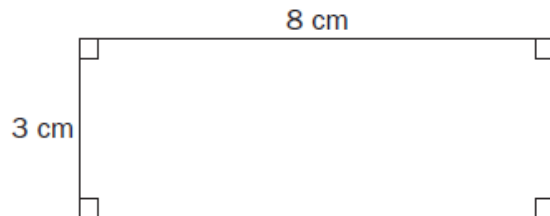


Section 2
Use of a calculator is allowed on the part of the test

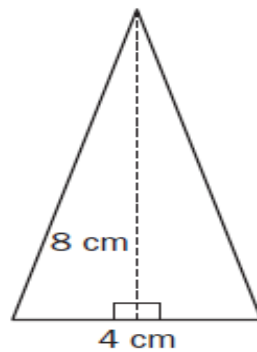
50. Mia found the area of a polygon. The area is 32cm^2 .

Which of these polygons has an area of 32 cm^2 ?

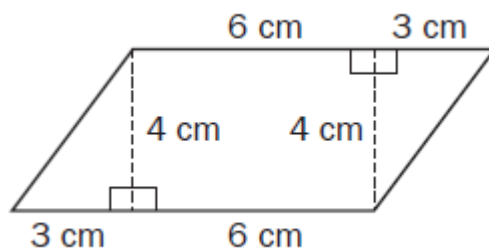
A



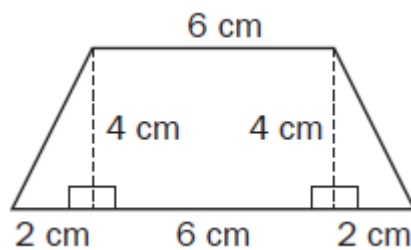
B



C



D





This is the end LSGA Math Mock Milestone

**Raise your hand and notify your Examiner or
Proctor that you have completed the test.**

**Your Examiner will give you instructions on the
next steps.**