

Student Name: _____

Ohio Achievement Tests



Mathematics Student Test Booklet

Large Print
May 2008

This test was originally administered to students in May 2008.

Not all items from the May 2008 administration will be released in this document. According to Ohio Revised Code (ORC) 3301.07.11:4(b) . . . not less than forty percent of the questions on the test that are used to compute a student's score shall be a public record. The department (of education) shall determine which questions will be needed for reuse on a future test and those questions shall not be public records and shall be redacted from the test prior to its release as public record.

This publicly released material is appropriate for use by Ohio teachers in instructional settings. This test is aligned with Ohio's Academic Content Standards for Mathematics.

The Ohio Department of Education does not discriminate on the basis of race, color, national origin, sex, religion, age, or disability in employment or the provision of services.

Directions:

Today you will be taking the Ohio Grade 5 Mathematics Achievement Test. Three different types of questions appear on this test: multiple choice, short answer and extended response.

There are several important things to remember:

1. Read each question carefully. Think about what is being asked. Look carefully at graphs or diagrams because they will help you understand the question.
2. You may use the blank areas of your Student Test Booklet to solve problems. You may also use the optional grid paper in the answer document to solve problems.
3. For short-answer and extended-response questions, use a pencil to write your answers neatly and clearly in the gridded space provided in the answer document. Any answers you write in the Student Test Booklet will not be scored.

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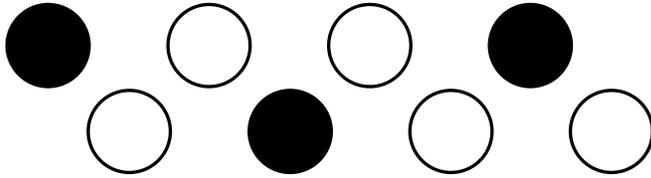
Mathematics

4. Short-answer questions are worth two points. Extended-response questions are worth four points. Point values are printed near each question in your Student Test Booklet. The amount of gridded space provided for your answers is the same for all two- and four-point questions.
5. For multiple-choice questions, shade in the circle next to your choice in the answer document for the test question. Mark only one choice for each question. Darken completely the circles on the answer document. If you change an answer, make sure that you erase your old answer completely.
6. Do not spend too much time on one question. Go on to the next question and return to the question skipped after answering the remaining questions.
7. You may use a protractor on this test.
8. Check over your work when you are finished.

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Mathematics

1. This diagram represents Melvin's marble collection.



What is the ratio of black marbles to total marbles?

- A. 3:5
 - B. 3:8
 - C. 5:3
 - D. 8:3
2. Dan wraps a box with paper.

What should Dan measure to determine the amount of paper he needs to wrap the box?

- A. circumference
- B. perimeter
- C. surface area
- D. volume



3. Paul walked 3 miles per hour while on a 4-hour hike.

Which table shows the total number of miles that Paul has walked at the end of each hour?

A.

Hour	Miles
1	1
2	2
3	3
4	4

B.

Hour	Miles
1	3
2	6
3	9
4	12

C.

Hour	Miles
1	3
2	9
3	27
4	81

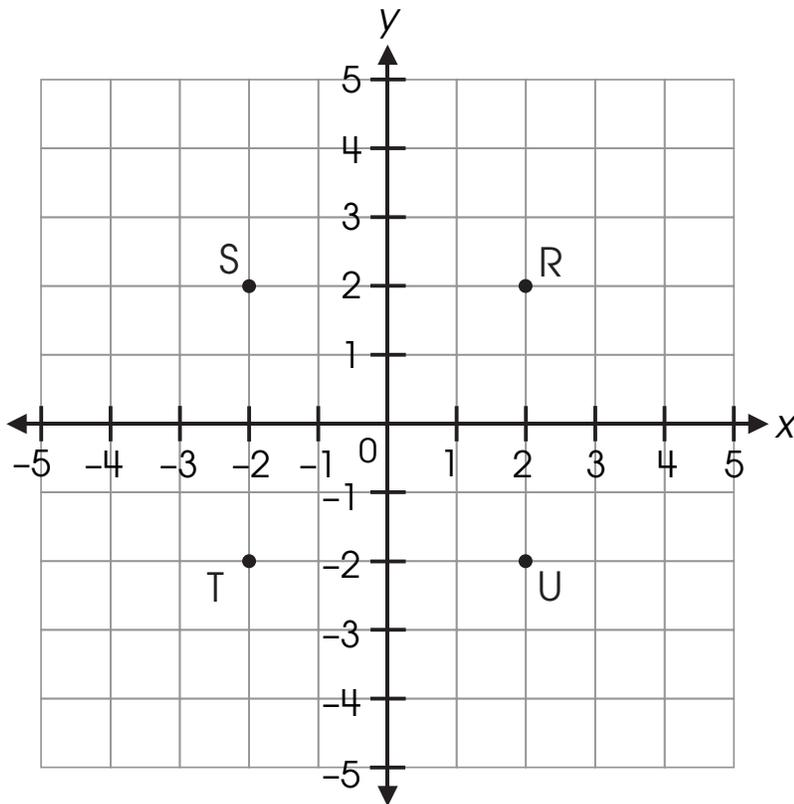
D.

Hour	Miles
1	1
2	3
3	6
4	9

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Mathematics

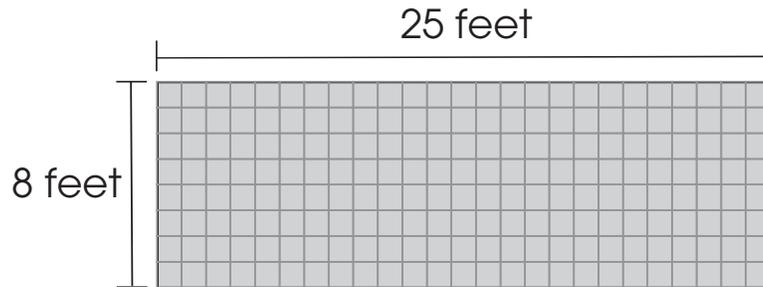
4. Points R, S, T, and U are plotted on the grid as shown.



Which point is located at $(2, -2)$?

- A. point R
- B. point S
- C. point T
- D. point U

5. A rectangle is shown.



In your **Answer Document**, find the area and the perimeter of the rectangle. Show your work. Label the area and the perimeter with the appropriate units. (2 points)

Items 6–7 have not been slated for public release
in 2008.

8. Simon used a rule to create the input-output table shown.

Input (x)	Output (y)
1	5
2	9
3	13
4	17

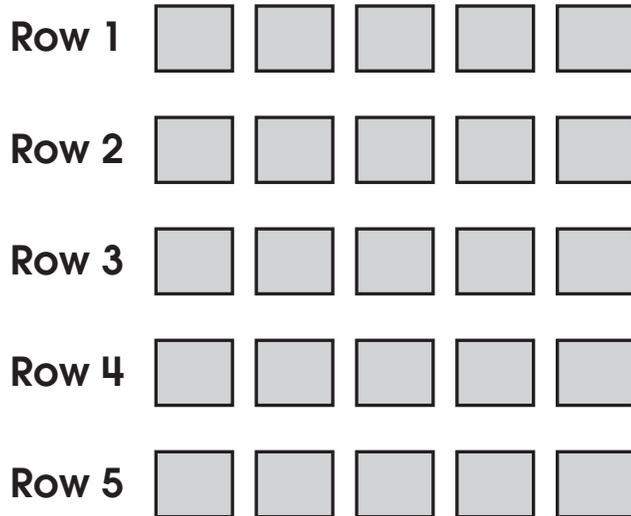
Which rule did Simon use to make the table?

- A. $y = x + 4$
- B. $y = x + 10$
- C. $y = 3x + 5$
- D. $y = 4x + 1$

Item 9 has not been slated for public release
in 2008.



10. Mrs. Garner's classroom had 25 desks. They were arranged in 5 rows that each contained 5 desks.



In your **Answer Document**, write the fraction of the desks that are in Row 1. Write this fraction as a percent. Show or explain your work.

Another classroom has between 15 and 22 desks with the same number of desks in each row. Row 1 has 25% of the desks in this classroom. Draw an arrangement of the desks in this classroom. How many desks are in Row 1? (4 points)

Item 11 has not been slated for public release
in 2008.

12. Tina helps raise the flag outside her school every morning.

Which unit is appropriate for describing the height of the flag after Tina raises it?

- A. meters
- B. cubic feet
- C. square feet
- D. square meters

On the May 2008 Grade 5 Mathematics Achievement Test, items 13–18 are field-test items, which are not released.

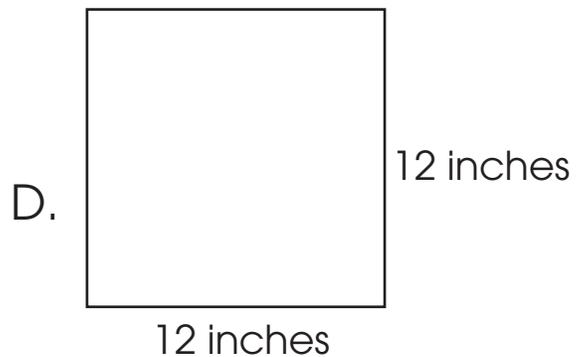
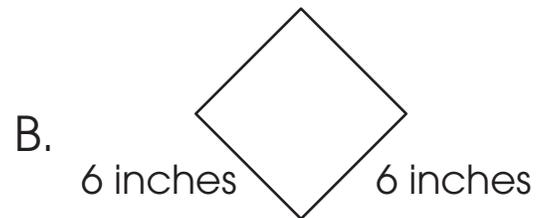
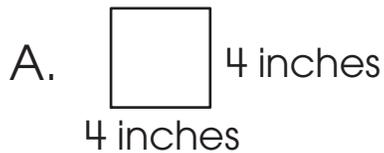


19. Jay made a cardboard sign to announce an after-school picnic.



He is looking for a congruent piece of cardboard so that he can make a second sign.

Which piece of cardboard could Jay use?



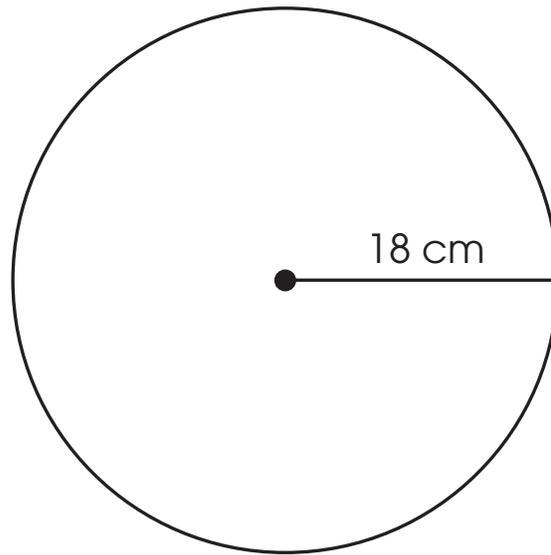
Items 20–21 have not been slated for public release
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22. A circle is shown.

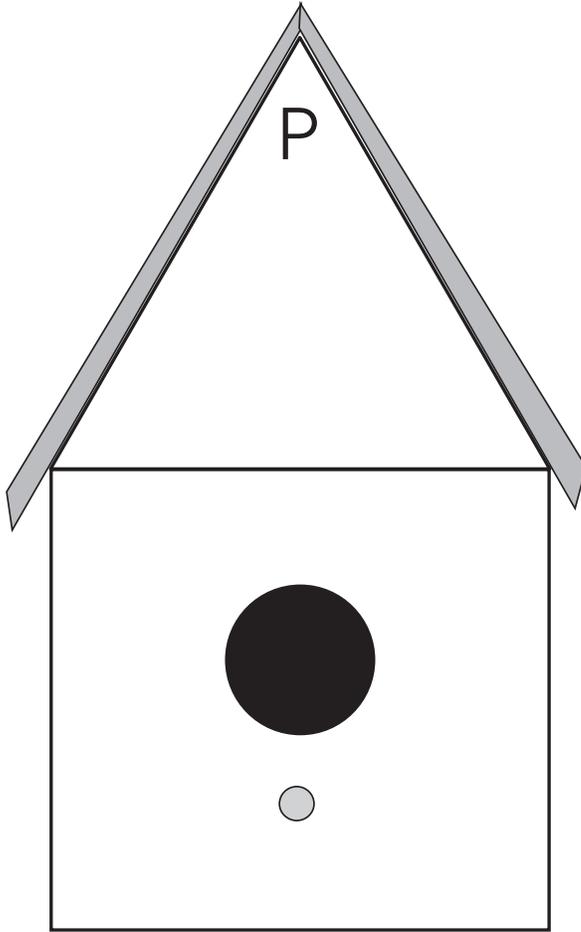


Which statement about the circle is true?

- A. The diameter is 9 cm.
- B. The diameter is 36 cm.
- C. The radius is 9 cm.
- D. The radius is 36 cm.

Item 23 has not been slated for public release
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24. Maria drew this design for a bird house.



About how many degrees does angle P appear to be?

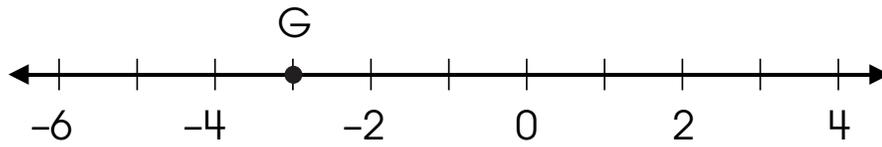
- A. 30°
- B. 60°
- C. 90°
- D. 120°

Items 25–26 have not been slated for public release
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27. Point G is shown on this number line.



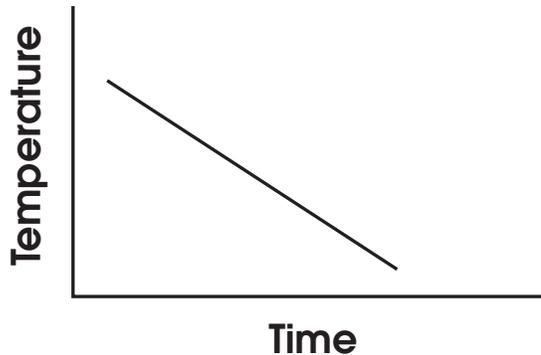
Which number does point G represent?

- A. -5
- B. $-4\frac{1}{2}$
- C. -3
- D. $-2\frac{1}{2}$

M

Mathematics

28. The graph shows the change in temperature over a period of time.



Which describes the change in temperature during this period of time?

- A. The temperature gets hot, then cold, then hot again.
- B. The temperature gets colder during this period of time.
- C. The temperature gets warmer during this period of time.
- D. The temperature stays the same during this period of time.

Items 29–31 have not been slated for public release in 2008.

M

Mathematics

32. Margo has 3 blue marbles, 4 green marbles and 5 red marbles in a bag. She randomly selects 1 marble.

What is the probability that the marble is green or red?

- A. $\frac{1}{12}$
- B. $\frac{4}{12}$
- C. $\frac{5}{12}$
- D. $\frac{9}{12}$

33. Pam has 70 baseball cards. She decides that she will buy 10 more baseball cards each week.

In your **Answer Document**, write an equation that describes the number of cards, c , she will have in w weeks.

Then, use your equation to find the number of baseball cards Pam will have in 6 weeks.
(2 points)



Item 34 has not been slated for public release
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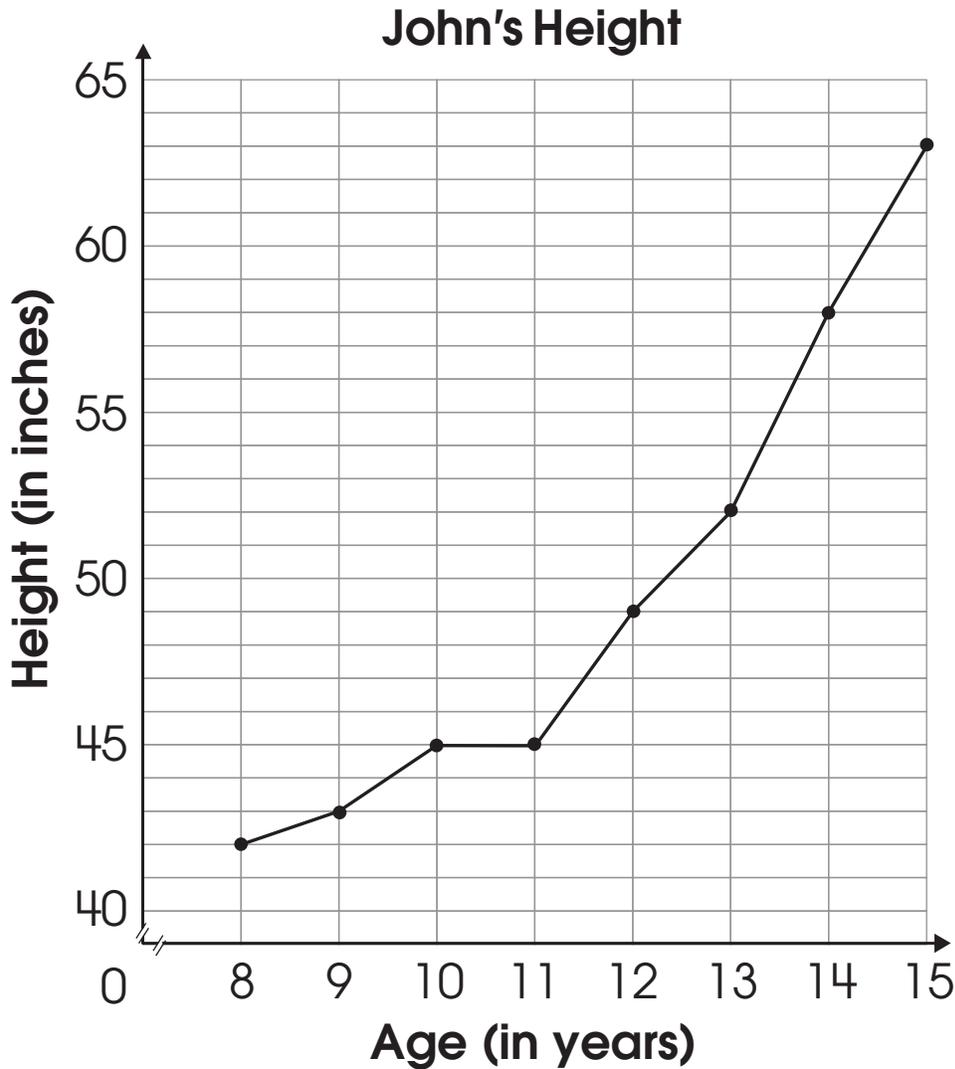
35. A triangle has one right angle and one acute angle.

What kind of angle must its third angle be?

- A. acute
- B. obtuse
- C. right
- D. straight



36. John created the graph shown to represent his height over time.



Which statement is true about the graph?

- A. John grew the most between ages 12 and 13.
- B. John grew the most between ages 13 and 14.
- C. John grew the least between ages 14 and 15.
- D. John did not grow at all between ages 9 and 10.

Items 37–38 have not been slated for public release
in 2008.



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Mathematics

39. Cammie rounded a length to 3.37 meters.

Which length could be the actual length she measured?

- A. 3.372 meters
- B. 3.376 meters
- C. 3.382 meters
- D. 3.471 meters

Item 40 has not been slated for public release
in 2008.

41. Craig tossed a coin 16 times. The coin landed on heads 6 times.

How does the number of heads Craig obtained compare with the number of heads expected?

- A. 1 fewer head than expected
- B. 2 fewer heads than expected
- C. 10 fewer heads than expected
- D. exact amount

Item 42 has not been slated for public release
in 2008.



43. Louis bought 6 gallons of milk for the soccer team. They drank 10 quarts of the milk.

How many quarts of milk were left over?

- A. 2 quarts
- B. 4 quarts
- C. 14 quarts
- D. 24 quarts

Items 44–46 have not been slated for public release
in 2008.



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