

Student Name: _____

Ohio Achievement Assessments



Mathematics Student Test Booklet

Large Print
Spring 2011

This test was originally administered to students in Spring 2011.

Not all items from the Spring 2011 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 Assessment. 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. Then, choose or write the answer you think is best.
2. Use only a #2 pencil to answer questions on this test. You may use a protractor on this test.
3. For multiple-choice questions, fill in the circle next to your answer choice. Mark only one answer for each question. If you change your answer, make sure you erase your old answer completely. Do not cross out or make any marks on the other choices.
4. For constructed-response questions, write your answer neatly, clearly and only in the space provided in your Answer Document. Any responses written in your Student Test Booklet will not be scored.

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Mathematics

5. 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 space provided for your answers is the same for all two- and four-point questions.
6. You may use the blank areas of your Student Test Booklet or the optional grid paper in your Answer Document to work out and solve problems. Do not tear out the optional grid paper from your Answer Document.
7. If you do not know the answer to a question, skip it and go on to the next question. If you have time, go back to the questions you skipped and try to answer them before turning in your Student Test Booklet and Answer Document.
8. Check over your work when you are finished.

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Mathematics

1. Robert recorded the number of miles he rode his bicycle each week in the table, as shown.

Week Number	Number of Miles
1	3
2	6
3	9
4	12

Which describes how the number of miles he rode changed each week?

- A. As the number of weeks increases, the number of miles he rode increases.
- B. As the number of weeks increases, the number of miles he rode decreases.
- C. As the number of weeks increases, the number of miles he rode stays the same.
- D. As the number of weeks increases, the number of miles he rode increases and then decreases.

Item 2 has not been slated for public release in 2011.



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3. A jewelry booth sells earrings, bracelets and necklaces. Each type of jewelry comes in red, blue, pink, and green.

Ginny bought one of each type of jewelry in each color.

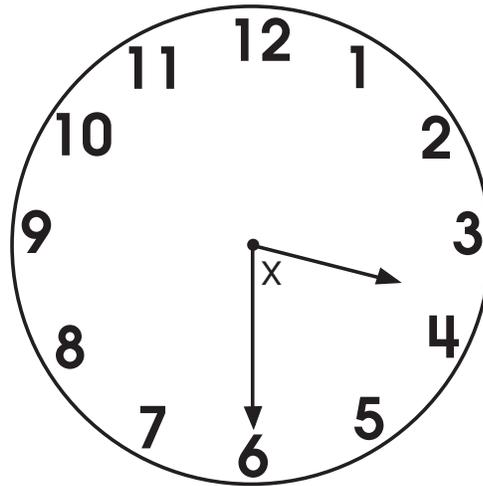
How many pieces did she buy?

- A. 3
- B. 4
- C. 7
- D. 12

Items 4–5 have not been slated for public release
in 2011.



6. A clock is shown.



Use your protractor to measure angle x .

What is the measure of angle x ?

- A. 60°
- B. 75°
- C. 90°
- D. 105°

7. The weather forecast states that the chance of rain is 1 in 10.

Which describes the likelihood that it will rain?

- A. certain
- B. impossible
- C. likely
- D. unlikely



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8. Which expression is the same as “five times a number n ”?

A. $5n$

B. $5 + n$

C. $5n + 5$

D. $5n + n$

Items 9–10 have not been slated for public release in 2011.



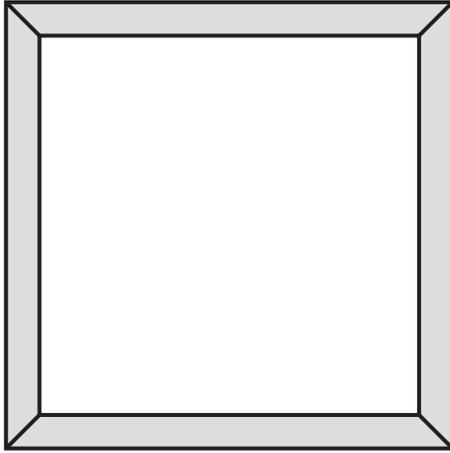
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M

Mathematics

11. Chuck is making a picture frame as shown.



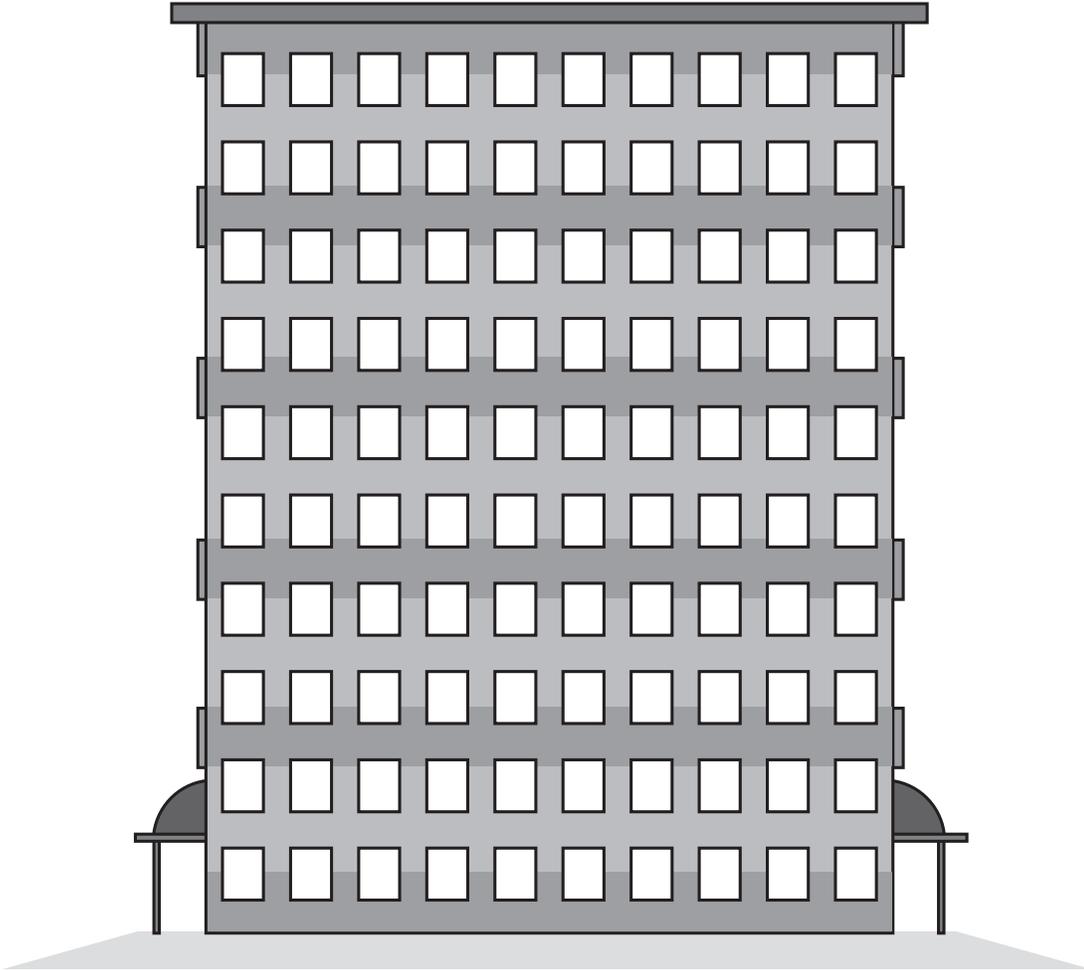
Which unit of measure should Chuck use to describe the size of the angles?

- A. degrees
- B. grams
- C. inches
- D. ounces

On the Spring 2011 Grade 5 Mathematics Achievement Assessment, items 12–17 are field-test items, which are not released.

Item 18 has not been slated for public release in 2011.

19. A window washer has one more row of windows to finish washing on the side of the building shown.



What percent of the windows on this side of the building does the window washer have left to wash?

- A. 1%
- B. 9%
- C. 10%
- D. 90%

Items 20–22 have not been slated for public release
in 2011.



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23. Ben surveyed 50 fifth graders about how they get to school. Tonya surveyed 50 different fifth graders. Ben's survey results are shown in the first table. He concluded that most people took the bus to school.

Ben's Results

Method	Number of Students
Walk	14
Car	11
Bus	25

Tonya's survey results are shown in the next table.

Tonya's Results

Method	Number of Students
Walk	40
Car	6
Bus	4



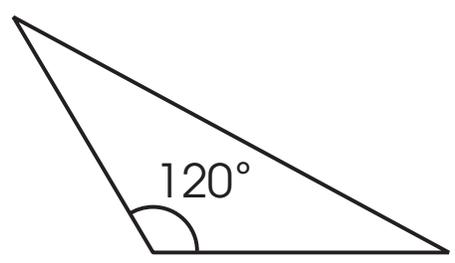
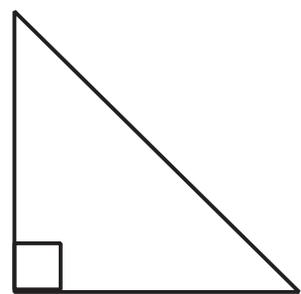
How should Ben change his conclusion based on the combined data?

- A. Most fifth graders walk to school.
- B. More fifth graders get to school by car than by bus.
- C. The fewest number of fifth graders take the bus to school.
- D. More fifth graders get to school by bus and car together than by walking.

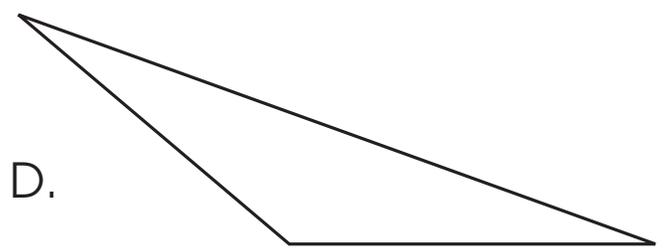
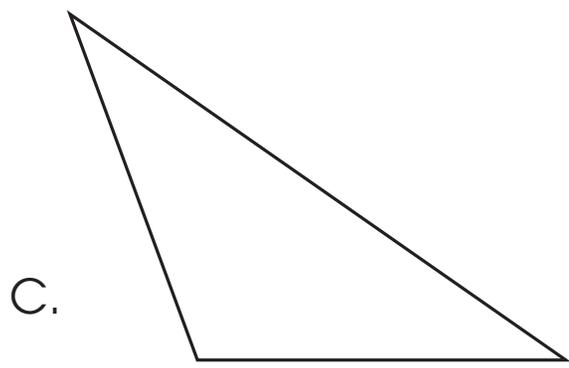
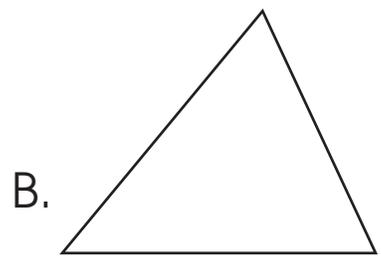
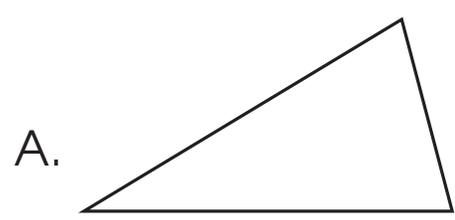
Items 24–28 have not been slated for public release in 2011.



29. Tori is putting together a birdhouse. The birdhouse has several pieces with different angle measures. Two pieces are shown with their measures labeled. Two pieces are shown with their measures labeled.



The next piece Tori needs has a 110° angle. Which could be the piece she needs?



Items 30–31 have not been slated for public release
in 2011.

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32. Which fraction is equivalent to $\frac{1}{3}$?

A. $\frac{1}{6}$

B. $\frac{3}{9}$

C. $\frac{4}{6}$

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

33. A parallelogram with two missing angle measures is shown.



What is the measure of one of the missing angles?

A. 55°

B. 110°

C. 145°

D. 290°

Item 34 has not been slated for public release in 2011.



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35. A library is having a reading contest. Students are awarded points for reading books. They receive prizes based on the number of points they earn. The table shows the number of points they earn after reading different numbers of books.

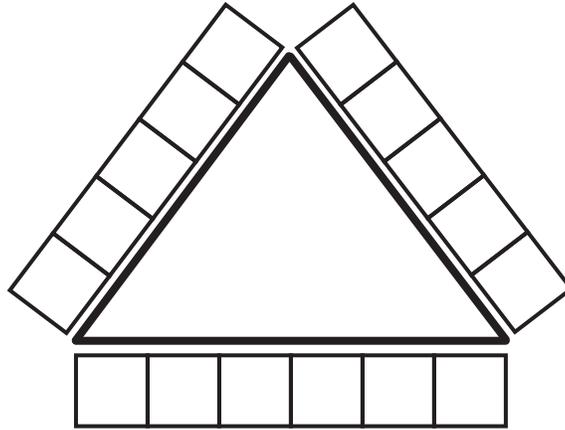
Number of Books Read (x)	Number of Points Earned (p)
1	8
2	13
4	23
6	33
8	43

In your **Answer Document**, write the rule that the library uses to determine the number of points a student earns for reading x books.

Then, use the rule to determine the number of points a student would earn for reading 5 books.

Show or explain how you found the number of points. (2 points)

36. Julian placed 1-centimeter square tiles along the sides of a triangle, as shown.

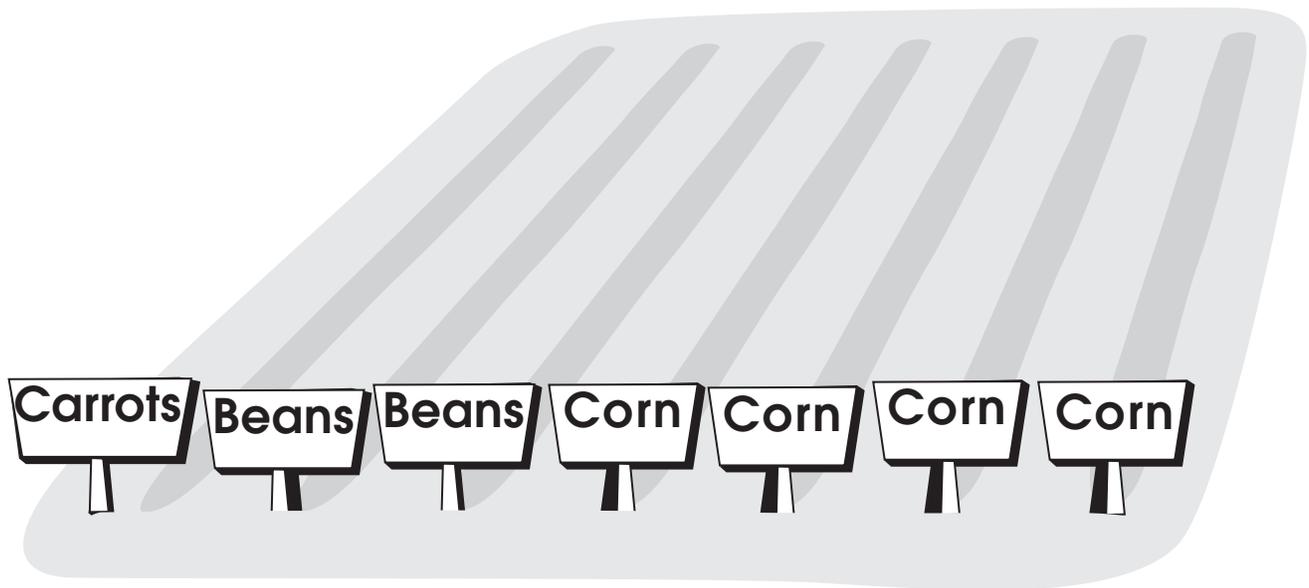


What measurement is Julian trying to determine?

- A. the area, which is 16 centimeters
- B. the perimeter, which is 16 centimeters
- C. the area, which is 16 square centimeters
- D. the perimeter, which is 16 square centimeters

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37. Tammy planted a vegetable garden. She planted 1 row of carrots, 2 rows of beans and 4 rows of corn.



What is the ratio of rows of corn to total rows in the garden?

- A. 3 to 4
- B. 4 to 3
- C. 4 to 7
- D. 7 to 4

Items 38–40 have not been slated for public release in 2011.

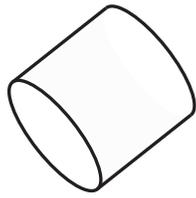
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Mathematics

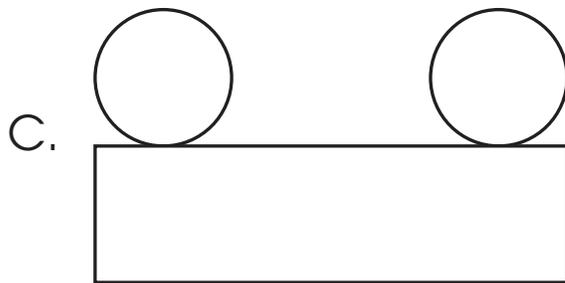
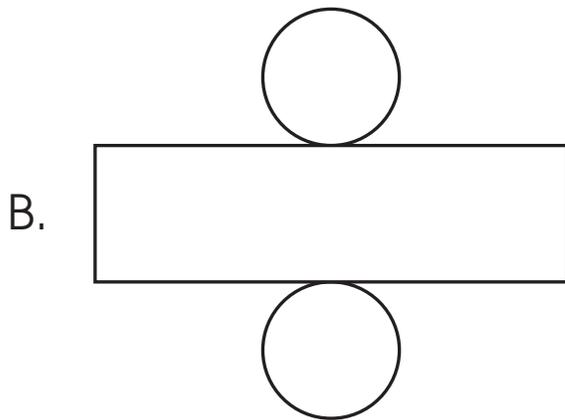
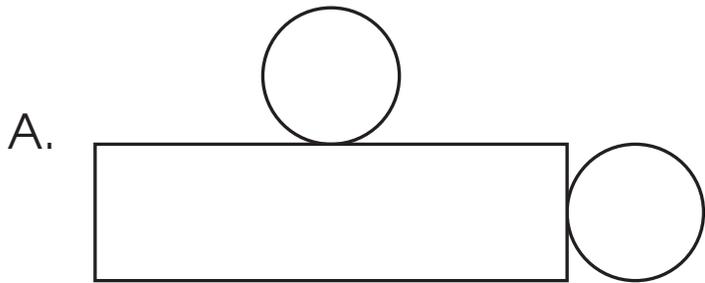
41. Jerome bought $4\frac{5}{8}$ yards of fabric. What is this amount of fabric rounded to the nearest $\frac{1}{2}$ yard?
- A. 4 yards
 - B. $4\frac{1}{2}$ yards
 - C. 5 yards
 - D. $5\frac{1}{2}$ yards

Items 42–44 have not been slated for public release in 2011.

45. A cylinder is shown.



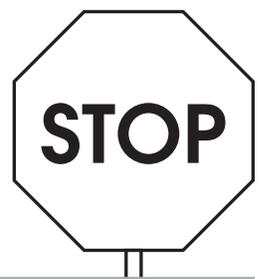
Which net can be folded to form the cylinder?



46. John reads 20 pages of a book each night. The expression $20x$ can be used to find the total number of pages John has read.

What does x represent in this expression?

- A. number of pages in the book
- B. number of nights he has read
- C. total number of pages he has read
- D. number of pages he has read each night



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