FCAT 2.0

Florida Comprehensive Assessment Test®

FCAT 2.0 Mathematics Sample Questions

Student Name

The intent of these sample test materials is to orient teachers and students to the types of questions on FCAT 2.0 tests. By using these materials, students will become familiar with the types of items and response formats they will see on the actual test. The sample questions and answers are not intended to demonstrate the length of the actual test, nor should student responses be used as an indicator of student performance on the actual test. Additional information about test items can be found in the *FCAT 2.0 Test Item Specifications* at http://fcat.fldoe.org/fcat2/itemspecs.asp.

The FCAT 2.0 Mathematics tests and sample questions and answers are based on the 2007 Next Generation Sunshine State Standards.

The sample questions for students and the sample answers for teachers will only be available online, at http://fcat.fldoe.org/fcat2/fcatitem.asp.

Directions for Answering the Mathematics Sample Questions

Some of the questions in this booklet are called multiple-choice questions. **A multiple-choice question is followed by several answer choices.** Read all the answer choices under each question and decide which answer is correct. Fill in the bubble next to the answer choice you think is correct for each multiple-choice question.

Mark your answers in this booklet. If you don't know how to work a problem, ask your teacher to explain it to you. Your teacher has the answers to the sample questions.

Calculators are NOT to be used with the Grade 4 FCAT 2.0 Mathematics Sample Questions.

FCAT 2.0 Mathematics will include perforated rulers for students in Grades 3 and 4. You will need a ruler to answer some of these sample questions. A sample ruler and directions for using the ruler are provided on the inside BACK cover of this booklet.

Note: The dimensions for the graphics on items that require the use of a ruler may not be accurate if this Web-based page is printed on a desktop printer because the printer may shrink content to fit the page; however, during the production of test booklets, the Florida Department of Education takes quality assurance steps to ensure the dimensions and scale are accurate in the items that require the student to use a ruler to measure.

Instructions for printing sample documents are provided on the inside BACK cover of this booklet.

How to Complete Grade 4 Response Grids

This symbol appears next to questions that require you to fill in your answer on a grid.

Directions for Completing the Response Grids

1. Work the problem and find an answer.
2. Write your answer in the answer boxes at the top of the grid.

   For whole-number, whole-number money, and percent grids:
   - Print your answer with the first digit in the left answer box OR with the last digit in the right answer box.
   - Print only one digit in each answer box. Do NOT leave a blank answer box in the middle of an answer.

   For decimal and money grids:
   - Use the decimal point to decide where to start your answer.
3. Fill in a bubble under each box in which you wrote your answer.
   - Fill in one and ONLY one bubble for each answer box. Do NOT fill in a bubble under an unused answer box.
   - Fill in each bubble by making a solid mark that completely fills the circle.
   - You MUST fill in the bubbles accurately to receive credit for your answer.

Whole-Number Grid

$126 \times 3 =$

Percent Grid

What percent is equivalent to $\frac{8}{10}$?

OR

Money Grids

$3.73 − $0.65 = $

$312 + $276 = $

OR

Decimal Grid

What decimal is equivalent to $\frac{1}{2}$?

(Note: Other correct gridded responses may include: 0.5, .5, 0.50, 0.500, and .500)

1.2 + 3.5 =

1 The Leaning Tower of Pisa is located in Italy. A picture is shown below.

Leaning Tower of Pisa
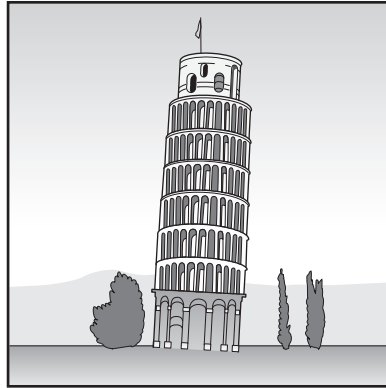
The height of the tower is $56\frac{7}{10}$ meters from the ground on the highest side.

What **decimal** is equivalent to $56\frac{7}{10}$ meters?

2 Anthony made the pattern below by adding triangle-shaped pieces to each design.
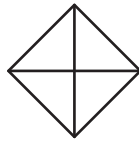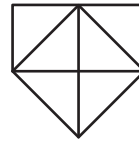
Figure 1	Figure 2	Figure 3	→	?
2 pieces	4 pieces	6 pieces		Figure 7
				___ pieces

If Anthony continues the pattern, what should be the total number of triangle-shaped pieces in **Figure 7** ?

3 Mr. Avery bought 4 new play kitchens for his prekindergarten classrooms. Each play kitchen cost $139. How much did Mr. Avery pay for the 4 play kitchens?

$

4 Max lives exactly 3 miles from work. He drove directly to and from work 5 days last week. Which expression could be used to find the total number of miles he drove to and from work last week?

Ⓐ 5 + 6

Ⓑ 5 + 3

Ⓒ 5 × 6

Ⓓ 5 × 3

5 The Brady family had a "Welcome" sign hanging by their front door.

$$\boxed{\text{Welcome}}$$

One of the nails in the sign came out, so the sign rotated 90° clockwise. Which of the following shows how the sign looked after the 90° clockwise rotation?

Ⓕ

Ⓖ

Ⓗ

Ⓘ

6 The table below shows the price of student notebooks at a school store. Each notebook sells for the same price.

NOTEBOOK PRICES

Number of Notebooks	Price (in dollars)
2	6
4	12
6	18
8	24
9	?

According to the relationship shown in the table, what would be the price, in dollars, of 9 notebooks?

Ⓐ 25

Ⓑ 27

Ⓒ 30

Ⓓ 42

7 At Champion Elementary, $\frac{27}{90}$ of the fourth grade students received citizenship awards for the school year. Which fraction is equivalent to $\frac{27}{90}$?

Ⓕ $\frac{3}{9}$

Ⓖ $\frac{3}{30}$

Ⓗ $\frac{9}{10}$

Ⓘ $\frac{3}{10}$

8 At their closest points, the distance between Alaska and Russia is 2.5 miles. Which of the following is equivalent to 2.5 ?

Ⓐ $2\frac{1}{5}$

Ⓒ $2\frac{1}{25}$

Ⓑ $2\frac{5}{10}$

Ⓓ $2\frac{5}{100}$

9 Denisse's puppy weighs 9.8 pounds. Which of the following fractions is closest to 9.8 ?

Ⓕ $9\frac{1}{2}$

Ⓗ $9\frac{1}{8}$

Ⓖ $9\frac{3}{4}$

Ⓘ $9\frac{2}{10}$

10 Janelle has saved $15 for a new bike. She will save $10 more each week.

- Let w represent the number of weeks.

Which expression represents the total amount of money Janelle will have saved in w weeks?

Ⓐ $w(10 + 15)$

Ⓑ $15w + 10$

Ⓒ $(w + 15)10$

Ⓓ $15 + 10w$

11 The population of Ireland in 2007 was 4,366,193. In 2008, the population increased to 4,459,547. By how much did the population of Ireland increase from 2007 to 2008?
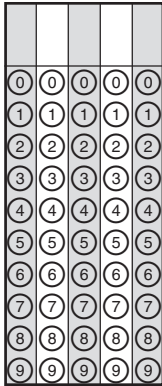
12 Four friends are having pancakes with strawberries on top. There are 26 strawberries. Each friend will get an equal number of strawberries. Which model shows how the strawberries could be divided equally among the 4 friends?

F

G

H

I

Page 9

13 Which of the following lists all of the factors of 40 ?

Ⓐ 1, 2, 4, 5, 8

Ⓑ 2, 4, 5, 8, 10, 20

Ⓒ 2, 4, 5, 8, 10, 40

Ⓓ 1, 2, 4, 5, 8, 10, 20, 40

14 A store had sweaters on sale for 75% off of the original price. Which of the following is equivalent to 75% ?

Ⓕ $\frac{1}{4}$

Ⓖ $\frac{1}{2}$

Ⓗ $\frac{3}{4}$

Ⓘ $\frac{5}{7}$

15 According to one source, Americans eat between 59 and 65 quarts of popcorn per person in a year. Which of the following is the best estimate of the number of quarts of popcorn eaten by an American family of 4 in one year?

Ⓐ 150

Ⓑ 200

Ⓒ 250

Ⓓ 300

16 Carla drew a picture of the shape of a pond at the park. It has an area of about 28 square yards. Which of the following could be Carla's picture of the pond?

| SCALE |
|---|
| ☐ = 1 square yard |
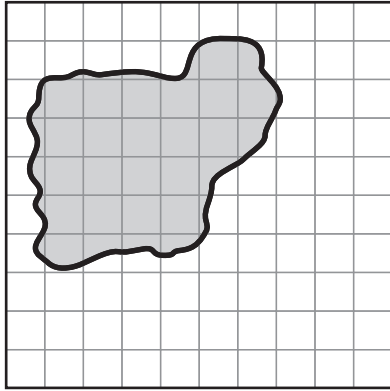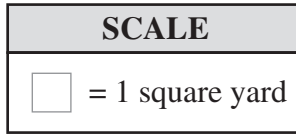
F
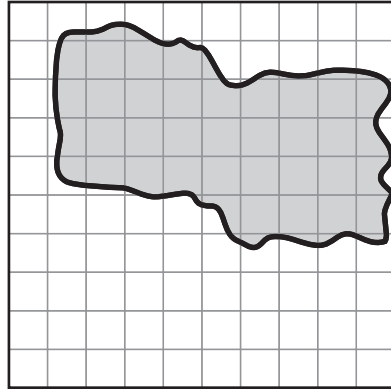
H
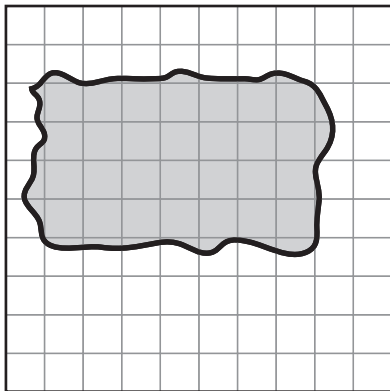
G
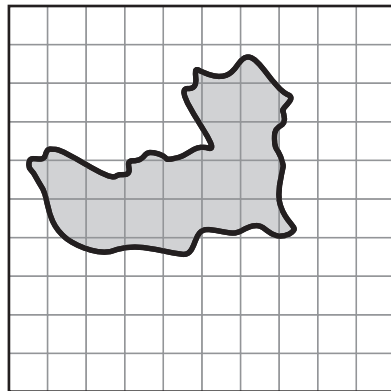
I

17 Mr. Clark hired workers to construct an in-ground pool in his backyard. For which of the following situations might the workers have used the area formula when constructing the pool?

    Ⓐ   determining the amount of water needed to fill the pool

    Ⓑ   determining the amount of fencing to put around the pool

    Ⓒ   determining the amount of ground the bottom of the pool will cover

    Ⓓ   determining the amount of dirt that will need to be dug for the pool

18 Lana bought a patch in the shape of an "L" to sew onto the back of her denim jacket. The size of the patch is shown below.
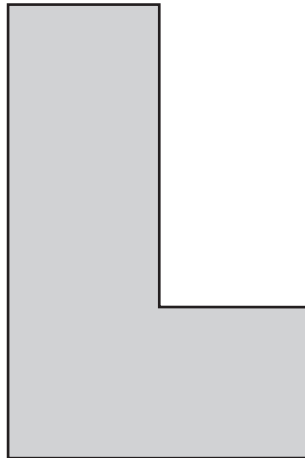
Using the provided ruler, what is the area, **in square centimeters**, of Lana's patch?
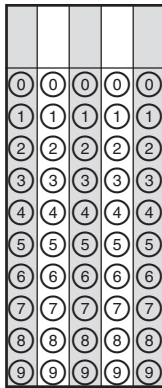
Note: The dimensions in this graphic may not be accurate if this Web-based page is printed on a desktop printer because the printer may shrink content to fit the page; however, during the production of test booklets, the Florida Department of Education takes quality assurance steps to ensure the dimensions and scale are accurate in the items that require the student to use a ruler to measure.

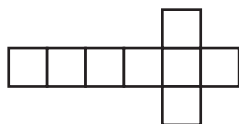**19** A picture of a bridge in the country of Croatia is shown below.
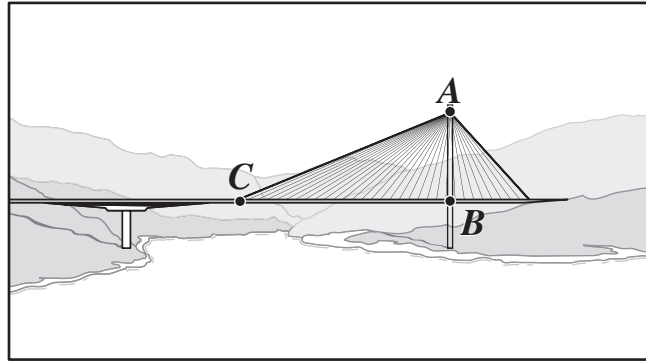
Which type of angle best describes $\angle ACB$?

Ⓕ   acute

Ⓖ   right

Ⓗ   obtuse

Ⓘ   straight
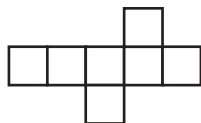
20 Lexi made a figure using cubes, as shown below.
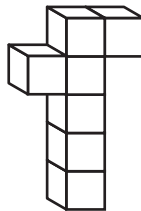
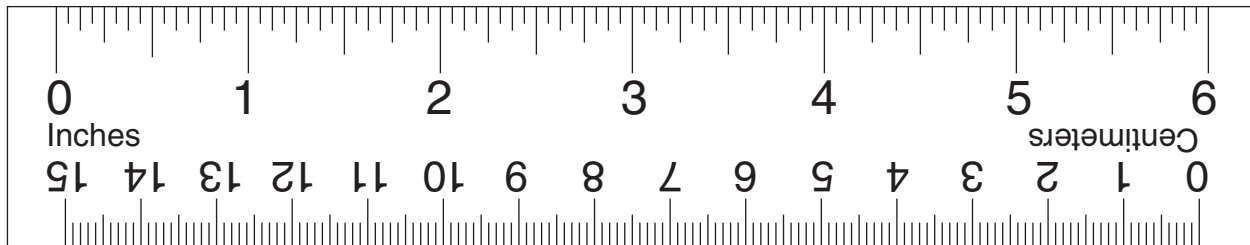Which of the following shows another view of the figure?

Ⓐ

Ⓒ

Ⓑ

Ⓓ

Please use this provided ruler for sample questions.


··
CUT HERE ✂ ✂ CUT HERE ✂ ✂ CUT HERE ✂ ✂ CUT HERE ✂ ✂ CUT HERE ✂ ✂ CUT HERE

The FCAT 2.0 Mathematics Grades 3 and 4 tests will require the use of a provided six-inch ruler with both metric and customary units. Items that require the student to use a ruler to measure and solve will use the wording "Using the provided ruler . . ." in the question. Graphics that need to be measured may include a line segment indicating the linear measure needed.* For example,

Terrence found a stone arrowhead like the one shown below.

Stone Arrowhead

?
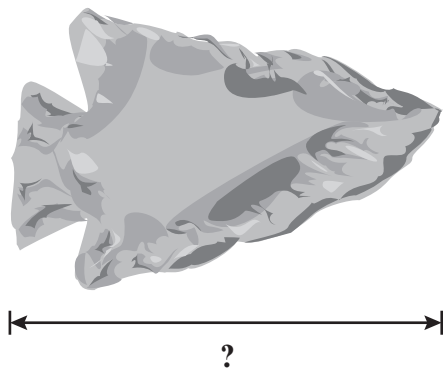
Using the provided ruler, what is the exact length, in inches, of the stone arrowhead?

*Note: Not all items will include an extracted line segment for students to measure.

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PRINTING SAMPLE DOCUMENTS

When printing sample documents, you will need to change print settings so printed pages will be the correct scale for Grades 3 and 4 Mathematics measurement items. Here are instructions for both PCs and Macs:

1. Open the file in Adobe Acrobat.
2. From the top menu, click on "File."
3. Click on "Print."
4. In the printer dialogue box, find the drop-down menu labeled "Print Scaling" or "Page Scaling."
5. On the drop-down menu, click on "None."
6. Click on "OK" (for PCs) or "Print" (for Macs).

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