

# FCAT

Florida Comprehensive Assessment Test

Student Name \_\_\_\_\_

## SUNSHINE STATE STANDARDS

MATHEMATICS



# MATHEMATICS

SUNSHINE STATE STANDARDS

# TEST BOOK

RELEASED OCTOBER 2005

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# GRADE

# 4

FC10001298

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Use the space in the Test Book to do your work. Then mark your Test Book for the answer you have chosen. If you change your answer, be sure to erase completely.

The correct answer for each multiple-choice question is circled. To the left of each answer choice is the percentage of students who chose that answer.

- 1 Alaska is the largest state in our country. It has an area of about 570,833 square miles.

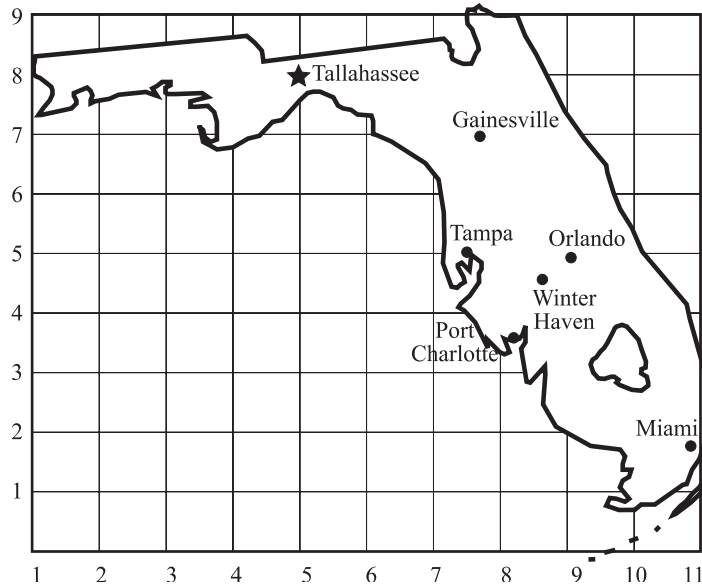


What is the value of the 8 in this number?

- 1% A. 8
- 96% **B.** 800
- 2% C. 8,000
- 1% D. 80,000

| Benchmark  | Content Focus                | Content Difficulty |
|------------|------------------------------|--------------------|
| MA.A.2.2.1 | place value of whole numbers | Low                |

2 Look at the map of Florida.



Which coordinate pair best describes the location of Tallahassee?

- 12% F. (8, 5)
- 88% **G.** (5, 8)
- 0% H. (9, 5)
- 1% I. (7, 8)

| Benchmark  | Content Focus           | Content Difficulty |
|------------|-------------------------|--------------------|
| MA.C.3.2.2 | identifying coordinates | Low                |

- 3 The following table shows the cost of carnival tickets.

**CARNIVAL TICKETS**

| Number of Tickets | Total Cost |
|-------------------|------------|
| 1                 | \$3.50     |
| 2                 | \$7.00     |
| 3                 | \$10.50    |
| 4                 |            |
| 5                 | ?          |

If the cost of each ticket remains the same, what will be the **total** cost of 5 tickets?

- 8% A. \$14.00
- 11% B. \$14.50
- 11% C. \$17.00
- 71% **D.** \$17.50

| Benchmark  | Content Focus      | Content Difficulty |
|------------|--------------------|--------------------|
| MA.D.1.2.1 | numerical patterns | Moderate           |

- 4 George bought a pen for \$1.98, and he also bought some paper. He spent a total of \$2.87.

Let  $p$  represent the cost of the paper. Which equation below will help him find the cost of the paper?

- 72% **F.**  $1.98 + p = 2.87$
- 6% **G.**  $1.98 \times p = 2.87$
- 18% **H.**  $p - 1.98 = 2.87$
- 5% **I.**  $p \div 1.98 = 2.87$

| Benchmark  | Content Focus | Content Difficulty |
|------------|---------------|--------------------|
| MA.D.2.2.1 | equations     | Moderate           |

5 Mr. Catelli bought a shirt for \$15 and a tie for less than the cost of the shirt.

Let  $t$  represent the cost of the tie.

Which inequality shows the cost of his tie?

10% A.  $t > \$15$

80% **B.**  $t < \$15$

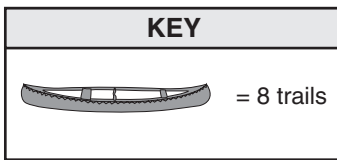
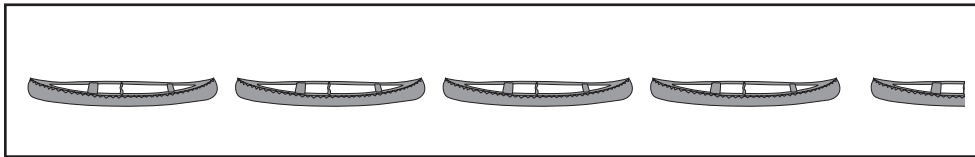
4% C.  $t \geq \$15$

7% D.  $t \leq \$15$

| Benchmark  | Content Focus        | Content Difficulty |
|------------|----------------------|--------------------|
| MA.D.2.2.2 | solving inequalities | Low                |

- 6 People can explore Florida in a canoe. The pictograph shows the number of canoe trails in the state.

**NUMBER OF CANOE TRAILS**



How many canoe trails are there in Florida?

- 1% F. 4
- 1% G. 8
- 9% H. 32
- 89% **I.** 36

| Benchmark  | Content Focus | Content Difficulty |
|------------|---------------|--------------------|
| MA.E.1.2.1 | pictographs   | Moderate           |

- 7 A fathom is a unit once used by sailors to measure the depth of water.  
 If a sunken ship was located underwater at 240 feet, which expression would describe the location of the ship in fathoms?

|                   |
|-------------------|
| 1 fathom = 6 feet |
|-------------------|

- 33% A.  $240 \times 6$   
 58% **B.**  $240 \div 6$   
 5% C.  $240 - 6$   
 5% D.  $240 + 6$

| Benchmark  | Content Focus       | Content Difficulty |
|------------|---------------------|--------------------|
| MA.A.3.2.2 | division expression | Moderate           |

- 8 Smileys are typed letters and symbols that look like faces when turned sideways. They are typed in messages and e-mails on the computer.

**SMILEYS**

| Name     | Symbol |
|----------|--------|
| Happy    | : - )  |
| Sad      | : - (  |
| Laughing | : - D  |

Which drawing below shows the **sad** smiley on the chart turned clockwise 90 degrees?



| Benchmark  | Content Focus | Content Difficulty |
|------------|---------------|--------------------|
| MA.C.2.2.2 | rotations     | Moderate           |

- 9 The Hindus in India had number symbols before the Romans used letters for numbers. The symbol for the number 4 is shown below.

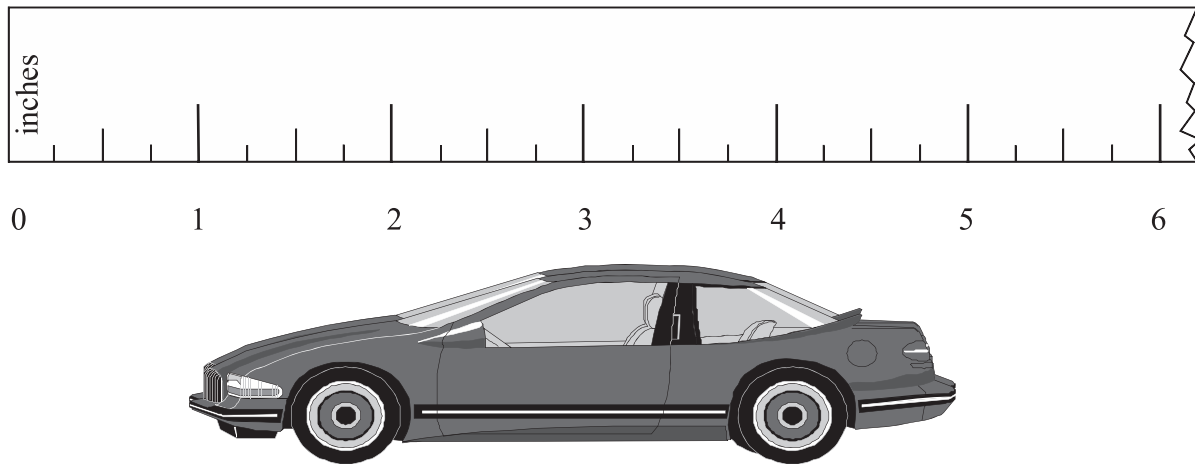


How many lines of symmetry does the Hindu symbol for 4 have?

- 64% **A.** 1  
 19% **B.** 2  
 5% **C.** 3  
 12% **D.** 4

| Benchmark  | Content Focus | Content Difficulty |
|------------|---------------|--------------------|
| MA.C.2.2.1 | symmetry      | Moderate           |

- 10 Rafael's class is using different sizes of model cars to study force and motion.

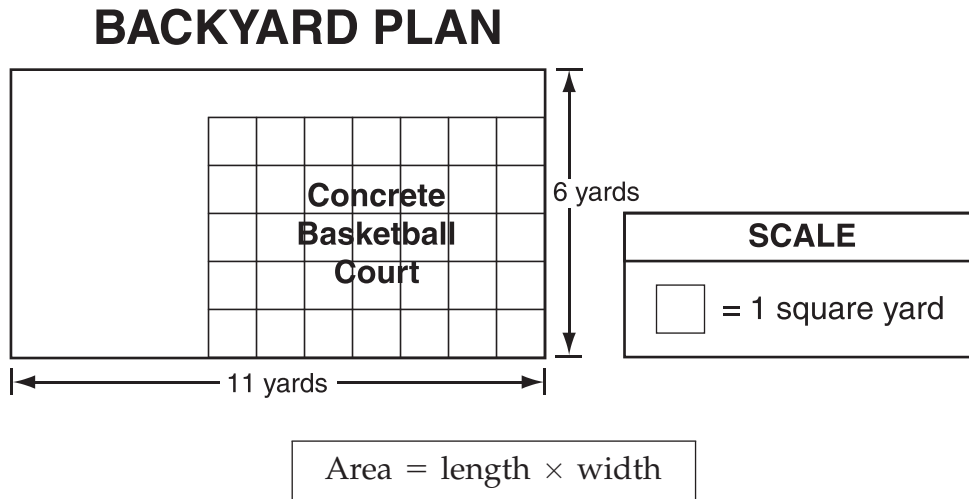


About how many inches long is Rafael's model car?

- 0% F. 2 inches
- 45% **G.** 4 inches
- 54% H. 5 inches
- 1% I. 6 inches

| Benchmark  | Content Focus | Content Difficulty |
|------------|---------------|--------------------|
| MA.B.4.2.2 | length        | Moderate           |

- 11 Jamie's family is planning to build a concrete basketball court in their backyard.

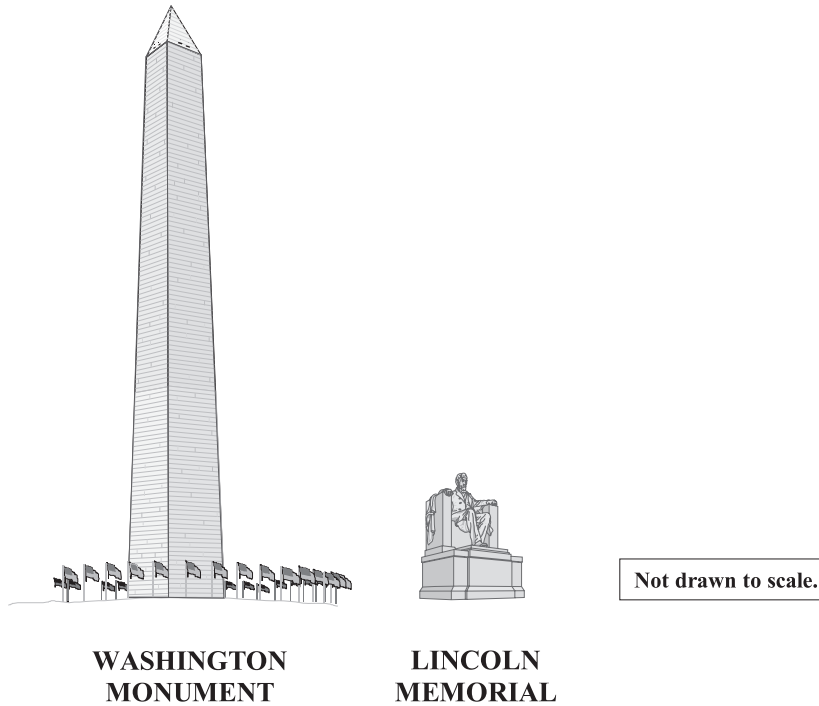


How many square yards will be left in the backyard for grass?

- 8% A. 60 square yards
- 40% B. 35 square yards
- 40% **C.** 31 square yards
- 11% D. 24 square yards

| Benchmark  | Content Focus | Content Difficulty |
|------------|---------------|--------------------|
| MA.C.3.2.1 | area          | High               |

- 12 The Washington Monument and the Lincoln Memorial are in Washington, D.C. The Washington Monument is 555 feet tall. The Lincoln Memorial is 6 yards and 1 foot tall.



How much taller, in **feet**, is the Washington Monument than the Lincoln Memorial?

1 yard = 3 feet

- 61% **F.** 536 feet
- 13% **G.** 548 feet
- 12% **H.** 549 feet
- 14% **I.** 554 feet

| Benchmark  | Content Focus     | Content Difficulty |
|------------|-------------------|--------------------|
| MA.B.2.2.1 | length comparison | Moderate           |

- 13** The chart shows the number of immigrants who settled in four states in 1996.

**WHERE DID IMMIGRANTS SETTLE?**

| State      | Number of Immigrants in 1996 |
|------------|------------------------------|
| California | 201,529                      |
| Florida    | 79,461                       |
| New York   | 154,095                      |
| Texas      | 83,385                       |

Which state's number of immigrants has a numeral greater than 1 in the hundred-thousands place?

- 75% **A.** California
- 3% **B.** Florida
- 18% **C.** New York
- 4% **D.** Texas

| Benchmark  | Content Focus                | Content Difficulty |
|------------|------------------------------|--------------------|
| MA.A.2.2.1 | place value of whole numbers | Low                |

- 14 The chart below shows the number of votes each student received in a school election.

**ELECTION RESULTS**

| Student | Votes Received |
|---------|----------------|
| Abby    | 40             |
| Adam    | 47             |
| Dan     | 67             |
| Lonnie  | 56             |
| Zoe     | 75             |

What was the **mean** number of votes received?

- 17% F. 35
- 42% **G.** 57
- 18% H. 67
- 23% I. 75

| Benchmark  | Content Focus | Content Difficulty |
|------------|---------------|--------------------|
| MA.E.1.2.2 | mean          | Moderate           |

- 15** Folders were sold at the school store for \$1.50 each.  
 Let  $f$  represent the number of folders that were sold.  
 Which expression represents the money received by selling folders?

21% **A.**  $1.50 + f$

10% **B.**  $1.50 - f$

59% **C.**  $1.50 \times f$

10% **D.**  $1.50 \div f$

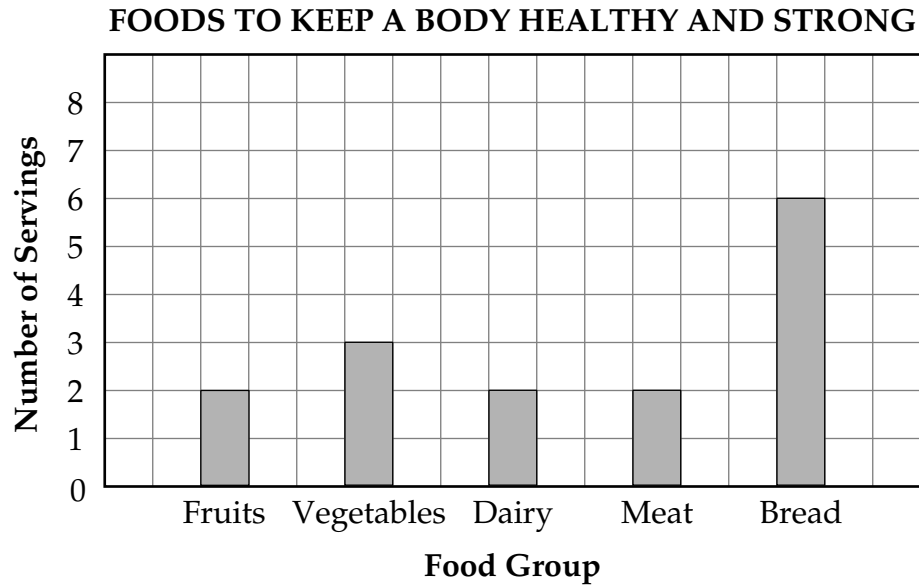
| Benchmark  | Content Focus            | Content Difficulty |
|------------|--------------------------|--------------------|
| MA.D.2.2.1 | one-variable expressions | Low                |

**16** Which of these measurements best describes the weight of one apple?

- 4% F. 7 inches
- 80% **G.** 7 ounces
- 1% H. 7 tons
- 14% I. 7 pounds

| Benchmark  | Content Focus    | Content Difficulty |
|------------|------------------|--------------------|
| MA.B.2.2.2 | customary weight | Low                |

- 17 The bar graph below shows the kinds of foods and number of servings students should eat each day to keep a body healthy and strong.



How many **more** servings of bread than of fruits and vegetables combined should a student eat each day?

- 68% **A.** 1
- 6% **B.** 2
- 11% **C.** 3
- 15% **D.** 4

| Benchmark  | Content Focus | Content Difficulty |
|------------|---------------|--------------------|
| MA.E.1.2.1 | bar graph     | Moderate           |

- 18** The students in Mr. Lee’s class are having a track and field day. The table below shows the schedule of events.

**EVENTS**

| Morning Events | Afternoon Events  |
|----------------|-------------------|
| One-Mile Run   | Sack Race         |
| Hurdles        | Three-Legged Race |
| Pole Vault     | Relay Race        |

Each student must choose 1 morning event and 1 afternoon event. How many different pairs of events can be made from the choices above?

- 10% **F.** 3  
 23% **G.** 6  
 58% **H.** 9  
 9% **I.** 12

| Benchmark  | Content Focus | Content Difficulty |
|------------|---------------|--------------------|
| MA.E.2.2.1 | combinations  | Moderate           |

- 19 The soccer ball is covered with two kinds of polygons.



What shape are the **shaded** polygons?

- 25% A. hexagon
- 9% B. octagon
- 65% **C.** pentagon
- 1% D. rectangle

| Benchmark  | Content Focus    | Content Difficulty |
|------------|------------------|--------------------|
| MA.C.1.2.1 | regular polygons | Low                |

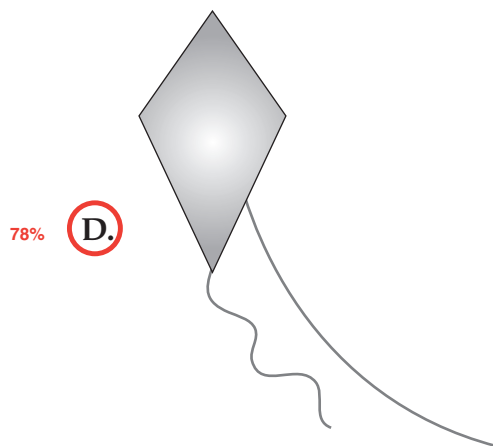
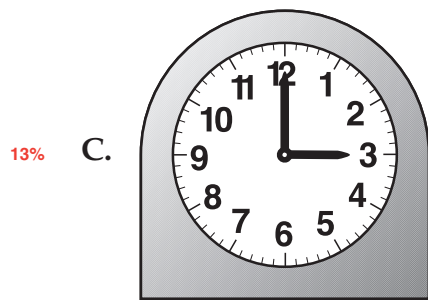
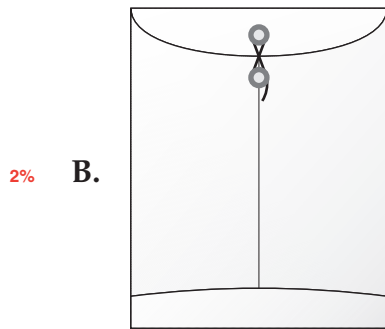
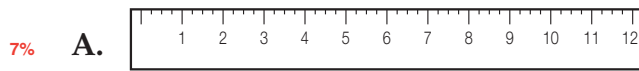
- 20 On the first visit to the veterinarian, Eleanor’s cat weighed 3 pounds 4 ounces. On the second visit, her cat weighed 4 pounds 2 ounces. How much weight, **in ounces**, did Eleanor’s cat gain between the first and second visit to the veterinarian?

|                     |
|---------------------|
| 16 ounces = 1 pound |
|---------------------|

- 20% F. 0.8
- 18% G. 1
- 23% H. 7.6
- 39% **I.** 14

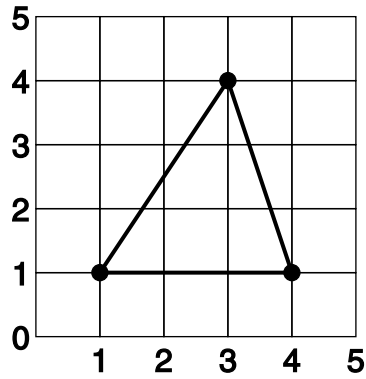
| Benchmark  | Content Focus      | Content Difficulty |
|------------|--------------------|--------------------|
| MA.B.2.2.1 | calculating weight | Moderate           |

21 Which figure below does NOT appear to have any right angles?



| Benchmark  | Content Focus | Content Difficulty |
|------------|---------------|--------------------|
| MA.B.1.2.2 | angles        | Low                |

- 22 Look at the triangle drawn on the grid below.



Which ordered pair is located **inside** the triangle?

- 3% F. (1, 2)
- 13% G. (2, 3)
- 78% **H. (3, 2)**
- 6% I. (4, 2)

| Benchmark  | Content Focus           | Content Difficulty |
|------------|-------------------------|--------------------|
| MA.C.3.2.2 | identifying coordinates | Low                |

- 23** Melissa took a 30-question timed math quiz each school day for 7 days. The table below shows the number of questions Melissa answered correctly each day.

**MELISSA'S MATH ANSWERS**

| Day | Number of Correct Answers |
|-----|---------------------------|
| 1   | 2                         |
| 2   | 6                         |
| 3   | 10                        |
| 4   | 14                        |
| 5   |                           |
| 6   | ?                         |
| 7   |                           |

If the number of her correct answers continued to increase at the same rate each day, how many questions did Melissa answer correctly on day 6?

- 1% A. 16  
 7% B. 18  
 88% **C.** 22  
 4% D. 26

| Benchmark  | Content Focus      | Content Difficulty |
|------------|--------------------|--------------------|
| MA.D.1.2.1 | numerical patterns | Moderate           |

- 24 Mrs. Moore's chart showed a group of science quiz scores.

**SCIENCE QUIZ SCORES**

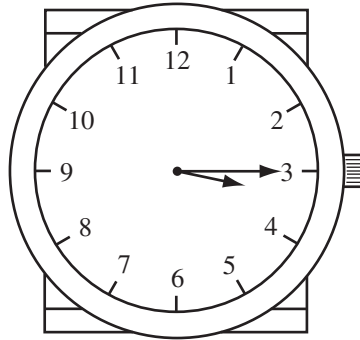
|     |
|-----|
| 96  |
| 85  |
| 80  |
| 88  |
| 78  |
| 80  |
| 100 |

What was the **median** score on the quiz?

- 14% F. 80
- 60% **G.** 85
- 3% H. 86
- 24% I. 88

| Benchmark  | Content Focus | Content Difficulty |
|------------|---------------|--------------------|
| MA.E.1.2.2 | median        | Moderate           |

- 25** Wanda looked at her watch when she entered the grocery store. This is the time she saw on her watch.



1 hour = 60 minutes

She left the grocery store 75 minutes later. What time did Wanda leave the grocery store?

- 8% **A.** 3:15
- 8% **B.** 4:00
- 82% **C.** 4:30
- 3% **D.** 7:50

| Benchmark  | Content Focus | Content Difficulty |
|------------|---------------|--------------------|
| MA.B.1.2.2 | elapsed time  | Moderate           |

- 26** A game in P. E. class requires that students work in teams of 3 to carry a giant Earth ball from one side of the field to the other.

**NUMBER OF STUDENTS PER CLASS**

| Class        | Number of Students |
|--------------|--------------------|
| Kindergarten | 22                 |
| First Grade  | 28                 |
| Second Grade | 31                 |
| Third Grade  | 36                 |

Which class has **exactly** enough students to play the game with no students left over?

- 8% F. kindergarten
- 8% G. first grade
- 7% H. second grade
- 78% **I.** third grade

| Benchmark  | Content Focus         | Content Difficulty |
|------------|-----------------------|--------------------|
| MA.A.5.2.1 | identifying multiples | Low                |

**27** Gilbert received \$15.00 as a gift. He wanted to buy a video game for \$12.98 (including tax). Which expression could be used to determine the amount of money Gilbert will have left after he buys the video game?

6% **A.**  $12.98 + 15.00$

86% **B.**  $15.00 - 12.98$

4% **C.**  $12.98 \times 15.00$

4% **D.**  $15.00 \div 12.98$

| Benchmark  | Content Focus          | Content Difficulty |
|------------|------------------------|--------------------|
| MA.A.3.2.2 | subtraction expression | Low                |

- 28** The New Hampshire Gazette newspaper was founded on October 7, 1756, in Portsmouth, New Hampshire. In 2001, it was the eighth oldest business in the United States.

How many years had the New Hampshire Gazette been in business on October 7, 2001?

- 58% **F.** 245 years
- 17% **G.** 355 years
- 14% **H.** 1755 years
- 12% **I.** 3757 years

| Benchmark  | Content Focus            | Content Difficulty |
|------------|--------------------------|--------------------|
| MA.A.3.2.3 | whole number subtraction | Low                |

- 29** A visitor at the Stephen Foster State Folk Culture Center can hear beautiful music played on bells. The music is played on 1 high-note bell and 3 sets of 32 bells.

Which of the following should be used to find the total number of bells?

24% **A.**  $1 + 3 + 32$

16% **B.**  $1 \times 3 + 32$

21% **C.**  $1 \times 3 \times 32$

40% **D.**  $1 + 3 \times 32$

| Benchmark  | Content Focus              | Content Difficulty |
|------------|----------------------------|--------------------|
| MA.A.3.2.1 | mixed operation expression | Moderate           |

- 30 A teacher and 17 elementary students went to the art museum.

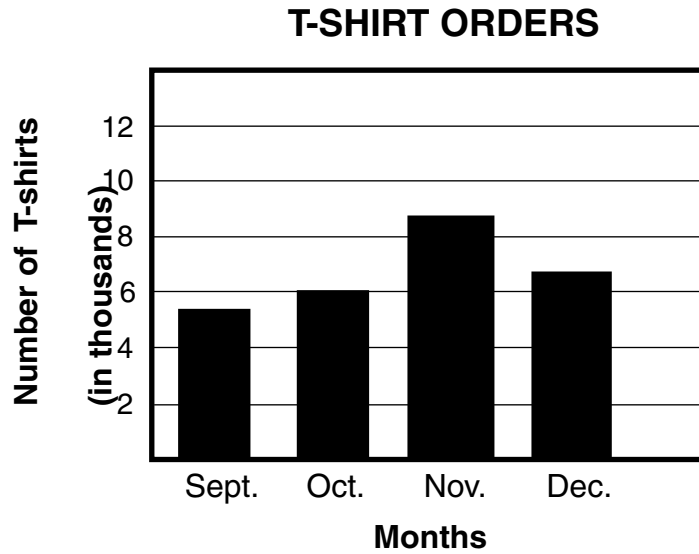
| ART MUSEUM<br>ADMISSION PRICES |     |
|--------------------------------|-----|
| Adults                         | \$6 |
| Students                       | \$4 |

Using the prices on the chart, which equation should be used to find the total price of the tickets?

- 13% F.  $6 \times 4 + 17 = \square$
- 13% G.  $17 + 4 + 6 = \square$
- 54% **H.**  $6 + (4 \times 17) = \square$
- 20% I.  $17 \times (4 + 6) = \square$

| Benchmark  | Content Focus         | Content Difficulty |
|------------|-----------------------|--------------------|
| MA.D.2.2.2 | translating equations | Moderate           |

- 31 A T-shirt factory posted a graph showing the number of T-shirts ordered in 4 months.



The grid lines represent what increments?

- 18% A. 1 thousand
- 44% **B. 2 thousand**
- 20% C. 6 thousand
- 18% D. 8 thousand

| Benchmark  | Content Focus | Content Difficulty |
|------------|---------------|--------------------|
| MA.E.1.2.1 | bar graphs    | Moderate           |

- 32 Snowfall in Florida is very unusual. The chart shows some places in Florida and the greatest amount of snow that fell in a single day.

**SNOWFALL IN FLORIDA**

|                     |                     |
|---------------------|---------------------|
| Lake Butler         | $\frac{1}{3}$ foot  |
| Pensacola           | $\frac{1}{12}$ foot |
| Suwannee River area | $\frac{1}{6}$ foot  |
| Tallahassee         | $\frac{1}{4}$ foot  |

Which area had the **most** snowfall?

- 58% **F.** Lake Butler
- 36% **G.** Pensacola
- 3% **H.** Suwannee River area
- 4% **I.** Tallahassee

| Benchmark  | Content Focus | Content Difficulty |
|------------|---------------|--------------------|
| MA.A.1.2.2 | fraction size | Moderate           |

- 33** Pam's age is 3 years more than twice Marie's age. Marie is 8 years old.

Let  $p$  represent Pam's age.

Which equation below could be used to find Pam's age?

28% **A.**  $p = (2 \times 3) + 8$

18% **B.**  $p = 2 + 3 + 8$

46% **C.**  $p = (2 \times 8) + 3$

8% **D.**  $p = (8 \div 2) + 3$

| Benchmark  | Content Focus | Content Difficulty |
|------------|---------------|--------------------|
| MA.D.2.2.1 | equations     | Moderate           |

**34** A famous tennis player was the #1 U.S. men's tennis player for 265 weeks.

Which is the best estimate of the number of years he was #1?

|                   |
|-------------------|
| 1 year = 52 weeks |
|-------------------|

9% **F.** 2 years

14% **G.** 3 years

19% **H.** 4 years

58% **I.** 5 years

| Benchmark  | Content Focus   | Content Difficulty |
|------------|-----------------|--------------------|
| MA.A.4.2.1 | number estimate | Moderate           |

**35** Which of the measurements below is the most reasonable weight of an average 5-year-old child?

2% A. 4 ounces

5% B. 40 ounces

15% C. 4 pounds

78% **D.** 40 pounds

| Benchmark  | Content Focus    | Content Difficulty |
|------------|------------------|--------------------|
| MA.B.2.2.2 | customary weight | Low                |

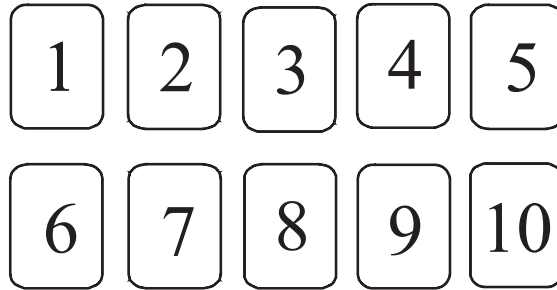
- 36** In the United States, about 350 slices of pizza per second are eaten by pizza lovers. About how many slices of pizza are eaten in one **minute**?

|                       |
|-----------------------|
| 1 minute = 60 seconds |
|-----------------------|

- 28% **F.** 2,100
- 15% **G.** 8,400
- 14% **H.** 18,000
- 43% **I.** 21,000

| Benchmark  | Content Focus               | Content Difficulty |
|------------|-----------------------------|--------------------|
| MA.A.3.2.3 | whole number multiplication | Low                |

- 37 A bag contains 10 cards, each with a different number from 1 to 10. Jesse picks a card without looking.

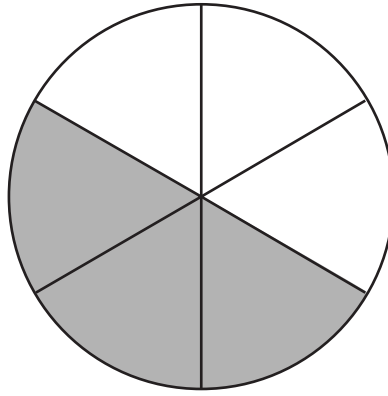


What is the probability he will pick a 6?

- 71% **A.**  $\frac{1}{10}$
- 4% **B.**  $\frac{1}{9}$
- 13% **C.**  $\frac{1}{6}$
- 13% **D.**  $\frac{6}{10}$

| Benchmark  | Content Focus | Content Difficulty |
|------------|---------------|--------------------|
| MA.E.2.2.2 | probability   | Low                |

- 38 In the circle below,  $\frac{3}{6}$  of the sections are shaded.

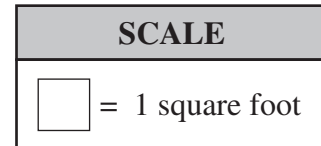
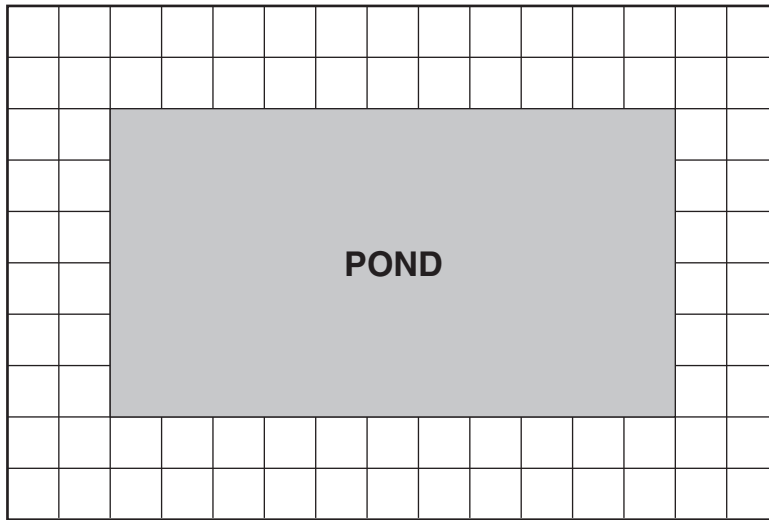


Which of the following is equal to  $\frac{3}{6}$  ?

- 9% F.  $\frac{1}{3}$
- 62% **G.**  $\frac{1}{2}$
- 8% H.  $\frac{1}{6}$
- 22% I.  $\frac{3}{3}$

| Benchmark  | Content Focus        | Content Difficulty |
|------------|----------------------|--------------------|
| MA.A.1.2.4 | equivalent fractions | Low                |

- 39 The shaded area in the diagram below represents the pond in the park.



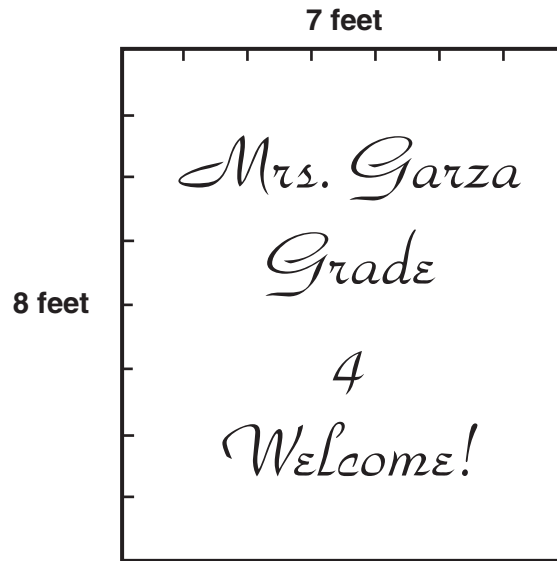
What is the area of the pond?

|   |
|---|
| $\text{Area} = \text{length} \times \text{width}$ |
|---|

- 12% A. 34 square feet
- 64% **B.** 66 square feet
- 16% C. 84 square feet
- 8% D. 150 square feet

| Benchmark  | Content Focus | Content Difficulty |
|------------|---------------|--------------------|
| MA.B.1.2.2 | area          | Moderate           |

- 40 Ms. Garza wanted to make a border for her bulletin board. She marked the board to help her figure out the perimeter of the board.



What is the perimeter, in feet, of Ms. Garza's bulletin board?

Perimeter = distance around a figure

- 9% F. 15 feet
- 76% **G.** 30 feet
- 3% H. 54 feet
- 12% I. 56 feet

| Benchmark  | Content Focus | Content Difficulty |
|------------|---------------|--------------------|
| MA.C.3.2.1 | perimeter     | Moderate           |

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## TEST BOOK

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GRADE

# 4



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