

Student Name: _____

Ohio Achievement Tests



Mathematics Student Test Booklet Half-Length Practice Tests

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 Practice Test. Three different types of questions appear on this test: multiple choice, short answer and extended response.

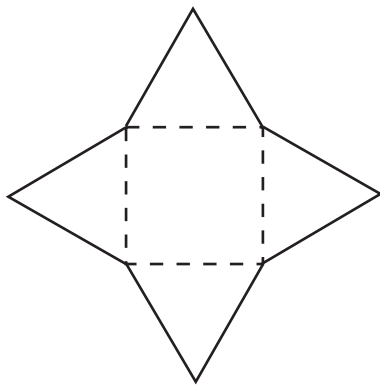
There are several important things to remember:

1. Read each question carefully. Think about what is being asked. Look carefully at graphs or diagrams because they help you understand the question.
2. You may use the blank areas of your Student Test Booklet to solve problems.
3. For short-answer and extended-response questions, write your answers neatly and clearly in the space provided in the answer document. Any answers you write in the Student Test Booklet will not be scored.
4. Short-answer questions are worth two points. Extended-response questions are worth four points. The amount of space provided for your answers is the same for 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 when taking this practice test.
8. Check over your work when you are finished.

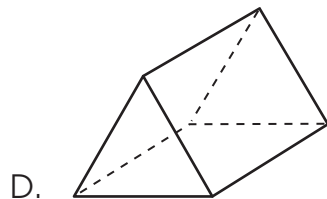
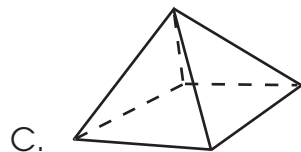
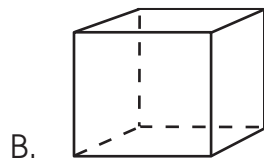
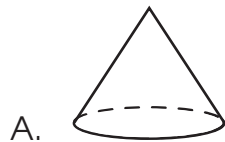
1. Simplify: $5 + 2 \times 3 - 1$

- A. 0
- B. 10
- C. 14
- D. 20

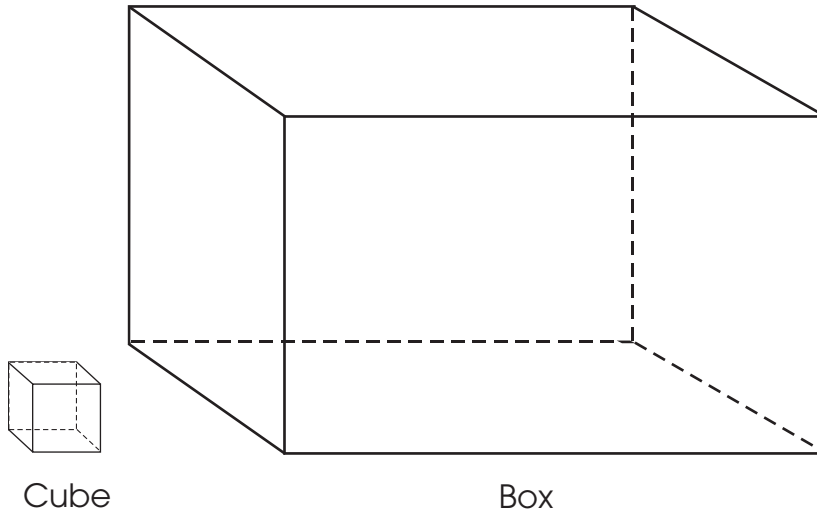
2. Darran made this net of a shape.



Which three-dimensional shape can he make from the net?



3. Carlos wants to know how many small cubes will fit in the box.



Which measurement of the box is Carlos finding when he fills it with cubes?

- A. the area of the box
- B. the length of the box
- C. the surface area of the box
- D. the volume of the box

4. This table shows the low temperature for five days.

Low Temperatures

Day	Temperature (°Celsius)
Monday	4°C
Tuesday	4°C
Wednesday	8°C
Thursday	5°C
Friday	4°C

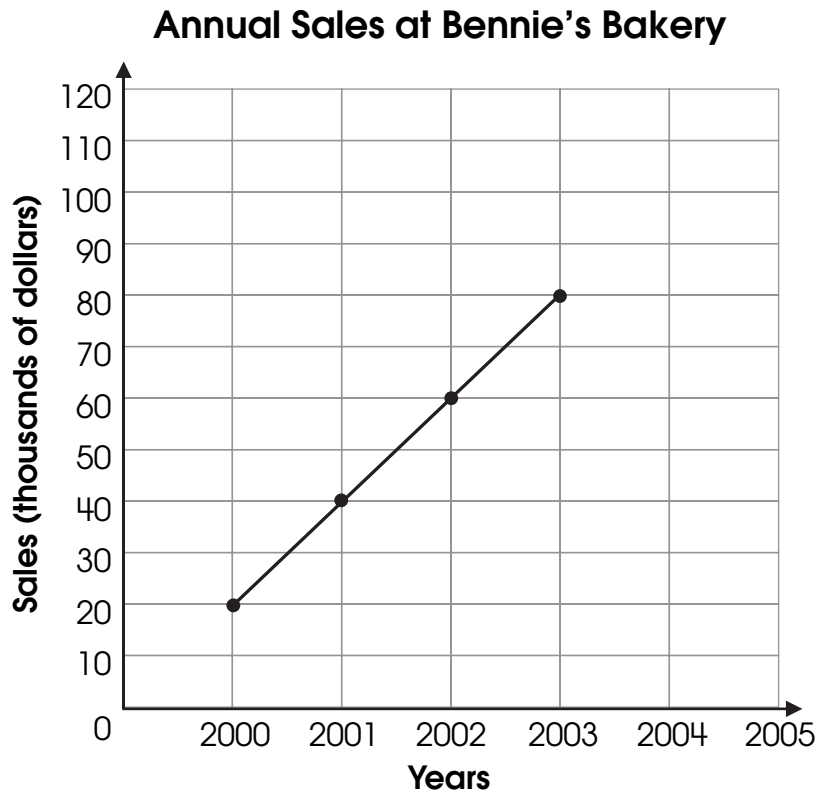
In your **Answer Document**, calculate the mean of the low temperatures. Explain what the mean indicates about these low temperatures. (2 points)



M

Mathematics

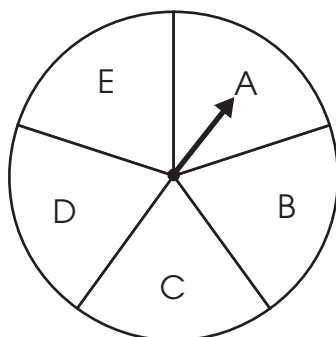
5. This graph shows annual sales at Bennie's Bakery during its first four years of business.



According to the graph, which prediction is reasonable for the annual sales in 2004?

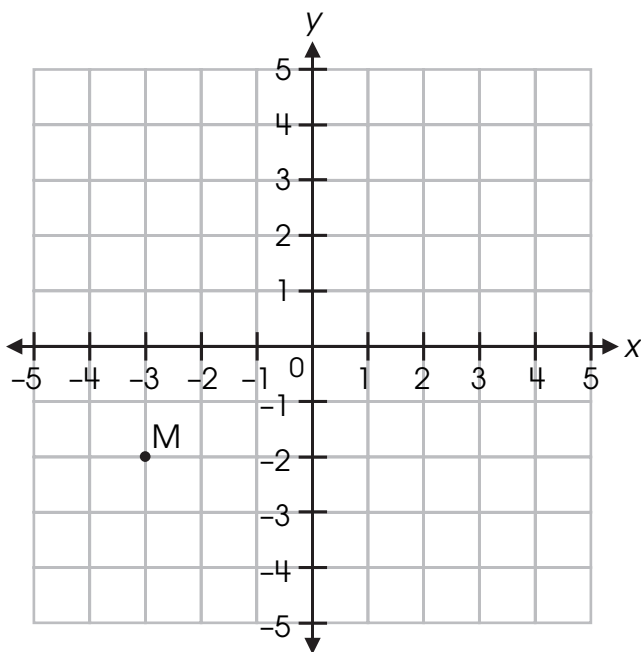
- A. \$ 80,000
- B. \$ 90,000
- C. \$100,000
- D. \$120,000

6. Tara will spin the spinner shown 100 times. She predicts the number of times the spinner will land on the letter A.



Which prediction is reasonable for the number of times the spinner will land on A?

- A. 3
 - B. 23
 - C. 53
 - D. 93
7. Point M is shown on the coordinate grid.



Which ordered pair represents point M?

- A. (-3, -2)
- B. (-3, 2)
- C. (3, -2)
- D. (3, 2)

M

Mathematics

8. After swim practice, each of the 30 swim team members gets 8 ounces of juice. The coach brought 2 gallons of juice to practice.

In your **Answer Document**, determine whether the coach brought enough juice for each team member to get 8 ounces. Show work to support your answer. (2 points)

9. Which list has three equivalent numbers?

A. $\frac{1}{4}$, 0.4, 40%

B. $\frac{1}{2}$, 0.25, 25%

C. $\frac{3}{5}$, 0.6, 60%

D. $\frac{6}{8}$, 0.68, 68%

10. A rectangle is shown.



What is the sum of the interior angles of this figure?

- A. 90°
B. 180°
C. 270°
D. 360°

11. Which problem situation is represented by the equation: $10 + 5x = 25$?

- A. Bob has \$25. He started with \$10. Each of his 5 friends gave him the same amount of money (x). How much money did each friend give Bob?
- B. Bob has \$25. He started with \$10. Each of his 3 friends gave him the same amount of money (x). How much money did each friend give Bob?
- C. Bob has \$10. He gave each of his 5 friends the same amount of money (x). How many friends have \$25?
- D. Bob has \$25. He gave each of his 15 friends the same amount of money (x). How much money did Bob give to each friend?

12. Carla hiked for $2\frac{1}{2}$ hours. How many minutes did she hike?

- A. 30 minutes
- B. 60 minutes
- C. 120 minutes
- D. 150 minutes

M

Mathematics

13. Pam is using a mix to make both pancakes and waffles. The ingredients for the two recipes are shown.

Pancakes	Waffles
$2\frac{1}{2}$ cups of mix	$2\frac{3}{4}$ cups of mix
$1\frac{1}{4}$ cups of milk	$1\frac{1}{2}$ cups of milk
1 tbs of oil	2 tbs of oil
2 eggs	2 eggs

In your **Answer Document**, find the total number of cups of mix that Pam will need to use. Use pictures, numbers or words to justify your answer.

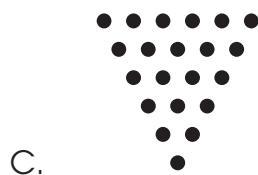
Pam has 3 cups of milk. Explain whether or not she has enough milk to make both recipes. Use pictures, numbers or words to justify your answer. (4 points)



14. A pattern is shown.



Which figure is next in this pattern?



M

Mathematics

15. Wes recorded temperatures for four days.

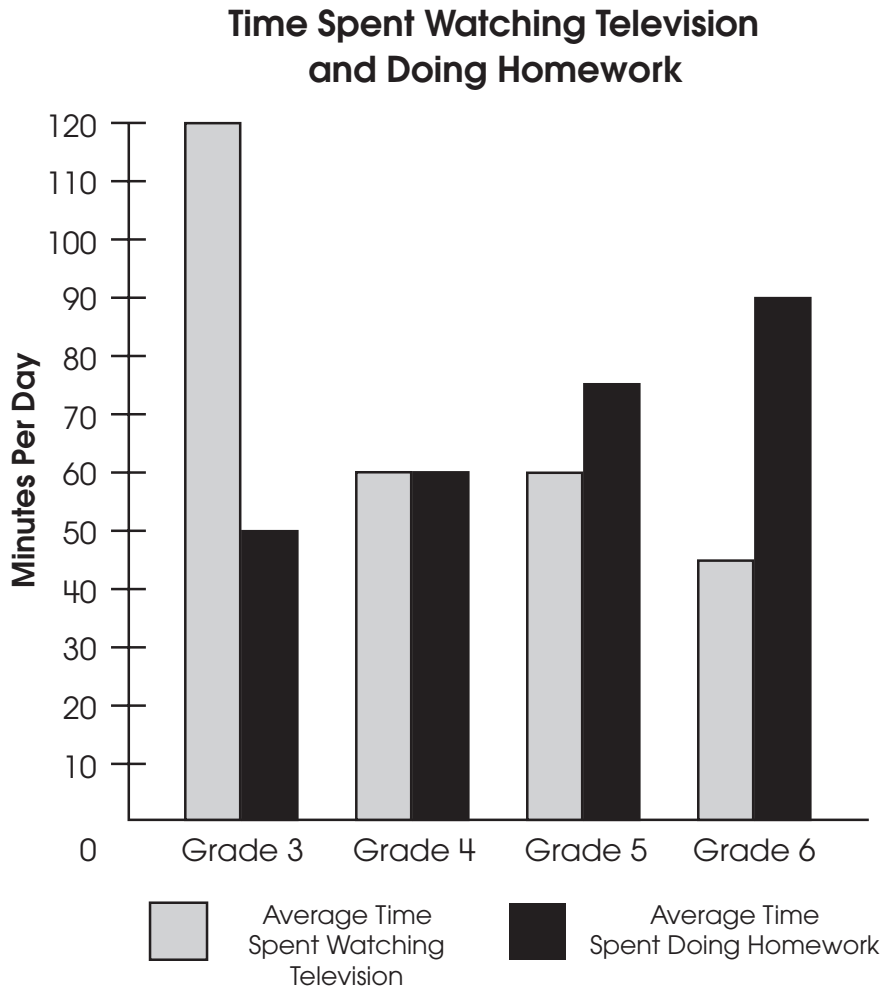
Friday	Saturday	Sunday	Monday
-15°F	-22°F	-9°F	-13°F

Which list shows these temperatures in order from coldest to warmest?

- A. -15°F , -22°F , -9°F , -13°F
- B. -9°F , -13°F , -15°F , -22°F
- C. -13°F , -9°F , -22°F , -15°F
- D. -22°F , -15°F , -13°F , -9°F
16. A circular table has a circumference of 18 feet.
- What is a reasonable approximation for the diameter of the table?
- A. 6 feet
- B. 9 feet
- C. 12 feet
- D. 21 feet
17. Robert earned \$4 each hour doing chores for his neighbors. He also earned \$20 working for his mother. Altogether, Robert earned \$80.

In your **Answer Document**, write an equation that shows this situation. Use your equation to find the number of hours Robert worked doing chores for his neighbors. (2 points)

18. The double bar graph shows the average amount of time students in four different grades spend watching television and doing homework each night.



Which grade spends the most time on homework each night?

- A. grade 3
- B. grade 4
- C. grade 5
- D. grade 6

M

Mathematics

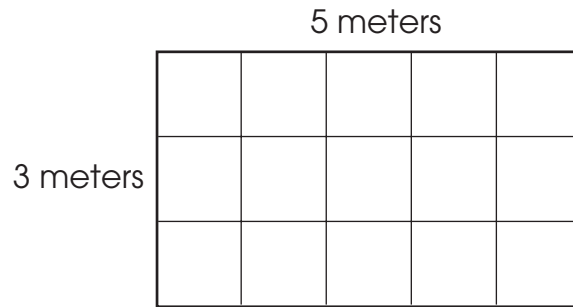
19. A cheese pizza costs \$7. Each topping has an additional cost. This table shows the cost of a cheese pizza with additional toppings.

Number of Toppings (n)	Total Cost of the Pizza (c)
1	\$9
2	\$11
3	\$13
4	\$15

Which equation represents this situation?

- A. $c = n + 2$
- B. $c = n + 8$
- C. $c = 7 + (n + 2)$
- D. $c = 7 + (n \times 2)$

20. The dimensions of Mike's garden are shown.



- Which expression shows how Mike could find the number of square meters in his garden?
- A. $3 + 5$
B. 3×5
C. $3 + 5 + 3 + 5$
D. $3 \times 5 \times 3 \times 5$
21. Troy is playing a game with a numbered cube and a coin. The cube is numbered from 1 to 6 and the coin has a heads side and a tails side. On each turn, the numbered cube is rolled and the coin is flipped.
- How many outcomes are possible?

- A. 2
B. 6
C. 8
D. 12

