
Introduction

INDIVIDUAL TESTS

The Standards Grades 5-6 MathBox contains pages of multiple-choice questions that correlate to the following NCTM Standards:

Standard 1	Mathematics as Problem Solving
Standard 2	Mathematics as Communication
Standard 3	Mathematics as Reasoning
Standard 4	Mathematical Connections
Standard 5	Number and Number Relationships
Standard 6	Number Systems and Number Theory
Standard 7	Computation and Estimation
Standard 8	Patterns and Functions
Standard 9	Algebra
Standard 10	Statistics
Standard 11	Probability
Standard 12	Geometry
Standard 13	Measurement

Answer keys for all questions are provided.

CUMULATIVE TESTS

The Standards Grades 5-6 MathBox includes four cumulative tests that are comprised of 13 questions, one from each standard. The level of difficulty is the same for all four tests. Teachers may wish to use these tests for pre and post testing or as a diagnostic tool. Answer keys provide solutions identified by a standard so that a teacher can determine where a student might need additional practice.

This MathBox can be used to:

- address the NCTM Standards
- review basic skills
- pinpoint areas of difficulty
- provide enrichment
- offer variety in homework or in-class assignments

Please note that several of the questions that address Standard 13 require the use of a metric ruler.

Other titles available in this series are:

Standards 3-4 MathBox
Standards 7-8 MathBox
Standards 9-12 MathBox

The questions in this MathBox are a subset of the questions that are available in the Standards Level 2 TestBank.

Circle the letter of the correct answer.

1 The Student Council needs \$750 for new game room equipment. It has \$467. Students raised \$230 at the car wash. How much more money is needed to buy the new equipment?

- A** \$47 **B** \$53
C \$63 **D** \$72

2 Which group of numbers has 6 as a common factor?

- A** 12, 30, 34 **B** 6, 12, 18
C 24, 30, 35 **D** 6, 24, 59

3 Music camp costs \$657. Tanya made payments of \$100, \$150, and \$37. How much more money does she need for camp?

- A** \$287 **B** \$370
C \$470 **D** \$944

4 Kurt needs 456 points in his science class to earn an A. He earned 231 points on his final report. He had 101 points before turning in the report. How many more points does he need to receive an A?

- A** 114 **B** 124
C 224 **D** 355

5 Ben needs \$87 to buy a rare baseball card. He sold three of his duplicate cards for \$16 each. How much more money does Ben need to buy the card he wants?

- A** \$39 **B** \$49
C \$55 **D** \$71

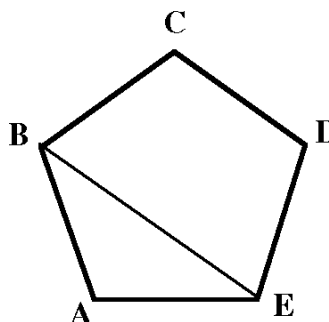
6 Mrs. B.'s science class sold bagels to earn \$450 for new microscopes. The first week the students made \$82, the second week \$125, and the third week \$106. How much must they earn in the fourth week to make their goal?

- A** \$243 **B** \$219
C \$147 **D** \$137

7 Karish buys six juice boxes, each containing 175 milliliters. After she fills a one-liter thermos from the boxes, how much juice remains?

- A** 20 mL **B** 50 mL
C 100 mL **D** 135 mL

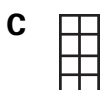
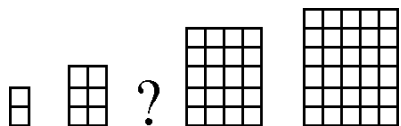
8 In addition to diagonal \overline{BE} , how many more diagonals can you draw?



- A** 2 **B** 3
C 4 **D** 5

Circle the letter of the correct answer.

6 Find the missing figure.



7 Which number in the sequence is incorrect?

1, 2, 4, 7, 11, 16, 21

A 7

B 11

C 16

D 21

8 "Add 2, multiply by 2, add 2, multiply by 2, . . ." Which number pattern fits this rule?

A 2, 4, 6, 8, 12, 14, 28

B 2, 4, 8, 10, 20, 22

C 1, 3, 6, 12, 14, 28

D 1, 2, 4, 8, 16, 18, 36

9 Choose the correct pattern for the rule: "Multiply by 3. Subtract 13."

A 10, 30, 17, 54, 41, 123

B 6, 18, 5, 15, 0, -13

C 8, 24, 11, 33, 20, 60

D 20, 60, 37, 101, 88, 264

10 Which series of numbers represents a pattern in which each number is one greater than the previous number?

A 3, 5, 7, 9

B 2, 4, 6, 8

C 2, 3, 4, 5

D 5, 6, 8, 9

11 If the rule is "Multiply by 2, add 1, multiply by 2, add 1, . . ." which number pattern is correct?

A 2, 3, 6, 7, 14, 15

B 3, 5, 6, 8, 9, 11, 12

C 2, 4, 5, 7, 8, 10

D 2, 4, 5, 10, 11, 22

12 Use the pattern rule to complete the table.

Rule: $\textcircled{N} = (\square + 1) \times 2$

\square	1	2	3	4	5
\textcircled{N}					

A 2, 4, 6, 8, 10

B 2, 4, 8, 16, 32

C 4, 6, 8, 10, 12

D 4, 5, 6, 7, 8

13 Use the pattern rule to complete the table.

Rule: $\square = 4 \cdot \textcircled{O} - 1$

\textcircled{O}	1	2	3	4	5
\square					19

A 3, 5, 7, 11

B 0, 1, 2, 3

C 3, 6, 9, 12

D 3, 7, 11, 15

Circle the letter of the correct answer.

19 Which is better than a loss of 5 yards in a football game?

- A** -2 yd **B** -6 yd
C -10 yd **D** -22 yd

20 5 cubed means

- A** $3 \cdot 5$ **B** $5 + 5 + 5$
C $5 \cdot 5 \cdot 5$ **D** $3 \cdot 5^3$

21 Which expression is the same as x^5 ?

- A** $x + x + x + x + x$
B $x \cdot x \cdot x \cdot x \cdot x$
C $x \cdot 5$
D $5 \cdot x$

22 $x \cdot y \cdot y \cdot y \cdot y$ is the same as

- A** $x \cdot y^4$ **B** $4 \cdot x \cdot y$
C $4 \cdot y + x$ **D** $(x \cdot y)4$

23 Which temperature is BELOW -40° ?

- A** -30° **B** -39°
C -50° **D** 40°

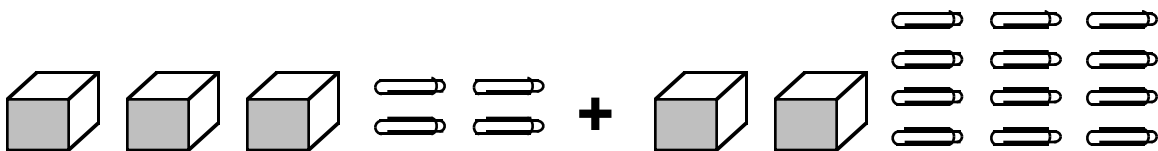
24 Lucas saved \$25. He loaned \$11 to Katrina. He sold his brother a used CD for \$8. How much money does Lucas have now?

- A** \$6 **B** \$22
C \$28 **D** \$34

25 A large square is made up of 81 square centimeters. How long is the side of the large square?

- A** 3 cm **B** 9 cm
C 12 cm **D** 18 cm

26 Each box contains 100 paper clips. How many paper clips are there in all?



- A** 504 **B** 512
C 516 **D** 518

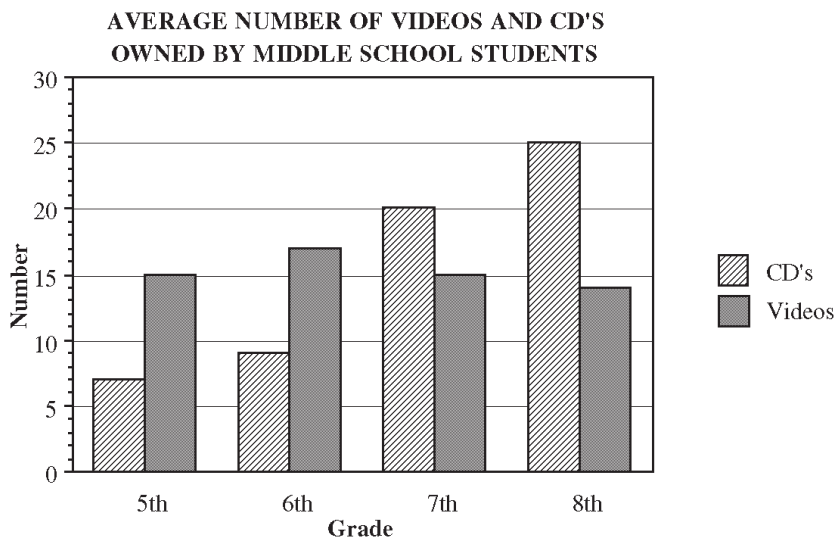
Circle the letter of the correct answer.

- 10** Eastside Beverage Company placed soda machines in three middle schools. The table shows the sales of each type of beverage for one week.

	Warren	Burke	Hammon
Diet cola	24	20	18
Regular cola	100	250	75
Iced tea	140	35	50
Apple juice	45	25	75
Orange juice	25	50	30
Bottled water	50	40	120

Select the correct statement.

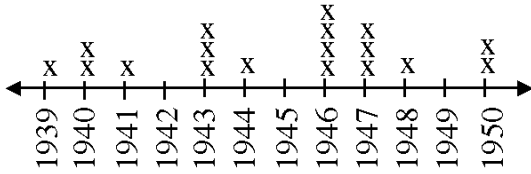
- A** Diet cola was the least popular item in all three schools.
 - B** Iced tea was the most popular at Hammon Middle School.
 - C** More than twice as much bottled water as cola was sold.
 - D** Bottled water was the least popular item at one school.
- 11** Use the information in the graph to choose the correct statement.



- A** The average number of videos owned decreases from each grade to the next.
- B** Eighth graders own more than three times as many CDs as 5th graders.
- C** The greatest difference in the number of videos and CDs owned is in the sixth grade.
- D** The change in video ownership from 5th to 8th grade is greater than the change in CD ownership.

Circle the letter of the correct answer.

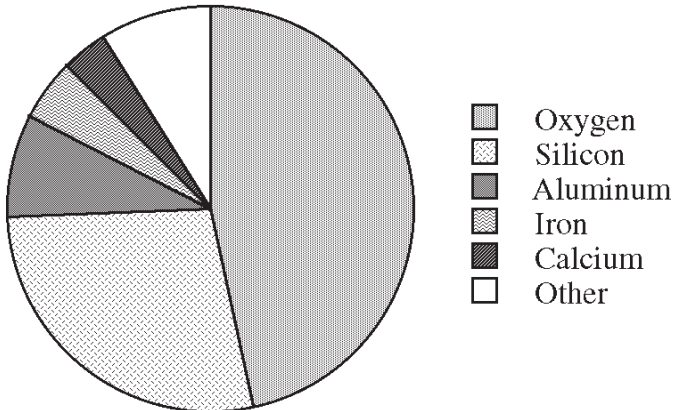
- 20** Joanne made a list of the birth years of her aunts and uncles. She displayed the data on a line plot.



How many of Joanne's relatives were born before 1945?

- A** 0 **B** 8
C 10 **D** 11
- 21** Which element forms the largest portion of the earth's crust?

ELEMENTS OF THE EARTH'S CRUST



- A** Oxygen **B** Silicon
C Aluminum **D** Iron

- 22** To determine the mean of these numbers,

12, 4, 14, 9, 6

- A** put them in order from least to greatest.
B subtract the least number from the greatest number.
C add them and multiply by 5.
D add them and divide by 5.