Minnesota MCA Grade 3 Math Practice

Exam Materials Pages 2 - 19

Answer Key Materials Pages 20 - 21



Minnesota Comprehensive Assessments-Series III

Mathematics Item Sampler Grade 3



ITEM SAMPLERS ARE NOT SECURE TEST MATERIALS. THIS ITEM SAMPLER TEST BOOK MAY BE COPIED OR DUPLICATED.

Minnesota Department of

Education

Mathematics Test General Directions

- This test contains four segments.
- You may use the grid paper at the back of this test book as scratch paper.
- For each question, choose the answer you think is best.
- Look at the sample that shows how to answer the question.

Sample Question Answered in Test Book:

$$20 - 8 =$$

A. 8

B. 10

C.) 12

D. 16

- You may not use a calculator for Segment 1.
- You may use a calculator for Segments 2, 3, and 4.
- When you finish a segment of the test, stop and check your answers. You may not work on a different segment of the test. You will be told when to begin the next segment.



Mathematics Test — Segment 1



- **1.** What is another way to show 4,608?
 - **A.** 46+8
 - **B.** 4,000+60+8
 - **C.** 4,000+ 600+ 8
 - **D.** 4,000+ 600+ 80

2. There are 23,650 people in a stadium.

The stadium can hold 1,000 more people.

How many people can the stadium hold?

- **A.** 22,650
- **B.** 23,750
- **C.** 24,650
- **D.** 33,650

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- **3.** What is 153,924 rounded to the nearest thousand?
 - **A.** 150,000
 - **B.** 153,000
 - **C.** 153,900
 - **D.** 154,000

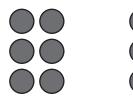
4. Subtract.

- **A.** 3,205
- **B.** 6,868
- **C.** 6,932
- **D.** 6,968

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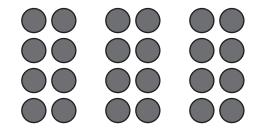


5. Which model shows 6×3 ?



В.





D.



6. Malik has 64 marbles.

He puts an equal number of marbles into each of 4 jars.

How many marbles are in each jar?

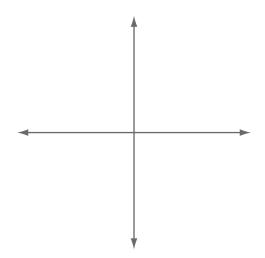
- 14 A.
- 15 В.
- C. 16
- 18 D.

ITEM SAMPLER. MAY BE DUPLICATED.

7. Multiply.

- **A.** 342
- **B.** 3,002
- **C.** 3,042
- **D.** 3,102

8. Two lines are shown.



Which describes the relationship between the lines?

- A. Parallel
- **B.** Perpendicular
- **C.** Square
- **D.** Straight

ITEM SAMPLER.
MAY BE DUPLICATED.

Mathematics Test — Segment 2



- **9.** Which number has a 5 in the ten thousands place?
 - **A.** 104,352
 - **B.** 365,971
 - **C.** 582,607
 - **D.** 951,480

10. Connie lists her scores from a video game.

Which list shows the scores listed from greatest to least?

- **A.** 14,613 13,345 14,301 14,087
- **B.** 14,613 14,301 14,087 13,345
- **C.** 14,087 14,613 14,301 13,345
- **D.** 13,345 14,087 14,301 14,613

ITEM SAMPLER.
MAY BE DUPLICATED.

11. Jeff had 1,350 glass beads and 695 clay beads.

He sold 138 glass beads and 47 clay beads.

How many beads did Jeff have left?

- **A.** 470
- **B.** 746
- **C.** 1,860
- **D.** 2,230

12. Cory has 2 red crayons and 1 blue crayon.

What fraction of Cory's crayons is red?

- **A.** $\frac{1}{3}$
- **B.** $\frac{1}{2}$
- **c.** $\frac{2}{3}$
- **D.** $\frac{3}{2}$

ITEM SAMPLER.
MAY BE DUPLICATED.



- 13. Gavin has 4 green apples and 4 red apples.Tara has 4 green apples and 8 red apples.Who has a greater fraction of green apples?
 - **A.** Gavin, because $\frac{4}{8}$ is greater than $\frac{4}{12}$
 - **B.** Tara, because $\frac{4}{12}$ is greater than $\frac{4}{8}$
 - C. Tara, because 12 is greater than 8
 - **D.** They both have the same fraction of green apples.

ITEM SAMPLER.
MAY BE DUPLICATED.

- **14.** Ellen has a vase of flowers.
 - $\frac{1}{8}$ are red.
 - $\frac{1}{3}$ are blue.
 - $\frac{1}{6}$ are purple.
 - $\frac{1}{4}$ are yellow.

Which is the greatest fraction?

- **A.** $\frac{1}{8}$
- **B.** $\frac{1}{3}$
- **C.** $\frac{1}{6}$
- **D.** $\frac{1}{4}$



15. A table is shown.

Input	Output		
2	12		
4	24		
8	48		

What is the output number when the input number is 12?

- **A.** 2
- **B.** 60
- **C.** 72
- **D.** 96

- **16.** Which story problem can be solved using the number sentence $2 \times n = 18$?
 - **A.** Tom had 18 pencils. He gave *n* pencils away and had 2 left over. How many pencils did Tom give away?
 - **B.** Alice bought *n* books and spent \$18. Each book cost \$2. How many books did Alice buy?
 - **C.** Maya had *n* rocks and 2 baskets. She put 18 rocks in each basket. How many rocks did Maya have?
 - **D.** Pedro saw 2 kinds of birds. He saw 18 robins and *n* crows. How many crows did Pedro see?

ITEM SAMPLER.
MAY BE DUPLICATED.

17. An equation is shown.

$$3 \times 7 = _{---} + 7$$

What number makes the number sentence true?

- **A.** 3
- **B.** 14
- **C.** 21
- **D.** 28

- **18.** Which shape has the fewest angles?
 - A. Hexagon
 - **B.** Octagon
 - C. Pentagon
 - D. Trapezoid



19. The perimeter of a rectangle is 16 inches.

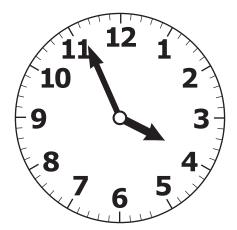
Its length is 5 inches.

What is its width?

- **A.** 3 inches
- **B.** 6 inches
- **C.** 11 inches
- **D.** 21 inches

ITEM SAMPLER.
MAY BE DUPLICATED.

20. Mai Ka starts reading a book at the time shown on the clock.



She stops reading 1 hour and 12 minutes later.

What time does Mai Ka stop reading?

- **A.** 4:08
- **B.** 4:44
- **C.** 5:04
- **D.** 5:08



21. A movie is 2 hours and 28 minutes long.

How many minutes long is the movie?

- A. 88 minutes
- **B.** 120 minutes
- C. 148 minutes
- **D.** 228 minutes

22. Gina buys a snack for 59¢.

She pays with a \$1 bill.

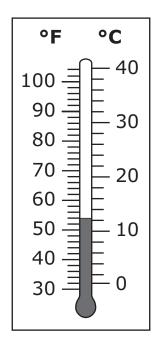
She receives the fewest possible coins in change.

What change does Gina receive?

- **A.** 1 quarter, 1 dime, 1 nickel, and 1 penny
- **B.** 2 quarters and 1 penny
- **C.** 2 quarters, 1 nickel, and 4 pennies
- **D.** 4 dimes and 1 penny

ITEM SAMPLER.
MAY BE DUPLICATED.

23. A thermometer is shown.

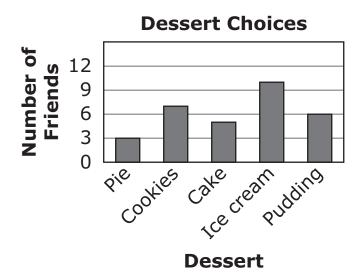


What temperature is shown on the thermometer?

- **A.** 11°C
- **B.** 12°F
- **C.** 54°C
- **D.** 54°F

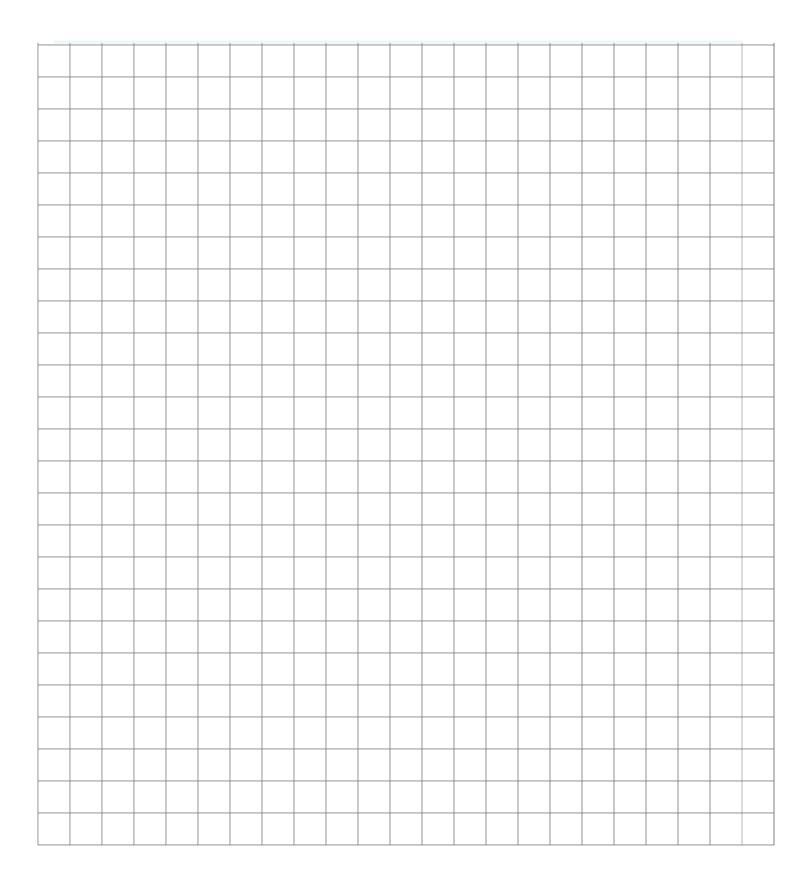
ITEM SAMPLER. MAY BE DUPLICATED.

24. Leon asked his friends to choose a favorite dessert.



How many more friends chose ice cream than pie?

- **A.** 2
- **B.** 5
- **C.** 7
- **D.** 10



Grade 3 Teacher's Guide

MCA-III Item Sampler Answer Key Grade 3 Math

Itom #	Correct	Item	Ctrond	Ctondord	Donohmark
Item #	Answer	Туре	Strand	Standard	Benchmark
1	С	MC	1	1	01
2	С	MC	1	1	03
3	D	MC	1	1	04
4	В	MC	1	2	01
5	D	MC	1	2	03
6	С	MC	1	2	04
7	С	MC	1	2	05
8	В	MC	3	1	01
9	D	MC	1	1	02
10	В	MC	1	1	05
11	С	MC	1	2	02
12	С	MC	1	3	01
13	Α	MC	1	3	02
14	В	MC	1	3	03
15	С	MC	2	1	01
16	В	MC	2	2	01
17	В	MC	2	2	02
18	D	MC	3	1	02
19	Α	MC	3	2	02
20	D	MC	3	3	01
21	С	MC	3	3	02
22	А	MC	3	3	03
23	D	MC	3	3	04
24	С	MC	4	1	01

Grade 3 Teacher's Guide

Item # — The number of the question in the Item Sampler.

Correct Answer — Answers to multiple-choice questions are listed.

Item Type — Multiple Choice **(MC)**

Strand — In mathematics, the MCA-III measures four strands:

- 1. Number and Operation
- 2. Algebra
- 3. Geometry and Measurement
- 4. Data Analysis and Probability

Standard — Each strand has one or more standards

Benchmark — Each standard has one or more benchmarks. See the Academic Standards or test specification for further explanation of each benchmark.

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