

3

Mississippi

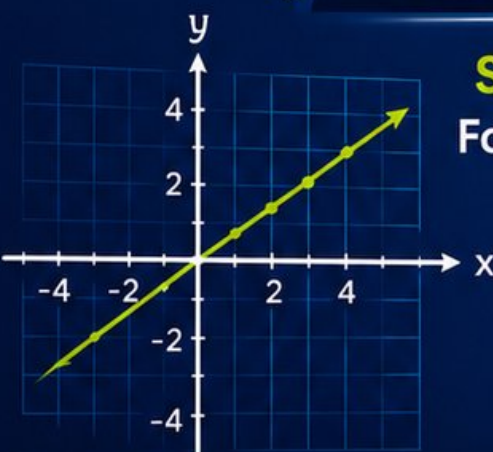
MAAP

GRADE 8

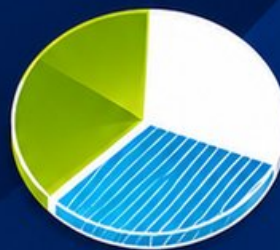
MATH

PRACTICE TESTS

Standards Aligned Problem Solving
For Comprehensive Assessment Programs



$$V = s^3$$



$$y = mx + b$$
$$2x + 5 = 13$$
$$x = 4$$



3 PRINTED TESTS



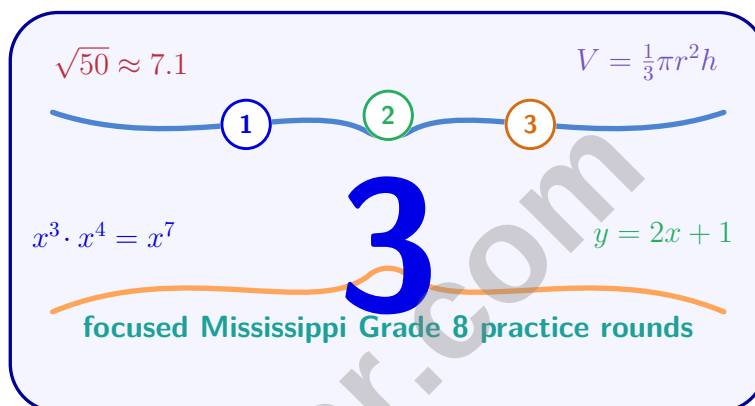
2 ONLINE TESTS



Use these **two additional online practice tests** for extra review after the printed tests in this book.

3 Mississippi MAAP Grade 8 Math Practice Tests

Focused Practice for MAAP Grade 8 Math Readiness



Three complete 40-question Grade 8 MAAP practice rounds with real numbers, exponents, scientific notation, equations, functions, transformations, geometry, data analysis, probability, answer keys, and clear explanations for every item.

Jay Daie and Reza Nazari



Copyright ©

Testinar Inc



Published by Testinar Inc

Testinar.com

All rights reserved. No part of this publication may be reproduced, distributed, or transmitted in any form or by any means, including photocopying, recording, or other electronic or mechanical methods, without the prior written permission of the author, except in the case of brief quotations embodied in critical reviews and certain other noncommercial uses permitted by copyright law, including Section 107 or 108 of the 1976 United States Copyright Act.

This publication is independently produced and has no official connection to any state, district, or national testing program.

Test names and organizational names used herein are the property of their respective trademark holders.



Copyright ©

Welcome, Mississippi Grade 8 Problem Solver!

Three focused rounds for sharper MAAP math thinking

This book gives you three full Grade 8 MAAP math practice tests. Each round is built to help you recognize structure, reason with real numbers and exponents, analyze linear relationships, connect equations with graphs, and explain your thinking with care.

Your Mississippi Practice Promise

I will read every question carefully, choose a strategy that fits, write enough work to prove my answer, and use corrections as training for the next test.

Read

Model

Verify

How to Use This Book

A three-session plan for confident Grade 8 review

1. **Warm up with the review pages.** Notice the big ideas before starting the tests.
2. **Complete one test at a time.** Treat each 40-question round like a real practice session.
3. **Show your reasoning.** Jot an exponent rule, equation, graph, transformation, diagram, or quick estimate when it helps.
4. **Correct actively.** Rework missed items before reading the explanation.
5. **Choose the next target.** After each test, name one skill and one habit to improve.

Mississippi review rhythm: Work a test, score it, study your misses, then come back ready for the next round with one clear goal.



What Is Inside?

Three MAAP tests, 120 questions, and a focused review path

Part	What You Will Practice
Tests 1–2	Real numbers, exponents, scientific notation, equations, and careful reading.
Test 3	Functions, systems, transformations, geometry, data analysis, and multi-step problem solving.
Answer Pages	Compact keys and explanations that show why each answer works.

The tests are mixed on purpose. Grade 8 success means recognizing which idea is being tested even when the next question changes format.



Scan me!
For more practice
& answers

Table of Contents



Testinar.com

1) A line segment from $(0, 0)$ to $(4, 4)$ is dilated by scale factor 0.5 from the origin. Where does it map to?

- ☐ A. From $(0, 0)$ to $(2, 2)$ ☐ C. From $(2, 2)$ to $(4, 4)$
☐ B. From $(0, 0)$ to $(8, 8)$ ☐ D. Remains the same

2) A student finds the surface area of a triangular prism with a right-triangle base (legs 3 cm and 4 cm, hypotenuse 5 cm) and prism height 10 cm. The student calculates: Base areas: $2 \times \frac{1}{2}(3)(4) = 12 \text{ cm}^2$. Lateral: $10 \times 3 + 10 \times 4 + 10 \times 5 = 120 \text{ cm}^2$. Total: $12 + 120 = 132 \text{ cm}^2$. Is this correct?

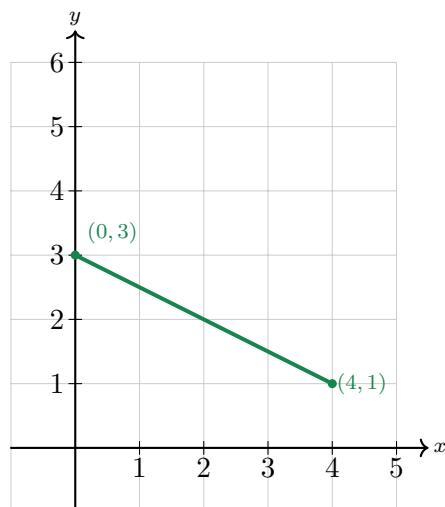
- ☐ A. Yes, the calculation is correct are only 12 cm^2 total, so the answer
☐ B. No, the lateral area should be is 132 cm^2 (correct)
 $12 + 120 = 132$ but the student forgot ☐ D. The student used the wrong
the second base formula for the triangular base area
☐ C. No, the lateral area is calculated
correctly but the two triangular bases

3) A hexagon is translated by the vector $(3, -2)$ and then rotated 90° counterclockwise about the origin. How many sides does the resulting figure have?

- ☐ A. 3 ☐ C. 12
☐ B. 9 ☐ D. 6



Scan me!
For more practice
& answers



4)

What is the equation of the line shown?

☐ A. $y = -\frac{1}{2}x + 3$

☐ C. $y = 2x + 3$

☐ B. $y = \frac{1}{2}x + 3$

☐ D. $y = -2x + 3$

- 5) The mass of the Sun is approximately 2×10^{30} kg. How many times more massive is the Sun than Earth, which has mass 6×10^{24} kg?

- 6) A rectangle has a length that is 3 meters more than its width. If the perimeter is 26 meters, which equation represents this, where w is the width?

☐ A. $w + (w + 3) = 26$

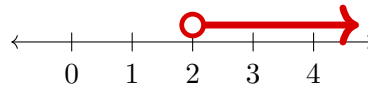
☐ C. $w(w + 3) = 26$

☐ B. $3w = 26$

☐ D. $2w + 2(w + 3) = 26$



7) Solve and graph: $-2x + 3 < -1$. Which describes the graph?

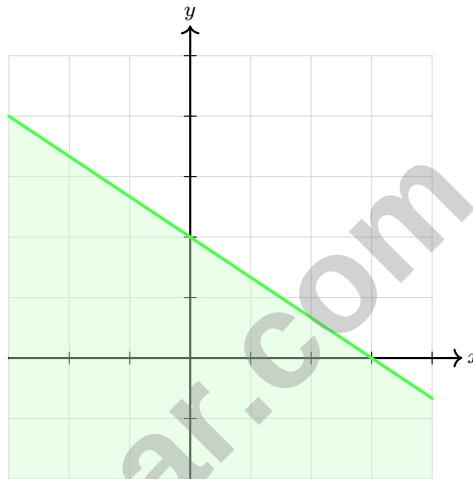


☐ A. $x \geq 2$ with closed circle

☐ C. $x \leq 2$ with closed circle

☐ B. $x < 2$ with open circle

☐ D. $x > 2$ with open circle



8)

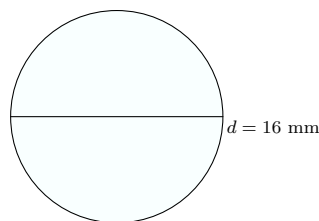
What is the inequality?

☐ A. $y > -\frac{2}{3}x + 2$

☐ C. $y \geq -\frac{2}{3}x + 2$

☐ B. $y < -\frac{2}{3}x + 2$

☐ D. $y \leq -\frac{2}{3}x + 2$



9)

A sphere has a diameter of 16 mm. What is its approximate volume? (Use $\pi \approx 3.14$.)

☐ A. 268.08 mm^3

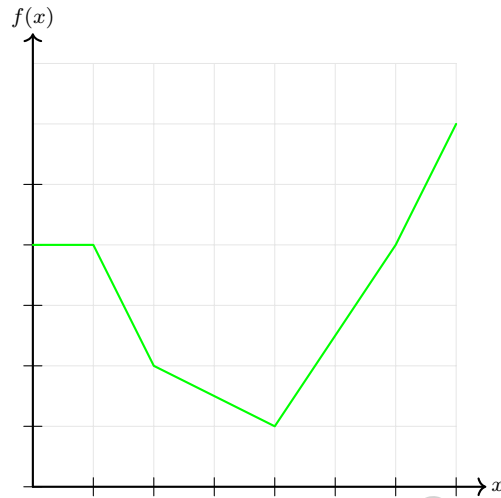
☐ C. 2143.57 mm^3

☐ B. 1072.33 mm^3

☐ D. 4289.33 mm^3



Scan me!
For more practice
& answers



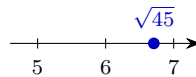
1)

A piecewise function is shown. Which interval is decreasing?

☐ A. From $x = -2$ to $x = -1$
☐ C. From $x = 2$ to $x = 4$
☐ B. From $x = -1$ to $x = 2$
☐ D. From $x = 4$ to $x = 5$

2) A rectangle's length is 4 cm more than its width. If the perimeter is 32 cm, what is the length?

3) Where on a number line would $\sqrt{45}$ be located?


☐ A. Between 5 and 6

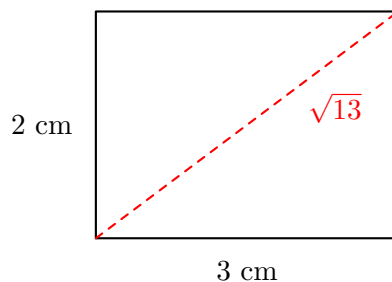
☐ C. Between 6 and 7

☐ B. Between 4 and 5

☐ D. At 7


Scan me!
For more practice
& answers

- 4) A rectangle has dimensions 2 cm by 3 cm. The diagonal is $\sqrt{13}$ cm. What is the best estimate of the diagonal?



- ☐ A. 3.0 cm ☐ C. 4.2 cm
☐ B. 6.5 cm ☐ D. 3.6 cm
- 5) How many times greater is 6×10^8 than 3×10^6 ?
- ☐ A. 2 times ☐ C. 200 times
☐ B. 20 times ☐ D. 2,000 times

0.789

Non-repeating digits: 1

Repeating-block digits: 2

Denominator form: $\frac{?}{990}$

6)

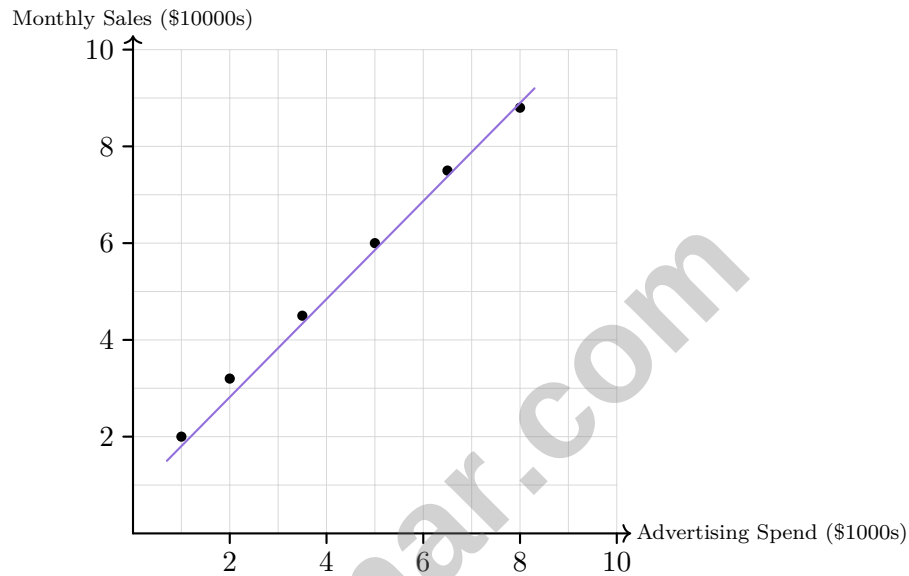
What goes in the numerator when converting $0.7\overline{89}$?

- ☐ A. $7 + 89 = 96$ ☐ C. 89
☐ B. 789 ☐ D. $789 - 7 = 782$



1) A student claims that $\sqrt{49} + \sqrt{64} = \sqrt{113}$. Is this correct?

- ☐ A. Yes, because $49 + 64 = 113$
☐ C. No, because square roots cannot be added
- ☐ B. Yes, but only if we simplify the radicals first
- ☐ D. No, because $\sqrt{49} + \sqrt{64} = 15$



2)

A business tracks advertising spend versus monthly sales. Based on the trend line, what is the approximate y -intercept (sales with no advertising)?

- ☐ A. \$30,000
- ☐ B. \$20,000
- ☐ C. \$10,000
- ☐ D. \$0

3) A father is currently 32 years older than his son. In 8 years, the father will be twice as old as the son. What is the son's current age?

- ☐ A. 16
- ☐ B. 20
- ☐ C. 24
- ☐ D. 28



4) If $h(x) = -x + 4$, what is $h(1)$?

☐ A. 3

☐ B. 5

☐ C. -3

☐ D. 4

5) Which product is rational?

☐ A. $\sqrt{6} \times \sqrt{10}$

☐ B. $\sqrt{3} \times \sqrt{5}$

☐ C. $\sqrt{7} \times \sqrt{11}$

☐ D. $\sqrt{2} \times \sqrt{2}$

6) To the nearest whole number, $\sqrt{30} \approx$?

☐ A. 7

☐ B. 6

☐ C. 4

☐ D. 5

7) A car travels 180 miles in 3 hours. What is the slope (speed in miles per hour)?

8) Which is the best estimate of $\pi + \sqrt{5}$?

☐ A. 4.6

☐ B. 7.8

☐ C. 6.0

☐ D. 5.4

9) Which of the following equals 3.8×10^2 ?

☐ A. 38

☐ B. 38,000

☐ C. 3,800

☐ D. 380



Scan me!
For more practice
& answers

Mississippi MAAP Grade 8 Practice Test Answer Keys**How to use this section with a Grade 8 student:**

1. check the answer first and circle any item that needs another look
2. retry the problem with fresh work before reading the explanation
3. write one short lesson learned from each missed or guessed item

A strong review routine turns every correction into a sharper plan for the next Mississippi MAAP practice test.

Testinar.com



Practice Test Answers and Explanations

Practice Test 1 Answers and Explanations

- 1) **Choice A is correct.** (8.G.4) Both endpoints scale by 0.5: $(0, 0) \rightarrow (0, 0)$ and $(4, 4) \rightarrow (2, 2)$. The segment from origin to $(2, 2)$ is half the original length and direction.
- 2) **Choice A is correct.** (8.G.9) The student correctly calculated the two triangular bases as $2 \times \frac{1}{2}(3)(4) = 12 \text{ cm}^2$. The lateral area is $10(3 + 4 + 5) = 120 \text{ cm}^2$. Total surface area is $12 + 120 = 132 \text{ cm}^2$, which is correct.
- 3) **Choice D is correct.** (8.G.1) Both translation and rotation are rigid transformations that preserve the shape. The figure remains a hexagon with 6 sides.
- 4) **Choice A is correct.** (8.EE.6) The y -intercept is 3. Using $(4, 1)$: slope $= \frac{1-3}{4-0} = \frac{-2}{4} = -\frac{1}{2}$.
- 5) **The correct answer is 3.33×10^5 .** (8.EE.3) Divide: $\frac{2 \times 10^{30}}{6 \times 10^{24}} = \frac{2}{6} \times 10^6 = \frac{1}{3} \times 10^6 \approx 3.33 \times 10^5$.
- 6) **Choice D is correct.** (8.EE.7) Perimeter $= 2(\text{length}) + 2(\text{width}) = 2(w + 3) + 2w = 26$.
- 7) **Choice D is correct.** (8.EE.7b) Subtract 3: $-2x < -4$. Divide by -2 (FLIP): $x > 2$. Open circle and right ray.
- 8) **Choice D is correct.** (8.EE.8b) SOLID line and shading BELOW the negatively-sloped line indicate $y \leq -\frac{2}{3}x + 2$.
- 9) **Choice C is correct.** (8.G.9) Radius $r = 8 \text{ mm}$. $V = \frac{4}{3}\pi r^3 = \frac{4}{3} \times 3.14 \times 512 = 2143.57 \text{ mm}^3$.
- 10) **Choice D is correct.** (8.EE.5) At 0% APR during the promo period, no interest accrues. Balance after 18 months is still \$1,200.
- 11) **Choice C is correct.** (8.EE.1) Addition/subtraction of powers requires like terms with same base AND exponent. $a^3 + a^2$ are not like terms.
- 12) **The correct answer is $\frac{34}{99}$.** (8.NS.A) Set $x = 0.\overline{34}$, so $100x = 34.\overline{34}$. Subtracting: $100x - x = 34$, giving $99x = 34$ and $x = \frac{34}{99}$.
- 13) **Choice C is correct.** (8.EE.4) Divide: $\frac{9 \times 10^{-6}}{3 \times 10^{-8}} = \frac{9}{3} \times 10^{-6-(-8)} = 3 \times 10^2$.
- 14) **Choice D is correct.** (8.EE.8a) Substitute $x = y - 4$ into $2x + 3y = 2$: $2(y - 4) + 3y = 2$, so $2y - 8 + 3y = 2$, giving $5y = 10$ and $y = 2$. Then $x = 2 - 4 = -2$. Solution: $(-2, 2)$.
- 15) **Choice C is correct.** (8.F.1) Each barcode corresponds to a product, but the price can change multiple times, giving the barcode multiple price outputs. The other options satisfy the one-input-one-output rule.
- 16) **Choice A is correct.** (8.F.2) $S_1(4) = 80$. S_2 slope: $(56 - 50)/1 = 6$, so $S_2(4) = 50 + 6(4) = 74$. Since $80 > 74$, S_1 has more.
- 17) **Choice A is correct.** (8.F.3) First differences: $4 - 0 = 4$, $8 - 4 = 4$, $12 - 8 = 4$. Since x changes by 2 each step, slope $= \frac{4}{2} = 2$.
- 18) **The correct answer is A,C.** (8.NS.1) Statement A is true because rational numbers are closed under addition. Statement C is true because any terminating decimal, such as $0.75 = \frac{3}{4}$, is rational. Statement B is false because two irrational numbers can multiply to a rational number, for example $\sqrt{2} \times \sqrt{8} = 4$. Statement D is false because integers are rational. Statement E is false because perfect squares have rational square roots, not irrational ones.
- 19) **Choice B is correct.** (8.F.B) Slope: $\frac{16-12}{2-0} = \frac{4}{2} = 2 \text{ cm/week}$. (Or: from week 0 to 4, height goes from 12 to 20, a change of 8 cm in 4 weeks $= 2 \text{ cm/week}$.)
- 20) **Choice B is correct.** (8.G.2) If the quadrilaterals are congruent with P corresponding to T, then $\angle P$ must equal $\angle T$. Since $75^\circ \neq 85^\circ$, the claim of congruence is false.
- 21) **Choice B is correct.** (8.G.3) A 270° counterclockwise rotation (or 90° clockwise) maps $(x, y) \rightarrow (y, -x)$.
- 22) **Choice B is correct.** (8.G.5) Sum of angles: $y + 2y + 3y = 180$, so $6y = 180$ and $y = 30^\circ$.
- 23) **Choice A is correct.** (8.G.6, 8.G.7) From $(\sqrt{2})^2 + (\sqrt{6})^2 = c^2$, we get $2 + 6 = 8$, so $c = \sqrt{8} = \sqrt{4 \cdot 2} = 2\sqrt{2}$.
- 24) **The correct answer is 9.4.** (8.NS.2) The side length is $\sqrt{88}$. Since $9^2 = 81$ and $10^2 = 100$, and 88 is closer to 81, we estimate $\sqrt{88} \approx 9.38 \approx 9.4$.
- 25) **Choice A is correct.** (8.G.8) $d = \sqrt{(5-0)^2 + (12-0)^2} = \sqrt{25 + 144} = \sqrt{169} = 13$.
- 26) **Choice C is correct.** (8.G.7) Alternate interior angles are congruent when a transversal cuts parallel lines. So $w = 95^\circ$.



Scan me!
For more practice
& answers

Hi, Grade 8 Math Star!

◇ You finished this practice set with real effort. Grade 8 math asks you to connect ideas, explain your thinking, and stay steady through multi-step problems. ◇

★ **Remember this:** Every page you completed helped build stronger habits: reading carefully, choosing a method, showing work, and checking whether the answer makes sense. You practiced across 3 full Grade 8 practice tests, and that repeated effort matters. ★

What You Built

- **Focus:** You stayed with challenging questions.
- **Accuracy:** You learned to slow down when details matter.
- **Reasoning:** You practiced explaining why a method works.
- **Readiness:** You are more prepared than when you started.

Grade 8 test-day tip: Before test day, review the questions that made you pause. Those are the best teachers.

If you want to share something or ask a question, please email me at jay@testinar.com.

Jay Daie

Your Grade 8 Math Friend

PRACTICE TODAY, ACHIEVE TOMORROW!

GRADE
8

Give your child the edge they need with **3 full-length** Grade 8 Math practice tests that reflect real test formats and cover all key math standards. Perfect for building skills, boosting confidence, and preparing for success on test day!



WHAT'S INSIDE?



Standards-Aligned Practice

Questions designed to cover essential Grade 8 math standards.



Variety of Question Types

Multiple-choice, short answer, and more to build well-rounded skills.



Real-World Applications

Engaging problems that connect math to everyday life.



Step-by-Step Progress

Track improvement and build confidence with every test.



Build Skills & Boost Confidence

Strengthen understanding and feel prepared for test day.

COVERS ALL ESSENTIAL TOPICS

- ✓ The Number System
- ✓ Expressions & Equations
- ✓ Ratios & Proportional Relationships
- ✓ Linear Equations
- ✓ Functions
- ✓ Geometry
- ✓ Measurement & Data
- ✓ Statistics & Probability
- ✓ Pythagorean Theorem
- ✓ Volume & Surface Area
- ✓ Transformations
- ✓ Inequalities
- ✓ Data Analysis & Graphing
- ✓ And More!



2 Extra Online Practice Tests Included!

Use these two additional online practice tests for extra review after the printed tests.

testinar.com/math8

PRACTICE. PREPARE. SUCCEED.



Testinar

More Practice. More Confidence.
Better **Results.**