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Arizona AASA

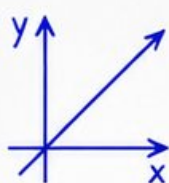
GRADE

7

MATH

PRACTICE TESTS

Standards Aligned
Problem Solving
For Comprehensive
Assessment Programs



$$y = mx + b$$

$$\frac{2}{3} + \frac{1}{6} = \frac{5}{6}$$



$$V = \pi r^2 h$$



5 PRINTED
TESTS



2 ONLINE
TESTS

USE THESE TWO
ADDITIONAL ONLINE
PRACTICE TESTS
FOR EXTRA REVIEW AFTER
THE PRINTED TESTS
IN THIS BOOK.



Build
Confidence



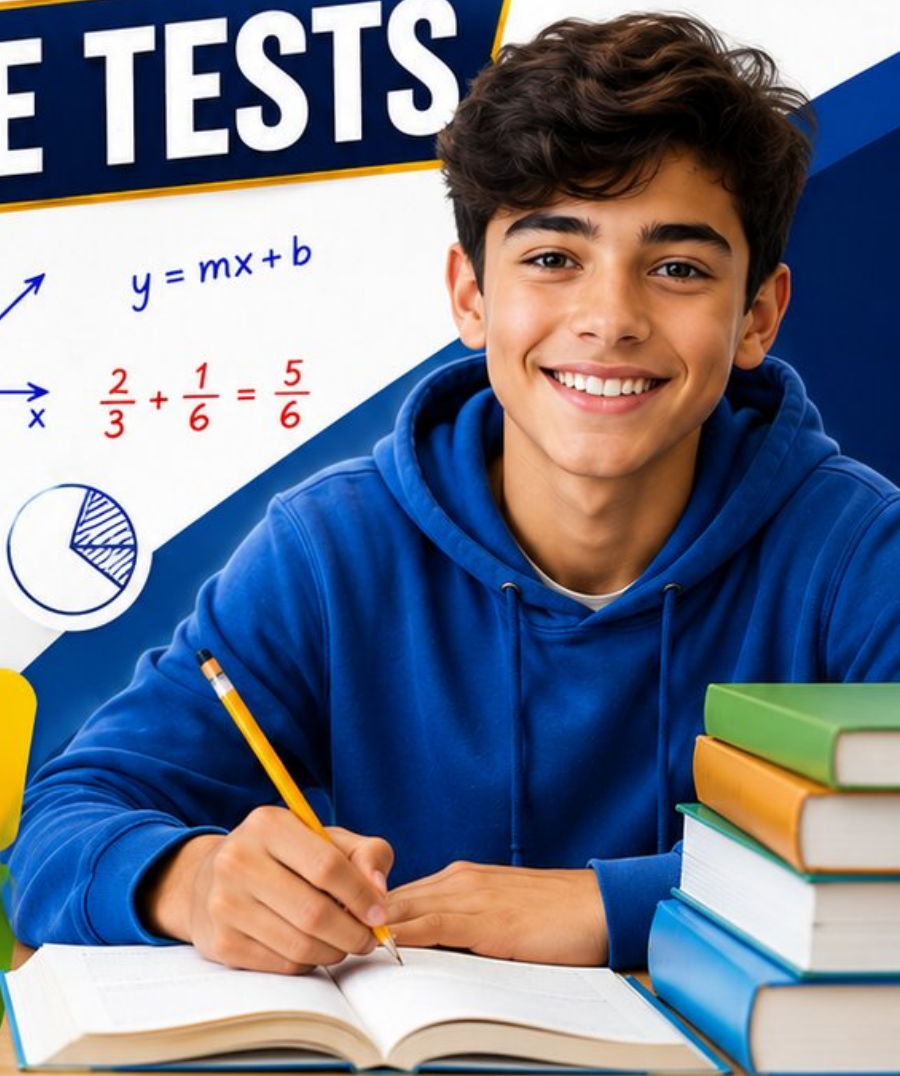
Strengthen
Math Skills



Detailed Answers
& Explanations



Improve Test
Performance



5 Arizona AASA Grade 7 Math Practice Tests

Standards-Based Practice with Guided Review and Clear Explanations



Five complete 40-question Grade 7 AASA practice rounds with proportional relationships, percents, rational numbers, expressions, equations, geometry, statistics, probability, answer keys, and clear explanations for every item.

Jay Daie and Reza Nazari



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Welcome, Arizona Grade 7 Problem Solver!

Five focused rounds for sharper AASA math thinking

This book gives you five full Grade 7 AASA math practice tests. Each round is built to help you notice structure, compare quantities, use proportional reasoning, handle rational numbers, and explain your thinking with care.

Your Arizona 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 five-session plan for confident Grade 7 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 a proportion, equation, diagram, number line, 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.

Arizona 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?

Five AASA tests, 200 questions, and a focused review path

Part	What You Will Practice
Tests 1–2	Proportional relationships, unit rates, percents, rational-number operations, and careful reading.
Tests 3–5	Expressions, equations, inequalities, scale drawings, geometry, data, probability, and multi-step problem solving.
Answer Pages	Compact keys and explanations that show why each answer works.

The tests are mixed on purpose. Grade 7 success means recognizing which idea is being tested even when the next question changes format.



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& answers

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- 1) A savings account grows from \$600 to \$684 in one year with annual compound interest. What is the interest rate?
- ☐ A. 10% ☐ C. 14%
- ☐ B. 12% ☐ D. 15%
- 2) A young entrepreneur receives a business loan of \$8500 at 8.5% simple interest. If the loan is for 18 months, what is the total amount that must be repaid?
- ☐ A. \$10725 ☐ C. \$10187.50
- ☐ B. \$9722.50 ☐ D. \$9587.50
- 3) What is $12 + (-5)$?
- ☐ A. 7 ☐ C. 17
- ☐ B. -7 ☐ D. -17
- 4) Evaluate: $-1 - (-5)$
- ☐ A. -6 ☐ C. -4
- ☐ B. 6 ☐ D. 4
- 5) A survey shows that in a group of 240 people, 22% prefer tea over coffee. How many people prefer tea?
- ☐ A. 22 ☐ C. 52.8
- ☐ B. 48 ☐ D. 66
- 6) A lemonade stand charges \$0.75 per cup. What is the constant of proportionality for revenue per cup?



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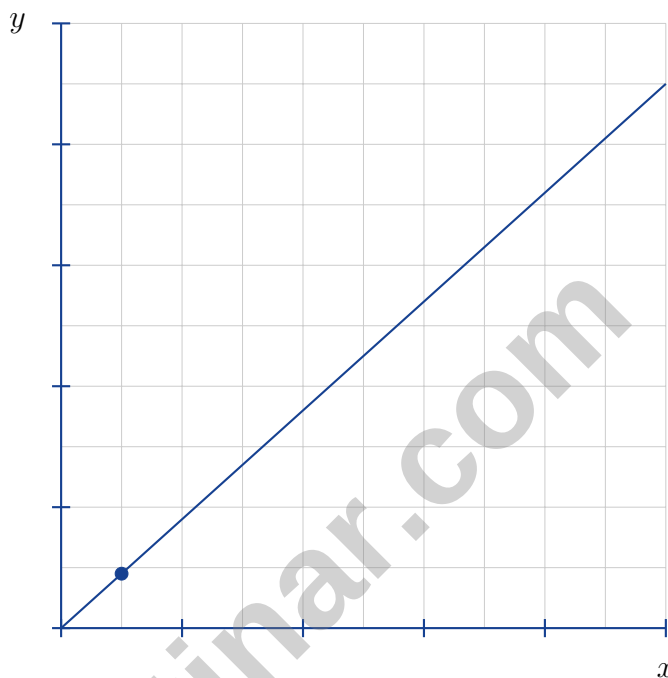
7) A store marks up a product by \$5 on a cost of \$25. What is the selling price?

☐ A. \$35

☐ C. \$20

☐ B. \$45

☐ D. \$30



8)

Based on the graph, what is the value of y when $x = 5$?

☐ A. 0.9

☐ C. 5

☐ B. 9

☐ D. 4.5

9) A blueprint for a kitchen has dimensions of 3.2 inches by 2.8 inches with a scale of 1 inch = 3 feet. What is the actual area of the kitchen in square feet?



- 10) A jacket on sale costs \$51. The original price was \$60. What percent discount was applied?

- 11) A company has 250 employees. If 12% work in the office and the rest work remotely, how many work remotely?

- ☐ A. 30 ☐ C. 162
☐ B. 88 ☐ D. 220

- 12) Evaluate $4x - y + 2$ when $x = 3$ and $y = 5$.

- ☐ A. 5 ☐ C. 19
☐ B. 7 ☐ D. 9

- 13) Runner A covers $\frac{1}{3}$ mile in $\frac{1}{20}$ hour. Runner B covers $\frac{2}{5}$ mile in $\frac{1}{12}$ hour. Which runner is faster?

- ☐ A. Runner A at $\frac{1}{60}$ mph ☐ C. They run at the same speed
☐ B. Runner B at $\frac{24}{5}$ mph ☐ D. Runner A at $\frac{20}{3}$ mph

- 14) A store charges \$12 per shirt. Create a table for 1, 2, 3, and 4 shirts. Does this represent a proportional relationship?

Shirts	1	2	3	4
Cost (\$)	12	24	36	48

- ☐ A. Cannot determine ☐ C. Yes, constant ratio is 1
☐ B. No, the cost increases too fast ☐ D. Yes, constant ratio is 12



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\$20 fee	$\$4.50n$
----------	-----------

Total cost T

1)

A dance studio charges per-class fees shown in the bar model. If there's a \$20 registration fee and \$4.50 per class, which equation shows the total cost T for n classes?

☐ A. $T = 4.50n + 20$

☐ C. $T = 4.50 + 20n$

☐ B. $T = 20n + 4.50$

☐ D. $T = (4.50 + 20)n$

2) In a random sample of 50 students, 18 said they prefer science. About how many students in the whole school of 800 are likely to prefer science?

☐ A. 180

☐ C. 324

☐ B. 288

☐ D. 360

3) A graph shows the line passing through points $(0, 0)$ and $(2, 8)$. What is the constant of proportionality?

☐ A. $k = 2$

☐ C. $k = 8$

☐ B. $k = 6$

☐ D. $k = 4$

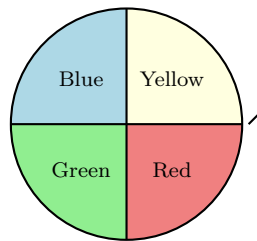
4) Simplify $-5x + 3x + 2y - y$, then evaluate when $x = 1$ and $y = 1$.



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- 5) A rectangular prism has base dimensions $9 \text{ cm} \times 7 \text{ cm}$ and height 2 cm . A student forgets to include one of the two side faces with dimensions $9 \times 2 \text{ cm}$. If the correct surface area is SA_{correct} , what percentage of the correct surface area is their incorrect answer?

- ☐ A. 25% ☐ C. 75%
☐ B. 50% ☐ D. 91%



6)

The spinner above has 4 equal sections. If it is spun 80 times and the results are recorded, approximately how many times would you expect to see the blue section?

- ☐ A. 10 times ☐ C. 20 times
☐ B. 15 times ☐ D. 25 times

- 7) Solve and identify the key step: $-5x \geq 20$

Original: $-5x \geq 20$

Divide both sides by -5 .

FLIP the inequality: $\geq$ becomes $\leq$

Result: $x \leq -4$

- ☐ A. $x \leq -4$ ☐ C. $x < 4$
☐ B. $x \geq -4$ ☐ D. $x = -4$



- 1) A student observes that the points $(0, 0)$, $(1, 2)$, and $(2, 4)$ all lie on a straight line. What is the equation of this line?

☐ A. $y = x + 2$

☐ C. $y = x$

☐ B. $y = 2x + 1$

☐ D. $y = 2x$

- 2) Solve for x : $4(x + 5) = 44$

- 3) Solve: $-3x + 8 = 2$

$$-3x + 8 = 2$$



Subtract 8

$$-3x = -6$$



Divide by -3

$$x = 2$$

☐ A. $x = 1$

☐ C. $x = 3$

☐ B. $x = 2$

☐ D. $x = 4$

- 4) Solve: $5x - 2 \geq 18$

☐ A. $x \geq 4$

☐ C. $x \geq 20$

☐ B. $x \leq 4$

☐ D. $x > 4$



5) A rectangular parking lot measures 18 inches by 24 inches on a drawing at scale 1 in : 8 yd. What is the width of the actual parking lot?

☐ A. 18 yd

☐ C. 144 yd

☐ B. 24 yd

☐ D. 192 yd

6) An investment account offers two options: Option 1 earns 3% simple interest per year; Option 2 earns 5% simple interest per year. After 1 year with \$1,000 invested, how much more interest does Option 2 earn?

☐ A. \$10

☐ C. \$30

☐ B. \$50

☐ D. \$20

7) Evaluate: $-\frac{5}{6} - \frac{1}{3}$

☐ A. $\frac{7}{6}$
☐ C. $-\frac{5}{6}$
☐ B. $-\frac{1}{2}$
☐ D. $-1\frac{1}{6}$

8) Rewrite $x \div \frac{4}{7} = 10$ using multiplication (reciprocal form).

☐ A. $x \times \frac{4}{7} = 10$
☐ C. $x \times 10 = \frac{4}{7}$
☐ B. $x \times \frac{7}{4} = 10$
☐ D. $10 \div x = \frac{4}{7}$

9)

Fraction	Decimal
$\frac{1}{8}$	?

What is the decimal equivalent of $\frac{1}{8}$?

☐ A. 0.18

☐ C. 0.185

☐ B. 0.125

☐ D. 0.215


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Arizona AASA Grade 7 Practice Test Answer Keys**How to use this section with a Grade 7 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 Arizona AASA practice test.

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Practice Test Answers and Explanations

Practice Test 1 Answers and Explanations

- Choice C is correct. (7.RP.3) $600(1+r) = 684 \Rightarrow 1+r = 1.14 \Rightarrow r = 0.14 = 14\%$.
- Choice D is correct. (7.RP.3) STEP 1: Convert months to years: $t = 18 \div 12 = 1.5$ years. STEP 2: $I = 8500 \times 0.085 \times 1.5 = \1087.50 . STEP 3: $A = 8500 + 1087.50 = \$9587.50$.
- Choice A is correct. (7.NS.1b) Subtract the smaller absolute value from the larger: $|12| - |-5| = 12 - 5 = 7$. The larger absolute value is positive, so the answer is 7.
- Choice D is correct. (7.NS.1-7.NS.3) $-1 - (-5) = -1 + 5 = 4$. Move right 5 units from -1 on the number line.
- Choice C is correct. (7.SP.1-7.SP.4) 22% of 240 = $0.22 \times 240 = 52.8$ people.
- The correct answer is 0.75. (7.RP.1-7.RP.3) Revenue is price per cup times cups sold, so the constant is 0.75.
- Choice D is correct. (7.RP.3) Selling price = cost + markup = $25 + 5 = \$30$. (The markup represents $\$5/\$25 = 20\%$ of the cost.)
- Choice D is correct. (7.RP.1-7.RP.3) The unit rate is 0.9 (from the point $(1, 0.9)$). When $x = 5$, $y = 5 \times 0.9 = 4.5$.
- The correct answer is 80.64. (7.RP.1-7.RP.3) Actual dimensions: $3.2 \times 3 = 9.6$ feet and $2.8 \times 3 = 8.4$ feet. Area = $9.6 \times 8.4 = 80.64$ square feet.
- The correct answer is 15%. (7.RP.3) The discount amount is $60 - 51 = 9$ dollars. Percent discount: $\frac{9}{60} = 0.15 = 15\%$.
- Choice D is correct. (7.RP.3) Office workers: $\frac{12}{100} \times 250 = 30$. Remote workers: $250 - 30 = 220$.
- Choice D is correct. (7.EE.1-7.EE.2) Substitute: $4(3) - 5 + 2 = 12 - 5 + 2 = 9$.
- Choice D is correct. (7.RP.1-7.RP.3) Runner A: $\frac{1/3}{1/20} = \frac{1}{3} \times 20 = \frac{20}{3}$ mph. Runner B: $\frac{2/5}{1/12} = \frac{2}{5} \times 12 = \frac{24}{5} = 4.8$ mph. Runner A is faster.
- Choice D is correct. (7.RP.1-7.RP.3) Each ratio: $12/1 = 12$, $24/2 = 12$, $36/3 = 12$, $48/4 = 12$. Constant rate of \$12 per shirt.
- Choice C is correct. (7.RP.3) Rent = $50\% \times \$1,200 = 0.50 \times 1200 = \600 .
- The correct answer is 12%. (7.RP.3) Percent error = $\frac{|110-125|}{125} \times 100\% = \frac{15}{125} \times 100\% = 12\%$.
- Choice A is correct. (7.NS.1-7.NS.3) Common denominator 4: $-\frac{6}{4} - \frac{9}{4} + \frac{19}{4} = \frac{-6-9+19}{4} = \frac{4}{4} = 1$.
- Choice C is correct. (7.NS.1-7.NS.3) Negative divided by negative is positive: $-\frac{7}{8} \times (-\frac{4}{3}) = \frac{28}{24} = \frac{7}{6}$.
- Choice A is correct. (7.NS.2d) $0.125 = \frac{125}{1000}$. Find GCD(125, 1000) = 125. Divide both: $\frac{125 \div 125}{1000 \div 125} = \frac{1}{8}$. A is simplest form.
- Choice C is correct. (7.NS.1-7.NS.3) Weight loss: $\frac{1}{6} \times 180 = 30$ pounds.
- Choice A is correct. (7.NS.1-7.NS.3) Average = $\frac{450+520+485}{3} = \frac{1455}{3} = 485$ calories.
- The correct answer is A,C. (7.SP.1-7.SP.4) Sample 1: $\frac{36}{120} = 0.30$; Sample 2: $\frac{27}{90} = 0.30$. Both show 30%, so A is true. Equal proportions allow reliable population estimates (C is true). B and D is false (Sample 1 is larger at 120 vs 90).
- Choice B is correct. (7.NS.1-7.NS.3) $3.2 \times 10^4 = 3.2 \times 10,000 = 32,000$. Move the decimal 4 places right.
- Choice B is correct. (7.NS.1-7.NS.3) Perimeter = $4s = 32$, so $s = 8$ cm. Area = $s^2 = 8^2 = 64$ cm².
- Choice B is correct. (7.EE.1-7.EE.2) $30(1 - 0.1)$ clearly displays the factored structure: the scale factor $(1 - 0.1) = 0.9$ multiplied by the original price. This factored form emphasizes why a 10% discount leaves 90%.
- Choice C is correct. (7.SP.5-7.SP.8) Two favorable outcomes out of five equal sections: $P(2 \text{ or } 4) = \frac{2}{5} = 0.4$.
- Choice A is correct. (7.NS.2) $(-7) \times 5 = -35$, not 35. The student multiplied correctly but forgot that negative times positive is negative.
- Choice B is correct. (7.SP.3) Volatility is measured by range. Location 1: $\$2.90 - \$2.10 = \$0.80$. Location 2: $\$3.20 - \$2.00 = \$1.20$. Larger range indicates more volatility.
- Choice C is correct. (7.RP.3) Coordination fee = $0.12 \times 3000 = \$360$. Amount kept = $3000 - 360 = \$2,640$.
- Choice A is correct. (7.G.4-7.G.6) Rectangle: $10 \times 8 = 80$ m². Triangle removed: $\frac{1}{2} \times 10 \times 2 = 10$ m². Remaining: $80 - 10 = 70$ m².



Hi, Persistent Problem Solver!

◇ Some Grade 7 questions ask you to hold several ideas in your mind at once. That can feel hard, and that is exactly why practice matters. ◇

★ **Remember this:** You showed persistence by continuing through the set. That habit is powerful because difficult problems often open after one more good attempt. You practiced across 5 full Grade 7 practice tests, and that repeated effort matters. ★

Persistence Tools

- **Try a Smaller Case:** Use an easier number to see the pattern.
- **Draw It:** Make the situation visible.
- **Restate It:** Say the question in your own words.
- **Check One Step:** Fix the first unclear place.

Grade 7 test-day tip: When stuck, do not restart everything. Find the first step you trust, then rebuild from there.

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

Jay Daie

Your Persistence Coach

PRACTICE TODAY. SUCCEED TOMORROW!

This book includes **5** full-length Math practice tests and **2** online tests to help Grade 7 students build confidence, strengthen skills, and excel on standardized assessments.

Each practice test is carefully crafted to reflect the latest standards and includes a variety of question types, realistic test conditions, and detailed answer explanations.

Perfect for classroom use, homework, test preparation, and extra practice at home.



THIS BOOK INCLUDES:

5 Full-Length Printed Tests

2 Online Practice Tests

 Detailed Answers & Explanations



MORE PRACTICE. GREATER RESULTS.

Give your child the tools to build strong math skills, confidence, and a positive attitude toward learning.

WHAT YOU'LL GAIN



Build Confidence

Practice regularly to feel prepared and test-ready.



Strengthen Math Skills

Develop key math concepts and problem solving abilities.



Improve Understanding

Learn with clear explanations and step-by-step solutions.



Test Confidence

Familiarize with test formats and improve accuracy and speed.



Boost Performance

Apply your knowledge and achieve your best score!

TOPICS COVERED

- ✓ Ratios & Proportions
- ✓ The Number System
- ✓ Expressions & Equations
- ✓ Geometry
- ✓ Percents & Decimals
- ✓ Statistics & Probability
- ✓ Data Analysis
- ✓ Measurement & Conversions
- ✓ Algebraic Thinking
- ✓ And More!



2 ONLINE TESTS

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



2 EXTRA ONLINE TEST ACCESS CODE IS INSIDE THE BOOK!

Don't lose it—your extra practice and success start here!



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