

6

ARIZONA
AASA

GRADE

7

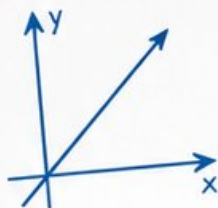
MATH

PRACTICE TESTS



Standards Aligned
Problem Solving For
Comprehensive
Assessment Programs

$$y = mx + b$$



$$2(x - 3) = 4x + 6$$

6 PRINTED
TESTS2 ONLINE
TESTS

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



Build
Confidence



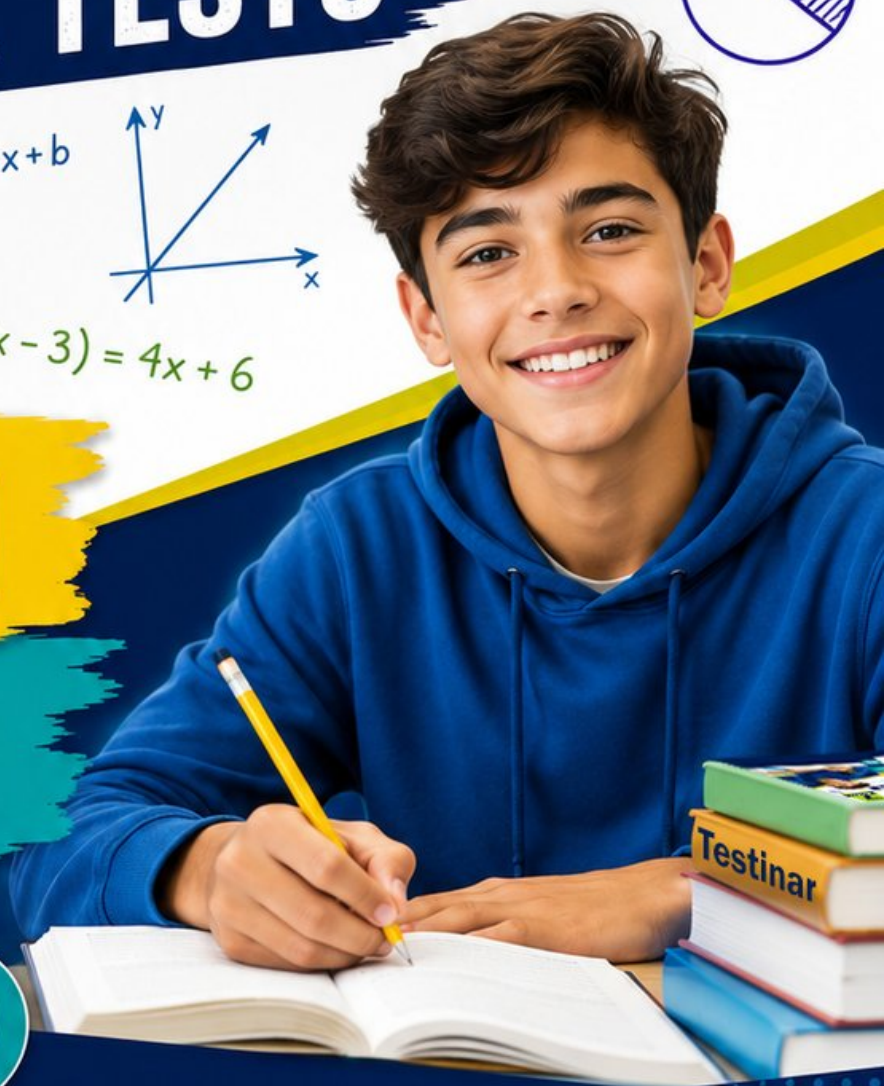
Strengthen
Math Skills



Detailed Answers
& Explanations



Improve Test
Performance



6 Arizona AASA Grade 7 Math Practice Tests

AASA-Aligned Practice with Keys and Focused Review



Six 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!

Six focused rounds for sharper AASA math thinking

This book gives you six 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 six-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?

Six AASA tests, 240 questions, and a complete review path

Part	What You Will Practice
Tests 1–3	Proportional relationships, unit rates, percents, rational-number operations, and careful reading.
Tests 4–6	Expressions, equations, inequalities, scale drawings, geometry, 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.

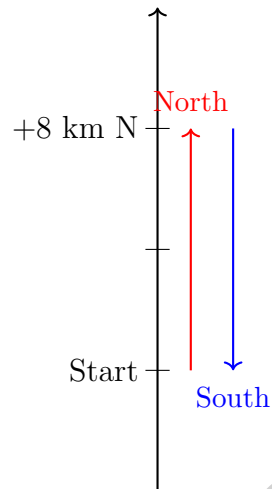


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& answers

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- 1) A scout hikes 8 kilometers north, then 8 kilometers south. Using a signed number model where north is positive, what is the total displacement?



- ☐ A. 16 km north
- ☐ B. 8 km north
- ☐ C. 0 km (back at start)
- ☐ D. 8 km south
- 2) A student reads $\frac{3}{5}$ page per minute. How many pages can they read in 15 minutes?
- ☐ A. $\frac{1}{5}$ pages
- ☐ B. $\frac{3}{5}$ pages
- ☐ C. 18 pages
- ☐ D. 9 pages
- 3) A point is translated from $(-2, 3)$ to $(4, -1)$. Write the translation vector (a, b) in the form (a, b) .



- 4) A party planner charges \$12 per person for p people. A \$25 setup fee applies to each group of people. If the total is \$97, which equation correctly shows this cost structure?
- ☐ A. $12(p + 25) = 97$ ☐ C. $12p + 25 = 97$
☐ B. $(12 + 25)p = 97$ ☐ D. $25(12 - p) = 97$
- 5) An equilateral triangle has all sides of length 7 cm. How many distinct triangles with these side lengths exist?
- ☐ A. 0 ☐ C. 2
☐ B. 1 ☐ D. Infinitely many
- 6) A museum posts a survey on its website for visitors to complete. What is the PRIMARY limitation of this method?
- ☐ A. The survey is too long ☐ C. It requires payment from visitors
☐ B. It excludes non-internet users and creates voluntary response bias ☐ D. It uses systematic random sampling
- 7) A dataset has a mean of 60 and a median of 65. Where are the outliers likely located?
- ☐ A. On the high end ☐ C. No outliers are present
☐ B. On the low end ☐ D. Evenly distributed
- 8) A stem-and-leaf plot shows test scores:
Stem 6: Leaves 5, 8
Stem 7: Leaves 2, 4, 7, 9
Stem 8: Leaves 1, 3, 5, 6
Stem 9: Leaves 0, 2
How many students scored in the 80s?
- ☐ A. 2 students ☐ C. 4 students
☐ B. 3 students ☐ D. 5 students



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- 9) A cylindrical can contains a volume of 376 cm^3 . The radius is 4 cm. What is the height of the can? Use $\pi \approx 3.14$.
- ☐ A. 3.75 cm ☐ C. 7.5 cm
☐ B. 5.625 cm ☐ D. 9.375 cm
- 10) A deck of cards has 52 cards. What is the probability of drawing a face card (Jack, Queen, or King) from a standard deck?
- ☐ A. $\frac{12}{52}$ ☐ C. $\frac{4}{13}$
☐ B. $\frac{2}{13}$ ☐ D. $\frac{1}{4}$
- 11) A menu offers 4 drinks, 6 main courses, and 3 desserts. How many complete meals can be ordered if you choose one of each?
- ☐ A. 13 ☐ C. 72
☐ B. 24 ☐ D. 84
- 12) A test for a new medicine was conducted on 1000 patients. 850 patients showed improvement. What is the experimental probability that a patient will show improvement?
- ☐ A. 0.15 ☐ C. 1.18
☐ B. 0.85 ☐ D. 1.76
- 13) A die is rolled and a spinner with 6 equal sections is spun. What is the probability of rolling a number greater than 2 AND spinning a number less than 4?
- ☐ A. $\frac{1}{3}$ ☐ C. $\frac{2}{3}$
☐ B. $\frac{8}{36}$ ☐ D. $\frac{4}{9}$



1) A beauty salon stylist earns \$100 in commission on \$250 in hair service sales. What is the commission rate?

☐ A. 25%

☐ C. 35%

☐ B. 30%

☐ D. 40%

2) An electronics store has a clearance sale offering 35% off all items. If a laptop is originally \$1 200, what is the sale price?

☐ A. \$420

☐ C. \$835

☐ B. \$1 035

☐ D. \$780

3) A simulation consists of rolling a die and flipping a coin, recording both results. This is the compound event. How many equally likely outcomes are in the sample space?

☐ A. 6

☐ C. 12

☐ B. 8

☐ D. 36

4) A dot plot displays the number of hours students exercise per week: 2, 2, 3, 3, 3, 4, 4, 4, 4, 5, 5, 6. What is the mode of the data?

5) A weather forecast predicts a 35% chance of snow. Write this probability as a decimal.



- 6) A spinner with 6 equal sections and a die are both used in an experiment. What is the total number of outcomes?
- ☐ A. 6 ☐ C. 18
☐ B. 12 ☐ D. 36
- 7) A card is drawn from a standard deck. What is the probability of drawing a king OR a queen?
- ☐ A. $\frac{4}{52}$ ☐ C. $\frac{2}{52}$
☐ B. $\frac{2}{13}$ ☐ D. $\frac{1}{26}$
- 8) A clock was estimated to cost \$18 but actually cost \$24. What is the percent error?
- ☐ A. 25% ☐ C. 75%
☐ B. 33.3% ☐ D. 6%
- 9) Expand and simplify: $5(x - 2) + 3(x + 4)$
- ☐ A. $8x + 22$ ☐ C. $5x + 7$
☐ B. $8x + 12$ ☐ D. $8x + 2$
- 10) A fair six-sided die is rolled 60 times. Based on the theoretical probability, how many times would you expect to roll a 5?



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1) Which of these fractions will produce a **terminating** decimal?

☐ A. $\frac{1}{7}$

☐ B. $\frac{3}{9}$

☐ C. $\frac{11}{100}$

☐ D. $\frac{4}{21}$

2) Simplify: $(y^2)^6$

☐ A. y^8

☐ B. y^{12}

☐ C. y^{36}

☐ D. $2y^6$

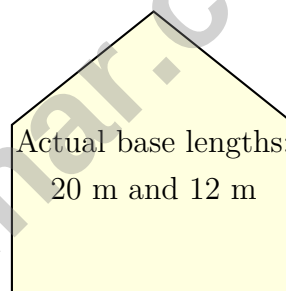
3) A savings account has a balance of $-\$15$ (overdraft). After depositing $\$50$, what is the new balance? Write and solve an equation.

☐ A. $\$25$

☐ B. $\$35$

☐ C. $\$50$

☐ D. $\$65$



4) Scale: 1 cm = 4 m

A scale drawing of a trapezoid uses a scale of 1 cm : 4 m. If the actual bases are 20 m and 12 m, what are the drawing's base lengths?

☐ A. 5 cm and 3 cm

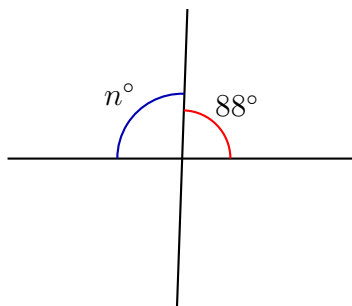
☐ B. 4 cm and 2.4 cm

☐ C. 8 cm and 4 cm

☐ D. 20 cm and 12 cm



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5)

Two lines intersect. One angle is 88° and an adjacent angle is n . Find n .

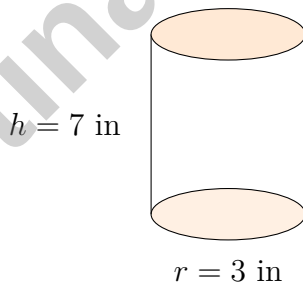
☐ A. 88°
☐ C. 92°
☐ B. 2°
☐ D. 268°

6) Two similar figures have a scale factor of $3 : 4$. If the smaller figure has a side length of 9 cm, what is the length of the corresponding side in the larger figure?

☐ A. 6.75 cm

☐ C. 13.5 cm

☐ B. 12 cm

☐ D. 27 cm


7)

Which formula gives the volume of the cylinder shown?

☐ A. $\pi \times 3 \times 7$
☐ C. $2\pi \times 3 \times 7$
☐ B. $\pi \times 3^2 \times 7$
☐ D. $2\pi \times 3^2 \times 7$


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

- 1) **Choice C is correct.** **(7.NS.1-7.NS.3)** $+8$ (north) and -8 (south) are opposites. Their sum is zero: $8 + (-8) = 0$. The scout returns to the starting point.
- 2) **Choice D is correct.** **(7.RP.1-7.RP.3)** $\frac{3}{5}$ pages/min $\times 15$ min $= \frac{3}{5} \times 15 = \frac{45}{5} = 9$ pages.
- 3) **The correct answer is (6, -4).** **(7.G.1-7.G.5)** The translation vector is found by subtracting the starting point from the ending point: $(4, -1) - (-2, 3) = (4 - (-2), -1 - 3) = (4 + 2, -4) = (6, -4)$.
- 4) **Choice C is correct.** **(7.EE.4a)** The setup fee (\$25) is a one-time charge, so it is not distributed. Cost is \$12 per p people plus \$25: $12p + 25 = 97$. Solving: $12p = 72$, so $p = 6$ people.
- 5) **Choice B is correct.** **(7.G.1-7.G.5)** All equilateral triangles with side 7 cm are congruent. Given three specific side lengths, exactly one shape is determined.
- 6) **Choice B is correct.** **(7.SP.1-7.SP.4)** Online surveys miss non-internet users and only attract interested respondents who choose to complete the survey, introducing coverage bias and voluntary response bias.
- 7) **Choice B is correct.** **(7.SP.1-7.SP.4)** When mean (60) < median (65), low outliers pull the mean down, indicating outliers are likely on the low end.
- 8) **Choice C is correct.** **(7.SP.1-7.SP.4)** Stem 8 has leaves 1, 3, 5, 6, representing scores 81, 83, 85, 86. That is 4 students in the 80s.
- 9) **Choice C is correct.** **(7.G.4-7.G.6)** $V = \pi r^2 h \Rightarrow 376 = 3.14 \times 16 \times h \Rightarrow h = \frac{376}{50.24} = 7.5$ cm.
- 10) **Choice A is correct.** **(7.SP.5-7.SP.8)** Face cards: 12 (4 suits $\times$ 3 types). $P(\text{face card}) = \frac{12}{52} = \frac{3}{13}$.
- 11) **Choice C is correct.** **(7.SP.5-7.SP.8)** By the counting principle: $4 \times 6 \times 3 = 72$ complete meal combinations.
- 12) **Choice B is correct.** **(7.SP.6)** Experimental probability $= \frac{850}{1000} = 0.85$.
- 13) **Choice A is correct.** **(7.SP.5-7.SP.8)** Greater than 2 on die: 3, 4, 5, 6 = 4 out of 6, so $P = \frac{2}{3}$. Less than 4 on spinner: 1, 2, 3 = 3 out of 6, so $P = \frac{1}{2}$. Product: $\frac{2}{3} \cdot \frac{1}{2} = \frac{1}{3}$ (or $\frac{12}{36}$).
- 14) **The correct answer is 1044.** **(7.G.1-7.G.5)** Actual length $= 12 \times 87 = 1044$ cm. This is approximately 10.44 meters.
- 15) **Choice A is correct.** **(7.SP.1-7.SP.4)** The largest stem is 7 with the largest leaf 6, giving 76.
- 16) **Choice D is correct.** **(7.SP.5-7.SP.8)** Probability must be between 0 and 1 (inclusive). $1.01 > 1$, so it is invalid.
- 17) **Choice C is correct.** **(7.RP.3)** Percent error $= \frac{|500 - 625|}{625} \times 100\% = \frac{125}{625} \times 100\% = 20\%$.
- 18) **Choice C is correct.** **(7.EE.1-7.EE.2)** Distribute 3 to both terms: $3(x) + 3(5) = 3x + 15$.
- 19) **Choice A is correct.** **(7.NS.1-7.NS.3)** Working left to right: $-15 - 6 = -21$, then $-21 + (-4) = -25$.
- 20) **Choice D is correct.** **(7.RP.1-7.RP.3)** The scale $\frac{1}{4}$ inch : 1 foot means 1 inch : 4 feet. So $1.5 \times 4 = 6$ feet.
- 21) **Choice D is correct.** **(7.RP.3)** 30% of 150 is $0.30 \times 150 = 45$.
- 22) **The correct answer is B,C.** **(7.G.1-7.G.5)** B and C are equivalent and correct: two angles are equal (50° each), so by the Isosceles Triangle Theorem, the sides opposite those angles must be equal. A is wrong (equilateral requires all angles 60°). D is wrong (two angles are the same).
- 23) **Choice D is correct.** **(7.RP.3)** The line is linear; from year 0 to year 1, balance goes from \$2000 to \$2500 (gain of \$500).
- 24) **Choice C is correct.** **(7.NS.1b)** Combine: $-3 + (-2) = -5$, then $-5 + 8 = 3$. The positive number outweighs the combined negatives.
- 25) **Choice A is correct.** **(7.EE.1)** c terms: $(9 - 1 - 4)c = 4c$. d terms: $(2 + 5)d = 7d$. Result: $4c + 7d$.
- 26) **Choice A is correct.** **(7.EE.1-7.EE.2)** GCF of 28 and 42 is 14. Both terms have x . GCF is $14x$.
- 27) **Choice B is correct.** **(7.SP.1-7.SP.4)** 12.5% of $360^\circ = 0.125 \times 360^\circ = 45^\circ$.
- 28) **The correct answer is 44.** **(7.G.4-7.G.6)** $C = 2\pi r = 2 \times \frac{22}{7} \times 7 = 2 \times 22 = 44$ cm.
- 29) **Choice D is correct.** **(7.RP.3)** Markup $= 0.60 \times 500 = \$300$. Selling price $= 500 + 300 = \$800$.
- 30) **Choice D is correct.** **(7.RP.1-7.RP.3)** Expected ratio: $3/1 = 3$. For sugar 4: flour should be $3 \times 4 = 12$, not 13.
- 31) **The correct answer is 10.** **(7.G.4-7.G.6)** From $A = \pi r^2$: $314 = 3.14 \times r^2 \Rightarrow r^2 = 100 \Rightarrow r = 10$ m.



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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 6 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

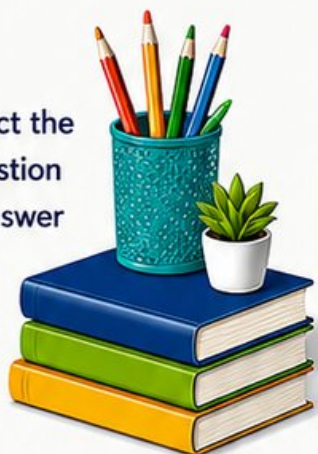
Your Persistence Coach

PRACTICE TODAY. SUCCEED TOMORROW!

This book includes **6** 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:

6 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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