

10 Arizona AASA

GRADE
7
MATH

PRACTICE TESTS

Standards Aligned Problem
Solving For Comprehensive
Assessment Programs



10 PRINTED TESTS

Realistic practice to build
confidence and mastery



2 ONLINE TESTS

Extra practice for
continued success



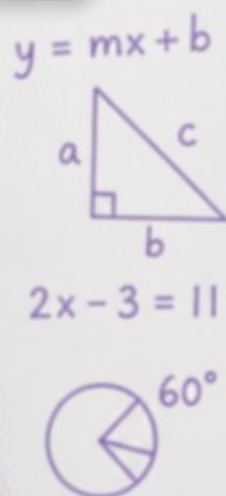
DETAILED ANSWER EXPLANATIONS

Learn with step-by-step
solutions



FOCUSED & EFFECTIVE

Target key math skills
with purposeful practice



10 PRINTED TESTS
+2 ONLINE TESTS

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

PRACTICE ★ REVIEW ★ SUCCEED

10 Arizona AASA Grade 7 Math Practice Tests

Arizona Grade 7 AASA Practice for desert-sharp reasoning with rates, proportional graphs, equations, geometry, statistics, and chance



Ten 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!

Ten focused rounds for sharper Arizona AASA math thinking

This book gives you ten 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 ten-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?

Ten Arizona AASA tests, 400 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.
Tests 7–9	Statistics, probability, mixed review, stamina, and choosing efficient strategies.
Test 10	A final Arizona round to show growth across the whole book.
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)

Outcome	T	U	V	W
Probability	$\frac{1}{6}$	$\frac{1}{3}$	$\frac{1}{4}$	?

Find the missing probability.

- ☐ A. $\frac{1}{12}$
☐ B. $\frac{5}{12}$

- ☐ C. $\frac{1}{4}$
☐ D. $\frac{7}{12}$

2) Solve: $2(x + 3) = 14$

- ☐ A. $x = 2$
☐ B. $x = 3$

- ☐ C. $x = 4$
☐ D. $x = 7$

3) If a square has a side length of 11 cm, what is its area?

- ☐ A. 110 cm^2
☐ B. 121 cm^2

- ☐ C. 132 cm^2
☐ D. 144 cm^2

4) Simplify: $-3(x + 2) - 2x$.

- ☐ A. $-3x - 6 - 2x = -5x - 6$
☐ B. $-5x - 2$

- ☐ C. $x - 6$
☐ D. $-5x + 6$

5) A student compared two datasets with the same mean of 50 and concluded, "Dataset A is better because it has a larger range." Is the student correct?

- ☐ A. Yes, larger range always means better data quality
☐ B. No, larger range indicates more variability, not quality
☐ C. The ranges must be equal if means are equal
☐ D. Cannot judge without sample sizes



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6) A school cafeteria offers lunch combinations with a choice of 2 sides (Salad or Veggies), 3 proteins (Chicken, Fish, Beef), and 2 breads (Roll or Cornbread). How many different lunches can be made?

☐ A. 7☐ C. 18☐ B. 12☐ D. 36

7) A spinner is divided into 5 equal sections labeled A, B, C, D, E . What is the probability of not landing on A ?

☐ A. $\frac{1}{5}$ ☐ C. $\frac{4}{5}$ ☐ B. $\frac{2}{5}$ ☐ D. $\frac{3}{5}$

8) A bag contains letters spelling PROBABILITY. If one letter is drawn at random, what is the probability of drawing a B OR a Y?

☐ A. $\frac{2}{11}$ ☐ C. $\frac{4}{11}$ ☐ B. $\frac{3}{11}$ ☐ D. $\frac{1}{11}$

9) A coin was flipped 80 times and came up heads 36 times. What is the experimental probability of getting heads?

☐ A. 0.36☐ C. 0.50☐ B. 0.45☐ D. 0.56

10) Which fraction is equivalent to a probability of 0.75?

☐ A. $\frac{1}{4}$ ☐ C. $\frac{1}{2}$ ☐ B. $\frac{3}{4}$ ☐ D. $\frac{4}{5}$ 

- 11) An accountant estimated revenues of \$250,000 but actual revenues were \$280,000. What is the percent error?

☐ A. 10.7% ☐ C. 30%
☐ B. 12% ☐ D. 89.3%

- 12) A merry-go-round has radius 5 meters. A child rides on it and goes around 4 complete times. How far does the child travel? Use $\pi \approx 3.14$. Round to the nearest tenth.

- 13) Expand: $-3(2a - 5)$

☐ A. $-6a - 15$ ☐ C. $6a - 15$
☐ B. $-6a + 15$ ☐ D. $-6a - 5$

- 14) What is $-8 - (-2)$?

☐ A. -10 (if you add both numbers without flipping the sign) ☐ C. -4 (if you forget to apply the rule)
☐ B. 6 (if you ignore the leading negative) ☐ D. -6 (correct: $-8 + 2$)

- 15) A rectangular prism has a volume of 480 m^3 and a base area of 60 m^2 . What is the height in meters?



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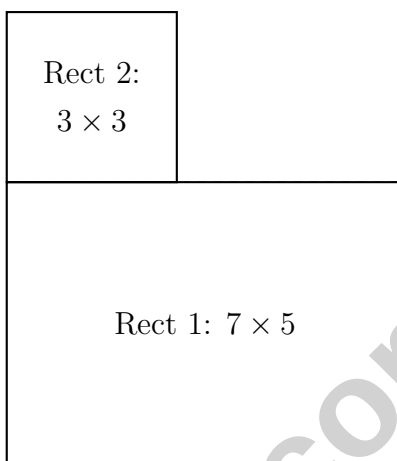
1) A phone case costs \$15 and is discounted by \$3. What is the percent discount?

☐ A. 10%

☐ C. 15%

☐ B. 25%

☐ D. 20%



2)

An L-shaped room consists of a large rectangle ($7 \text{ m} \times 5 \text{ m}$) and a small rectangle ($3 \text{ m} \times 3 \text{ m}$) attached at a corner. Which equation correctly finds the total area?

☐ A. $7 \times 5 \times 3 \times 3$

☐ C. $7 \times 5 + 3 \times 3$

☐ B. $(7 + 5) + (3 + 3)$

☐ D. $7 + 3 \times 5 + 3$

3) A prism has a base area of 72 ft^2 and a volume of 576 ft^3 . What is its height?

☐ A. 6 ft

☐ C. 12 ft

☐ B. 8 ft

☐ D. 504 ft

4) Expand: $-7(3n - 2)$

☐ A. $-21n - 14$

☐ C. $-21n + 14$

☐ B. $21n - 14$

☐ D. $-10n - 2$

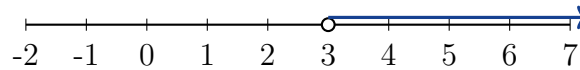


- 5) Are the expressions $12a - 5a + 3a$ and $10a$ equivalent?
- ☐ A. Yes, because $12 - 5 + 3 = 10$. ☐ C. Yes, both are equal to $10a$.
☐ B. No, because the coefficients are different. ☐ D. No, because $12a - 5a + 3a$ cannot be simplified.
- 6) Factor: $-5a - 20b$
- ☐ A. $-5(a + 4b)$ ☐ C. $-5(a - 4b)$
☐ B. $5(a + 4b)$ ☐ D. $5(-a - 4b)$
- 7) A cube has edge length 7 ft. What is the surface area?
- ☐ A. 49 ft^2 ☐ C. 196 ft^2
☐ B. 98 ft^2 ☐ D. 294 ft^2
- 8) A survey of 600 apartment residents shows that 14% own bicycles. How many residents own bicycles?
- ☐ A. 14 ☐ C. 140
☐ B. 84 ☐ D. 516
- 9) Solve: $\frac{x}{3} \geq 2$
- ☐ A. $x \geq \frac{2}{3}$ ☐ C. $x \geq 6$
☐ B. $x \leq 6$ ☐ D. $x \geq 2$
- 10) A survey asks: "How many hours did you study for math?" This is a:
- ☐ A. Biased question ☐ C. Leading question
☐ B. Neutral question ☐ D. Voluntary response question



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- 1) Choose the correct representation for $j > 3$.



- ☐ A. Closed circle at 3 pointing left ☐ C. Closed circle at 3 pointing right
☐ B. Open circle at 3 pointing right ☐ D. Open circle at 3 pointing left
- 2) A supermarket sold 1200 items during a sale. The circle graph shows 19% were on clearance. How many clearance items were sold?
- ☐ A. 19 ☐ C. 228
☐ B. 76 ☐ D. 972
- 3) Two consecutive perimeters of two squares are $(8x + 4)$ and $(6x + 2)$. What is the difference?
- ☐ A. $2x + 2$ ☐ C. $2x - 2$
☐ B. $14x + 6$ ☐ D. $-2x - 2$
- 4) Simplify $\frac{15m^8}{5m^3}$:
- ☐ A. $3m^5$ ☐ C. $10m^5$
☐ B. $3m^{11}$ ☐ D. $3m^8$
- 5) A baker measures flour in 1-cup scoops. She needs 3 times the number of scoops of flour for dough, plus 2 additional cups for dusting. If she uses 11 cups of flour total, how many scoops s did she use for dough?
- ☐ A. $3s + 2 = 11$ ☐ C. $2s + 3 = 11$
☐ B. $3s = 11$ ☐ D. $s + 3 + 2 = 11$



6) What is x if $3(x - 2) = 9$?

☐ A. $x = 2$

☐ C. $x = 5$

☐ B. $x = 3$

☐ D. $x = 6$

7) One number is 5 more than another. When the larger is doubled, the result is 40. Which equation represents this? (Let x = smaller number)

☐ A. $2(x + 5) = 40$

☐ C. $x + 2(5) = 40$

☐ B. $2x + 5 = 40$

☐ D. $2x = 40 + 5$

8) A person buys an item for \$45 and sells it for 20% more. What is the selling price?

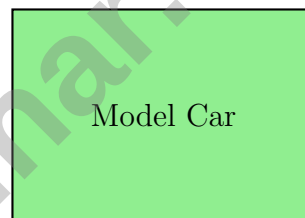
☐ A. \$36

☐ C. \$65

☐ B. \$54

☐ D. \$90

Scale 1 : 32



Length: 8 cm

9)

A scale model of a car is built at a scale of 1 : 32. If the model is 8 cm long, what is the actual length of the car in meters?

☐ A. 1.28 m

☐ C. 25.6 m

☐ B. 2.56 m

☐ D. 256 m



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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

- 1) **Choice C is correct.** (7.SP.5-7.SP.8) Sum of known probabilities: $\frac{1}{6} + \frac{1}{3} + \frac{1}{4} = \frac{2}{12} + \frac{4}{12} + \frac{3}{12} = \frac{9}{12} = \frac{3}{4}$. Then $P(W) = 1 - \frac{3}{4} = \frac{3}{12} = \frac{1}{4}$.
- 2) **Choice C is correct.** (7.EE.3-7.EE.4) Divide by 2: $x + 3 = 7$. Subtract 3: $x = 4$.
- 3) **Choice B is correct.** (7.NS.1-7.NS.3) Area of a square = $s^2 = 11^2 = 121 \text{ cm}^2$.
- 4) **Choice A is correct.** (7.EE.1-7.EE.2) Distribute -3 : $-3x - 6 - 2x$. Combine x terms: $-3x - 2x - 6 = -5x - 6$.
- 5) **Choice B is correct.** (7.SP.1-7.SP.4) The student confused range (a measure of spread) with quality. Larger range means data is more spread out, indicating greater variability. More variability does not equal better; it depends on context.
- 6) **Choice B is correct.** (7.SP.5-7.SP.8) By the counting principle: $2 \times 3 \times 2 = 12$ different lunch combinations.
- 7) **Choice C is correct.** (7.SP.5-7.SP.8) Not A: sections B, C, D, E (4 out of 5). $P(\text{not A}) = \frac{4}{5}$.
- 8) **Choice A is correct.** (7.SP.5-7.SP.8) PROBABILITY has 11 letters. B appears once and Y appears once. $P(B \text{ or } Y) = \frac{1}{11} + \frac{1}{11} = \frac{2}{11}$.
- 9) **Choice B is correct.** (7.SP.6) Experimental probability = $\frac{\text{observed outcomes}}{\text{total trials}} = \frac{36}{80} = 0.45$. This is close to the theoretical probability of 0.5, showing how observed results approximate expected outcomes.
- 10) **Choice B is correct.** (7.SP.5-7.SP.8) $\frac{3}{4} = 0.75$. Dividing $3 \div 4 = 0.75$.
- 11) **Choice A is correct.** (7.RP.3) Percent error = $\frac{|250000 - 280000|}{280000} \times 100\% = \frac{30000}{280000} \times 100\% \approx 10.7\%$.
- 12) **The correct answer is 125.6.** (7.G.4-7.G.6) Circumference = $2\pi r = 2 \times 3.14 \times 5 = 31.4 \text{ m}$. Distance = $4 \times 31.4 = 125.6 \text{ m}$.
- 13) **Choice B is correct.** (7.EE.1-7.EE.2) Distribute -3 to both terms: $-3(2a) = -6a$ and $-3(-5) = +15$ (negative times negative is positive). Result: $-6a + 15$.
- 14) **Choice D is correct.** (7.NS.1-7.NS.3) $-8 - (-2) = -8 + 2 = -6$. Subtracting the negative shifts right by 2 on the number line.
- 15) **The correct answer is 8.** (7.G.4-7.G.6) $h = \frac{V}{B} = \frac{480}{60} = 8 \text{ m}$.
- 16) **Choice D is correct.** (7.RP.1-7.RP.3) Scale is 2 : 5, so 1 : 2.5. Actual length: $10 \times 2.5 = 25$ feet.
- 17) **The correct answer is 9.** (7.G.4-7.G.6) $SA = 2\pi r^2 + 2\pi rh \Rightarrow 326.56 = 2(3.14)(16) + 2(3.14)(4)(h) \Rightarrow 326.56 = 100.48 + 25.12h \Rightarrow 226.08 = 25.12h \Rightarrow h = 9 \text{ cm}$.
- 18) **Choice D is correct.** (7.RP.3) The discount is 12% of \$85 = $0.12 \times 85 = 10.20$ dollars. Sale price: $85 - 10.20 = 74.80$ dollars.
- 19) **Choice D is correct.** (7.RP.3) $I = 1200 \times 0.03 \times 2 = \72 .
- 20) **The correct answer is A,B.** (7.G.4-7.G.6) Choice A: Diameter = $2r = 2 \times 6 = 12 \text{ m}$ is correct. Choice B: Area = $3.14 \times 6^2 = 113.04 \text{ m}^2$ is correct. C confuses circumference with area (37.68 m vs m^2). D fails because square area is 36 m^2 , much less than circle's 113.04 m^2 .
- 21) **Choice D is correct.** (7.NS.1b) -9 and 9 are opposites; they sum to zero. $-9 + 9 = 0$.
- 22) **Choice B is correct.** (7.EE.1) Simplify: $(9 - 4)x + 2y = 5x + 2y$. The coefficient of x is 5.
- 23) **Choice A is correct.** (7.EE.1-7.EE.2) The GCF of 5x and 25 is 5. Divide both terms by 5 to get $5(x + 5)$.
- 24) **Choice C is correct.** (7.SP.1-7.SP.4) 45% of 500 = $0.45 \times 500 = 225 \text{ kWh}$.
- 25) **Choice B is correct.** (7.EE.4b) Distance = speed $\times$ time. $s \times 2 \leq 15$, so $s \leq 7.5 \text{ mph}$.
- 26) **Choice D is correct.** (7.RP.1-7.RP.3) Unit rate = $\$160 \div 8 = \20 per meal.
- 27) **The correct answer is City M.** (7.SP.3) Range is a measure of spread. A smaller range indicates less variability and more predictable conditions, making planning easier. A larger range indicates high variability and unpredictability, even if the typical (median) temperature is the same.
- 28) **Choice D is correct.** (7.RP.3) Employee contribution = $6\% \times \$4,000 = \240 . Company match = $50\% \times \$240 = 0.50 \times 240 = \120 .
- 29) **Choice C is correct.** (7.NS.2d) Only C has a denominator factor other than 2 and 5: $30 = 2 \times 3 \times 5$ (contains 3). The others: $32 = 2^5$, $64 = 2^6$, $80 = 2^4 \times 5$ (only 2's and 5's).



Hi, Math Hero!

◇ This full-length book gave you ten complete Grade 7 practice tests, so you had repeated chances to build accuracy, pacing, and confidence. You showed up for Grade 7 practice again and again. That is what real growth looks like: steady effort, honest review, and a willingness to try. ◇

★ **Remember this:** A math hero is not someone who never misses a question. A math hero learns from the miss and comes back stronger. ★

Hero Habits

- **Courage:** You try problems that are not automatic.
- **Honesty:** You review what needs work.
- **Patience:** You let skills grow over time.
- **Pride:** You recognize the effort you gave.

Grade 7 test-day tip: Save one solved problem you are proud of. Looking back at progress helps motivation stay strong.

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

Jay Daie

Your Math Hero Guide

PRACTICE TODAY. SUCCEED TOMORROW!

This book includes 10 full-length Math practice tests and 2 extra 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:

10 Full-Length Printed Tests

2 Online Practice Tests

 Detailed Answer 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



Stronger Math Skills

Build a solid foundation through targeted practice and review.



Better Problem Solving

Develop logical thinking and effective solution strategies.



Deeper Understanding

Reinforce key concepts with clear explanations and meaningful practice.



Test Confidence

Familiarize with test formats and improve accuracy and speed.



Achieve Success

Build confidence and perform your best on test day.

TOPICS COVERED

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



2 EXTRA 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!

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STAY
FOCUSED



SOLVE
CONFIDENTLY



SUCCEED
BRIGHTLY

PRACTICE ★ REVIEW ★ SUCCEED