

3

Texas
STAAR

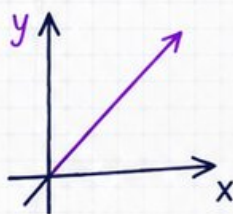
GRADE

7

MATH

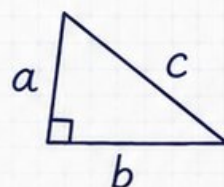
PRACTICE TESTS

- ✓ Standards Aligned
Problem Solving
For Comprehensive
Assessment Programs



$$y = mx + b$$

$$\frac{2}{3}x - \frac{4}{5} = \frac{1}{2}$$

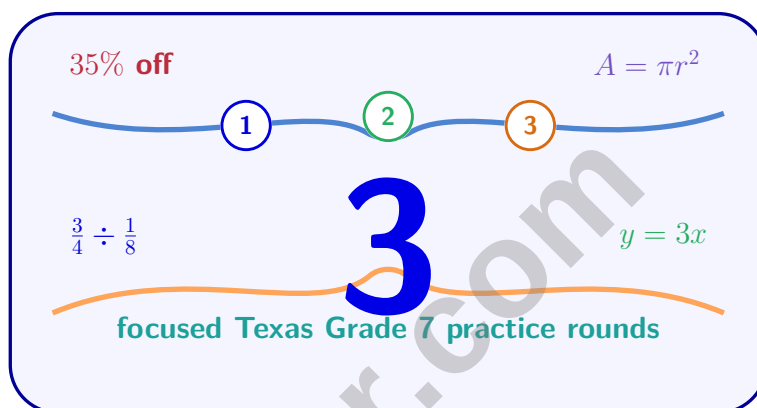


$$3(x - 2) = 2x + 5$$

3 PRINTED
TESTS2 ONLINE
TESTSUSE THESE TWO
ADDITIONAL ONLINE
PRACTICE TESTSFOR EXTRA REVIEW AFTER
THE PRINTED TESTS
IN THIS BOOK.Build
ConfidenceStrengthen
Math SkillsDetailed Answers
& ExplanationsImprove Test
Performance

3 Texas STAAR Grade 7 Math Practice Tests

Grade 7 Texas Math Review with Explanations Included



Three complete 40-question Grade 7 STAAR 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, Texas Grade 7 Problem Solver!

Three focused rounds for sharper STAAR math thinking

This book gives you three full Grade 7 STAAR 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 Texas 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 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.

Texas 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 STAAR tests, 120 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.
Test 3	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) 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. $2x = 40 + 5$

- 2) **Tree Height Measurements (Feet)**

Tree	Estimate	Actual
Oak	45	50

What is the percent error for the oak tree height?

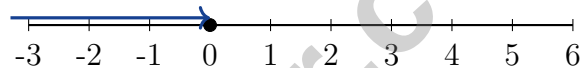
☐ A. 90%

☐ C. 11.1%

☐ B. 5%

☐ D. 10%

- 3) What inequality does this number line show?



☐ A. $x > 0$

☐ C. $x \geq 0$

☐ B. $x < 0$

☐ D. $x \leq 0$

- 4) Expand: $(3x + 2) \cdot 5$

☐ A. $3x + 10$

☐ C. $15x + 2$

☐ B. $15x + 10$

☐ D. $8x + 5$

- 5) 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

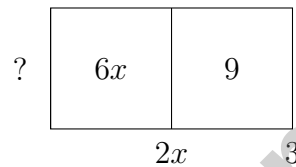
☐ B. \$9722.50

☐ D. \$9587.50



- 6) A diver begins at sea level (0 meters) and descends 25 meters. Then she ascends 8 meters. What is her final depth below sea level? Write your answer as an integer.

- 7) Which shows the correct area-model factorization for $6x + 9$?



- ☐ A. Height is 3; GCF is 3
- ☐ B. Height is 2; GCF is 2
- ☐ C. Height is 6; GCF is 6
- ☐ D. Height is 9; GCF is 9
- 8) A scale model of a bridge has a ratio of 1 : 500 (model to real). If the real bridge is 150 meters long, how long is the model in centimeters?
- ☐ A. 3 cm
- ☐ B. 3000 cm
- ☐ C. 300 cm
- ☐ D. 30 cm
- 9) A restaurant bill is \$50. If you tip 18%, what is the tip amount?
- ☐ A. \$5
- ☐ B. \$6
- ☐ C. \$9
- ☐ D. \$12



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10) A retailer paid \$45 for a pair of shorts. If she marks up the price by 80%, what is the retail price?

☐ A. \$65

☐ C. \$36

☐ B. \$225

☐ D. \$81

11) Using a chip model, if we have 5 positive chips and 3 negative chips, and they cancel as much as possible, how many chips remain and what sign?

☐ A. 2 positive chips

☐ C. 8 positive chips

☐ B. 2 negative chips

☐ D. 8 negative chips

12) Simplify: $3xy + 5xy - 2xy$

☐ A. $6xy$

☐ C. $8xy$

☐ B. $10xy$

☐ D. 0

13) A cube has edge length 5 mm. What is its surface area?

☐ A. 25 mm^2

☐ C. 125 mm^2

☐ B. 50 mm^2

☐ D. 150 mm^2

14) A recipe uses $\frac{3}{4}$ cup flour for $\frac{1}{2}$ dozen cookies. How much flour is needed for 3 dozen cookies?



1) Evaluate $\frac{2x-3}{5}$ when $x = 4$.

☐ A. $\frac{1}{5}$

☐ B. 2

☐ C. 1

☐ D. $\frac{11}{5}$

2) A rectangle on a map has length 7 cm and width 4 cm. The map scale is 1 cm : 2 km. When the map is enlarged so that the new scale becomes 1 cm : 1 km, what are the new dimensions?

☐ A. 7 cm by 4 cm

☐ B. 14 cm by 8 cm

☐ C. 3.5 cm by 2 cm

☐ D. 3 cm by 2 cm

3) A savings account has \$500. If the balance decreases by 12%, how much money is left in the account?



4) A rectangular prism has dimensions 4 cm $\times$ 6 cm $\times$ 8 cm. If a vertical plane cuts through it perpendicular to the base, which shape MUST appear in the cross-section?

☐ A. Square

☐ B. Rectangle

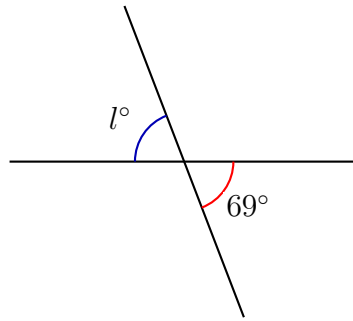
☐ C. Trapezoid

☐ D. Triangle



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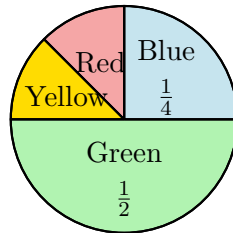
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5)

Two intersecting lines form angles. One angle is 69° . The vertically opposite angle is l . What is the measure of l ?

☐ A. 21° ☐ C. 111° ☐ B. 69° ☐ D. 159° 



1)

A spinner labeled with probability regions shows: $P(\text{blue}) = \frac{1}{4}$, $P(\text{green}) = \frac{1}{2}$. If red and yellow split the remaining space equally, what is $P(\text{red})$?

- ☐ A. $\frac{1}{8}$
☐ B. $\frac{1}{4}$

- ☐ C. $\frac{1}{2}$
☐ D. $\frac{3}{8}$

2)

Letter	A	B	C	D
Probability	$\frac{1}{2}$	$\frac{1}{4}$	$\frac{1}{8}$	$\frac{1}{8}$

Which outcome is most likely?

- ☐ A. A
☐ B. B

- ☐ C. C
☐ D. D

3) A bank charges a 3% fee on ATM withdrawals outside its network. If a customer withdraws \$300 from an out-of-network ATM, what is the ATM fee?

- ☐ A. \$6.00
☐ B. \$15.00

- ☐ C. \$12.00
☐ D. \$9.00



4) Which of the following best represents compound interest?

- ☐ A. Interest is paid only on the original principal.
- ☐ B. The balance decreases every year.
- ☐ C. Interest rates must be positive and never compound.
- ☐ D. Interest is earned on both principal and previously earned interest.

5)

Category	Budget Amount
Rent	\$1 500
Utilities	\$250
Groceries	\$400
Transportation	\$300
Savings	\$550
Total	\$3 000

What percent of the budget goes to savings?

- ☐ A. 15%
- ☐ B. 25%
- ☐ C. 20%
- ☐ D. 18%
- 6) A proportional relationship is shown by a line through the origin and (4, 6). What is the constant of proportionality?



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Texas STAAR 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 Texas STAAR practice test.



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Practice Test Answers and Explanations

Practice Test 1 Answers and Explanations

- 1) **Choice A is correct.** (7.EE.4a) The larger number is $x + 5$. Doubling it: $2(x + 5) = 40$. Distribute: $2x + 10 = 40 \Rightarrow 2x = 30 \Rightarrow x = 15$.
- 2) **Choice D is correct.** (7.RP.3) Percent error = $\frac{|45-50|}{50} \times 100\% = \frac{5}{50} \times 100\% = 10\%$.
- 3) **Choice D is correct.** (7.EE.4b) A closed circle at 0 with a left-pointing arrow indicates $x \leq 0$.
- 4) **Choice B is correct.** (7.EE.1-7.EE.2) Distribute 5 to both terms: $(3x) \cdot 5 + 2 \cdot 5 = 15x + 10$. The coefficient position on the right does not change the distributive property: $(b + c)a = ba + ca$.
- 5) **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: $A = 8500 + 1087.50 = \$9587.50$.
- 6) **The correct answer is -17.** (7.NS.1-7.NS.3) After descending: $0 - 25 = -25$. After ascending 8 meters: $-25 - (-8) = -25 + 8 = -17$. She is 17 meters below sea level.
- 7) **Choice A is correct.** (7.EE.1-7.EE.2) The rectangle has width $2x + 3$. For area $6x + 9$, height must be 3. This is the GCF.
- 8) **Choice D is correct.** (7.RP.1-7.RP.3) $150 \text{ m} = 15000 \text{ cm}$. Divide by scale: $15000 \div 500 = 30 \text{ cm}$.
- 9) **Choice C is correct.** (7.RP.3) The tip is 18% of \$50: $0.18 \times 50 = 9$ dollars.
- 10) **Choice D is correct.** (7.RP.3) Markup = $0.80 \times 45 = \$36$. Retail price = $45 + 36 = \$81$.
- 11) **Choice A is correct.** (7.NS.1b) Model: $5 + (-3)$. Three positive and three negative chips cancel, leaving 2 positive chips (representing +2).
- 12) **Choice A is correct.** (7.EE.1) All terms are like terms with variable xy . Combine: $(3 + 5 - 2)xy = 6xy$.
- 13) **Choice D is correct.** (7.G.4-7.G.6) $SA = 6s^2 = 6(5)^2 = 6(25) = 150 \text{ mm}^2$.
- 14) **The correct answer is $\frac{9}{2}$.** (7.RP.1-7.RP.3) 3 dozen is 6 times $\frac{1}{2}$ dozen, so flour is $\frac{3}{4} \times 6 = \frac{18}{4} = \frac{9}{2} = 4\frac{1}{2}$ cups.
- 15) **Choice B is correct.** (7.SP.5-7.SP.8) $\frac{2}{5}$ probability requires 2 favorable outcomes out of 5 equally likely ones. Option B directly represents this ratio.
- 16) **The correct answer is 40.** (7.RP.1-7.RP.3) Substitute: $y = 5(8) = 40$.
- 17) **Choice B is correct.** (7.NS.1-7.NS.3) In proper scientific notation, the coefficient must satisfy $1 \leq a < 10$. $0.0000625 = 6.25 \times 10^{-5}$.
- 18) **The correct answer is C,D.** (7.SP.1-7.SP.4) The total amounts are not given, so A and B cannot be determined from the percentages alone. Region Y has 50% indoor and 50% outdoor use, so C is correct. Region Y's outdoor percentage (50%) is higher than Region X's outdoor percentage (40%), so D is correct.
- 19) **Choice B is correct.** (7.EE.1-7.EE.2) Substitute: $2(5) + 3(1) - 2 = 10 + 3 - 2 = 11$.
- 20) **Choice A is correct.** (7.EE.1-7.EE.2) Distribute the negative: $16d - 9 - 7d + 4 = (16d - 7d) + (-9 + 4) = 9d - 5$.
- 21) **Choice C is correct.** (7.EE.3-7.EE.4) If $4x + 8 = 28$, subtracting 8 gives $4x = 20$, then dividing by 4 gives $x = 5$.
- 22) **Choice A is correct.** (7.EE.4b) Subtract 3: $-2x < 6$. Divide by -2 and flip the sign: $x > -3$.
- 23) **Choice C is correct.** (7.G.4-7.G.6) $V = \pi r^2 h \approx 3.14 \times 2^2 \times 6 = 3.14 \times 4 \times 6 = 75.36 \text{ cm}^3$.
- 24) **Choice A is correct.** (7.SP.1-7.SP.4) Evening hours systematically exclude people who work evening shifts or are otherwise unavailable at that time, creating a biased sample that overrepresents people available in the evening.
- 25) **Choice A is correct.** (7.SP.1-7.SP.4) Week 1: \$450–465 (range = 15, mean = 456, tight cluster). Week 2: \$300–550 (range = 250, mean = 440, highly variable). Week 1 is much more predictable for planning.
- 26) **Choice C is correct.** (7.SP.1-7.SP.4) Comparing month-to-month increases: Feb (+5), Mar (+5), Apr (-2), May (+7), Jun (+5). May's increase from April (18) to May (25) is 7, which is the largest.
- 27) **Choice D is correct.** (7.RP.1-7.RP.3) For $C = 3b$, the line must pass through the origin. Graph A passes through (0, 0), (1, 3), and (2, 6). Graph B does not pass through the origin.
- 28) **Choice D is correct.** (7.RP.1-7.RP.3) The unit rate is 0.9 (from the point (1, 0.9)). When $x = 5$, $y = 5 \times 0.9 = 4.5$.
- 29) **Choice D is correct.** (7.RP.3) Using the proportion $\frac{40}{100} = \frac{d}{1}$ where d is the decimal, divide: $\frac{40}{100} = 0.4$.
- 30) **Choice D is correct.** (7.RP.3) Investments = 20% of \$2,500 = $0.20 \times 2500 = \$500$.



Hi, Math Communicator!

◇ Grade 7 math is not only about getting a number. It is about explaining relationships and making your reasoning visible. ◇

★ **Remember this:** When you show steps, label diagrams, and write clear answers, you are joining the conversation that math is trying to have. You practiced across 3 full Grade 7 practice tests, and that repeated effort matters. ★

Communication Skills

- **Use Words:** Explain what the answer means.
- **Use Symbols:** Keep equations accurate.
- **Use Diagrams:** Show relationships visually.
- **Use Units:** Connect math to context.

Grade 7 test-day tip: For open-ended questions, answer in a complete thought: value, unit, and reason.

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

Jay Daie

Your Math Communication Coach

PRACTICE TODAY. SUCCEED TOMORROW!

This book includes **3** 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:

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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.



Detailed Answers & Explanations

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



Improve Test 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!



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