

10 Texas STAAR

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



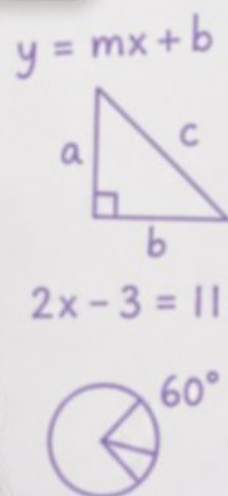
DETAILED ANSWER EXPLANATIONS

Learn with step-by-step solutions



FOCUSED & EFFECTIVE

Target key math skills with purposeful practice



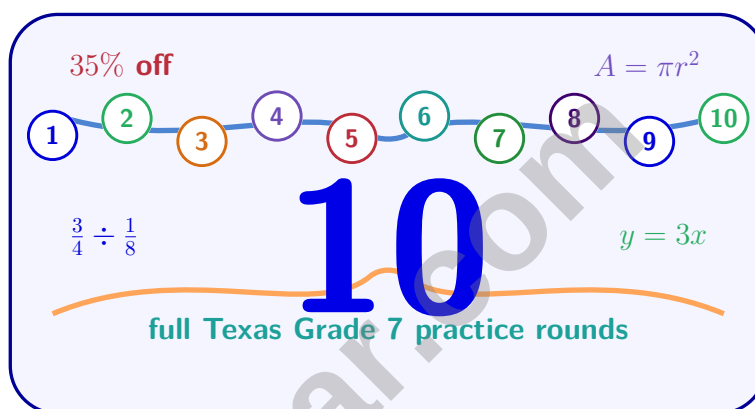
10 PRINTED TESTS
+2 ONLINE TESTS

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

PRACTICE ★ REVIEW ★ SUCCEED

10 Texas STAAR Grade 7 Math Practice Tests

Texas Grade 7 STAAR Practice for wide-ranging practice in rates, percents, rational operations, algebra, geometry, and probability



Ten 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!

Ten focused rounds for sharper Texas STAAR math thinking

This book gives you ten 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 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.

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?

Ten Texas STAAR 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 Texas 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.



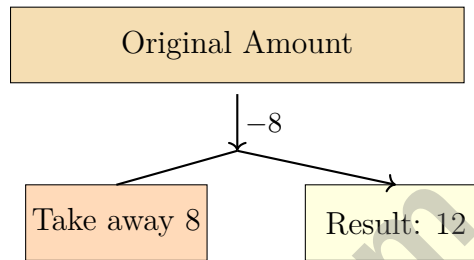
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1) Which statement about investment returns is true?

- ☐ A. Simple interest always beats compound interest
- ☐ B. Higher interest rates always mean less risk
- ☐ C. Investing early allows more time for growth
- ☐ D. Investment accounts never experience losses



2)

Using the model, what is the original amount?

- ☐ A. 4
- ☐ B. 12
- ☐ C. 20
- ☐ D. 24

3) Which value makes $2(x + 5) = 18$ true?

- ☐ A. $x = 2$
- ☐ B. $x = 4$
- ☐ C. $x = 5$
- ☐ D. $x = 9$

4) A phone plan costs \$50 per month. With a promotional 5% reduction, the cost becomes $50 - 0.05(50)$. Rewrite this in the form $50(?)$.

- ☐ A. $50(0.95)$
- ☐ B. $50(0.05)$
- ☐ C. $50(1.05)$
- ☐ D. $50(1 - 0.05)$



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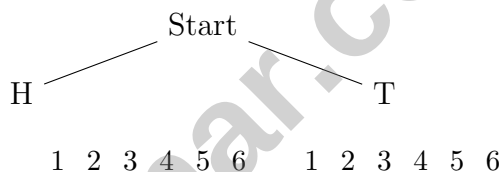
- 5) A rectangular prism has a volume of 480 m^3 and a base area of 60 m^2 . What is the height in meters?

- 6) A fair coin is flipped. What is the theoretical probability of getting heads?

☐ A. $\frac{1}{4}$
☐ B. $\frac{1}{3}$

☐ C. $\frac{1}{2}$
☐ D. 1

- 7) A fair six-sided die is rolled and a coin is flipped. Which of the following is the correct way to count the sample space?



☐ A. $6 + 2 = 8$ outcomes
☐ B. $6 \times 2 = 12$ outcomes

☐ C. $6 - 2 = 4$ outcomes
☐ D. $\frac{6}{2} = 3$ outcomes

- 8) A student rolls a die twice. The first roll is a 2. What is the probability that the second roll is even?

☐ A. $\frac{1}{6}$
☐ B. $\frac{1}{3}$

☐ C. $\frac{1}{2}$
☐ D. $\frac{2}{3}$



- 9) A spinner was designed with sections of different sizes. After 400 spins, the yellow section appeared 120 times. If the spinner is spun 2000 times, about how many times would yellow be expected to appear?

☐ A. 120 ☐ C. 600
☐ B. 400 ☐ D. 800

- 10) The stem-and-leaf plot shows:

Stem	Leaves
10	1, 5, 7
11	2, 3, 8, 9
12	0, 4, 6

What is the mode?

☐ A. 112 ☐ C. 119
☐ B. 118 ☐ D. No mode

- 11) Jonah estimated the length of a pencil to be 7 inches, but the actual length is 8 inches. What is the percent error?

☐ A. 10.0% ☐ C. 14.3%
☐ B. 87.5% ☐ D. 12.5%

- 12) Expand and simplify: $4(x + 3) - 2(x - 5)$

☐ A. $2x + 22$ ☐ C. $2x + 2$
☐ B. $6x + 2$ ☐ D. $6x + 22$



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- 1) A model train layout is created at scale 1 cm : 0.25 m. A rectangular section of track measures 12 cm $\times$ 20 cm in the model. If the scale is changed to 1 cm : 0.5 m and the model is redrawn, what will be the area of the new model section in square centimeters?

☐ A. 60 cm² ☐ C. 240 cm²
☐ B. 120 cm² ☐ D. 480 cm²

- 2) A stem-and-leaf plot is created from test scores. Stem 8 has leaves 1, 2, 4, 5, 6, 7, 9. Stem 9 has leaves 0, 1, 3. Which score appears most frequently in the dataset?

☐ A. 81 ☐ C. 90
☐ B. 89 ☐ D. No mode (each score appears once)

- 3) A rectangular prism has a square base with side length 7 cm and a height of 11 cm. What is the volume?

☐ A. 49 cm³ ☐ C. 539 cm³
☐ B. 77 cm³ ☐ D. 1,078 cm³

- 4) A spinner has 8 equal sections: 3 red, 2 blue, and 3 green. What is the probability of spinning a blue section?

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

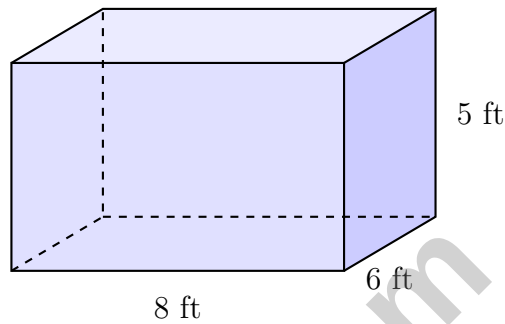
- 5) Which terms are like terms?

☐ A. $4x$ and $4y$ ☐ C. $7m$ and $2m$
☐ B. $3x^2$ and $3x$ ☐ D. $5xy$ and $5x$



- 6) If the area of a rectangle is $18x + 27$ square units and the width is 9 units, what is the length?

- ☐ A. $2x + 3$ ☐ C. $18x$
☐ B. $2x + 27$ ☐ D. $18x + 27$



7)

A rectangular prism has dimensions $8 \text{ ft} \times 5 \text{ ft} \times 6 \text{ ft}$. Find the total surface area.

- ☐ A. 120 ft^2 ☐ C. 240 ft^2
☐ B. 236 ft^2 ☐ D. 480 ft^2

- 8) An item is on sale for \$48 after a 20% discount. What was the original price?

- 9) A sector in a circle graph has a central angle of 54° . What percent does it represent?

- ☐ A. 12% ☐ C. 18%
☐ B. 15% ☐ D. 20%



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1) Solve: $x + 7 < 12$

☐ A. $x < 5$

☐ B. $x > 5$

☐ C. $x \leq 5$

☐ D. $x < 19$

2) A circle graph shows the distribution of pets owned by households in a neighborhood. Dogs account for 40% of the 80 households surveyed. How many households own dogs?

☐ A. 20

☐ B. 32

☐ C. 48

☐ D. 64

3) Simplify: $(-3q - 7) + (8q + 2)$

☐ A. $5q - 5$

☐ B. $5q + 5$

☐ C. $11q - 5$

☐ D. $-5q - 5$

4) Which expression is NOT equal to y^6 ?

☐ A. $y^3 \cdot y^3$

☐ B. $(y^2)^3$

☐ C. $\frac{y^{10}}{y^4}$

☐ D. $y^2 \cdot y^3$

5) Naomi buys 3 books at \$8 each and a \$5 bookmark. Let t be her total cost. Which equation models this situation?

☐ A. $t = 3 + 8 + 5$

☐ B. $t = 3(8 + 5)$

☐ C. $t = 3(8) + 5$

☐ D. $t = 3 + 8 \times 5$

6) Solve for x : $5(x + 3) = 2x + 36$

☐ A. $x = 3$

☐ B. $x = 5$

☐ C. $x = 7$

☐ D. $x = 9$



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7) A recipe uses $\frac{2}{3}$ cup of flour. If you triple the recipe, how much flour is needed? Estimate to check.

☐ A. $\frac{2}{9}$ cup

☐ C. 2 cups

☐ B. $\frac{2}{3}$ cup

☐ D. 3 cups

8) If a scale drawing has a scale of 2 : 5, which of the following is true?

☐ A. The drawing is smaller than the actual object.

☐ C. The drawing and the object are the same size.

☐ B. The drawing is larger than the actual object.

☐ D. Cannot be determined without more information.

9) A scale drawing shows a rectangular plot 4 in by 7 in with scale 1 in : 15 ft. A new drawing uses scale 1 in : 30 ft. Which are the new dimensions?

☐ A. 2 in by 3.5 in

☐ C. 8 in by 14 in

☐ B. 4 in by 7 in

☐ D. 60 in by 105 in

10) If a hexagonal prism is cut by a plane perpendicular to its hexagonal bases, what shapes are possible for the cross-section?

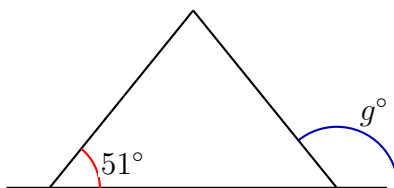
☐ A. Only rectangles

☐ C. Rectangles and parallelograms

☐ B. Only parallelograms

☐ D. Triangles and quadrilaterals only

11)



Two rays extend upward from a horizontal line, forming angles of 51° and g° . These angles are supplementary. What is the measure of angle g ?

☐ A. 39°

☐ C. 129°

☐ B. 51°

☐ D. 139°



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 C is correct.** (7.RP.3) Time in the market is a key factor in investment returns. Starting early maximizes compound growth. Options A, B, and D are false or misleading.
- 2) **Choice C is correct.** (7.EE.3-7.EE.4) Original amount = $12 + 8 = 20$.
- 3) **Choice B is correct.** (7.EE.3-7.EE.4) Divide by 2: $x + 5 = 9$. Subtract 5: $x = 4$.
- 4) **Choice A is correct.** (7.EE.1-7.EE.2) $50 - 0.05(50) = 50(1 - 0.05) = 50(0.95)$. The factor 0.95 captures the scale: keeping 95% of the original.
- 5) **The correct answer is 8.** (7.G.4-7.G.6) $h = \frac{V}{B} = \frac{480}{60} = 8$ m.
- 6) **Choice C is correct.** (7.SP.5-7.SP.8) A fair coin has two equally likely outcomes: heads and tails. $P(\text{heads}) = \frac{1}{2}$.
- 7) **Choice B is correct.** (7.SP.5-7.SP.8) The counting principle for independent events uses multiplication: die outcomes (6) times coin outcomes (2) equals 12 total outcomes.
- 8) **Choice C is correct.** (7.SP.5-7.SP.8) Rolling the die again is independent of the first roll. Even numbers on a die: 2, 4, 6, so $P(\text{even}) = \frac{3}{6} = \frac{1}{2}$.
- 9) **Choice C is correct.** (7.SP.6) Relative frequency from observed data: $\frac{120}{400} = 0.30$. Use this to predict outcomes in a larger sample: $0.30 \times 2000 = 600$ spins yield yellow.
- 10) **Choice D is correct.** (7.SP.1-7.SP.4) Each value appears exactly once, so there is no repeating value. There is no mode.
- 11) **Choice D is correct.** (7.RP.3) Percent error = $\frac{|\text{estimate} - \text{actual}|}{|\text{actual}|} \times 100\% = \frac{|7 - 8|}{8} \times 100\% = 12.5\%$.
- 12) **Choice A is correct.** (7.EE.1-7.EE.2) Expand: $4x + 12 - 2x + 10 = 2x + 22$. Combine like terms.
- 13) **Choice D is correct.** (7.RP.3) The formula $I = Prt$ gives interest only. The total amount equals principal plus interest: $A = P + I = P + Prt = P(1 + rt)$.
- 14) **Choice D is correct.** (7.RP.1-7.RP.3) If the toy is $\frac{1}{10}$ the size, the real car is 10 times larger: $8 \times 10 = 80$ inches.
- 15) **Choice D is correct.** (7.RP.3) 50% of 180 is $0.50 \times 180 = 90$.
- 16) **Choice D is correct.** (7.RP.3) Sale price = original $\times 0.80$. So $72 = \text{original} \times 0.80$, giving original = $72 \div 0.80 = \$90$.
- 17) **Choice A is correct.** (7.NS.1b) Both numbers are negative; add absolute values: $|-28| + |-15| = 28 + 15 = 43$, and keep the negative sign: -43 .
- 18) **Choice A is correct.** (7.NS.1-7.NS.3) Distance is found using absolute value: $|-12 - 3| = |-15| = 15$ or equivalently $|3 - (-12)| = 15$. Only choice A gives the correct distance.
- 19) **The correct answer is A,B.** (7.G.4-7.G.6) Choice A: Diameter = $2r = 2 \times 6 = 12$ 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 .
- 20) **Choice A is correct.** (7.EE.1) Combine: $(-2 - 3 + 1)n = -4n$.
- 21) **Choice B is correct.** (7.EE.1-7.EE.2) Check: $3(2y - 4) = 6y - 12$. This is the only pair that are equivalent.
- 22) **Choice C is correct.** (7.SP.1-7.SP.4) 36% of 2500 = $0.36 \times 2500 = 900$ customers.
- 23) **Choice D is correct.** (7.EE.1-7.EE.2) Substitute: $\frac{6+10}{2} = \frac{16}{2} = 8$.
- 24) **Choice D is correct.** (7.RP.1-7.RP.3) The unit rate is $6 \div 4 = 1.5$. So $y = 1.5x$. At $x = 8$, $y = 1.5 \times 8 = 12$ cups.
- 25) **Choice A is correct.** (7.NS.1-7.NS.3) Since $5.2 < 7.1$, the difference is negative: $5.2 - 7.1 = -1.9$.
- 26) **Choice B is correct.** (7.NS.1-7.NS.3) $\frac{5}{6} \div \frac{5}{9} = \frac{5}{6} \times \frac{9}{5} = \frac{45}{30} = \frac{3}{2}$.
- 27) **The correct answer is 20.** (7.G.4-7.G.6) $V = \pi r^2 h \Rightarrow 565.2 = 3.14 \times 9 \times h \Rightarrow 565.2 = 28.26h \Rightarrow h = 20$ feet.
- 28) **Choice C is correct.** (7.NS.1-7.NS.3) Total cost: $12.50 \times 7.5 = 93.75$ dollars.
- 29) **Choice A is correct.** (7.NS.1-7.NS.3) Total change = $\$125 - \$75 + \$200 = \250 .
- 30) **Choice A is correct.** (7.NS.1-7.NS.3) $12 \times 10^{-6} = 1.2 \times 10^{-5} = 0.000012$. Adjusting the coefficient and exponent by one power of 10 yields the equivalent form.



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

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FOCUSED



SOLVE
CONFIDENTLY



SUCCEED
BRIGHTLY

PRACTICE ★ REVIEW ★ SUCCEED