

5

Texas STAAR

GRADE 6 MATH PRACTICE TESTS

Standards Aligned Problem Solving
For Comprehensive Assessment Programs



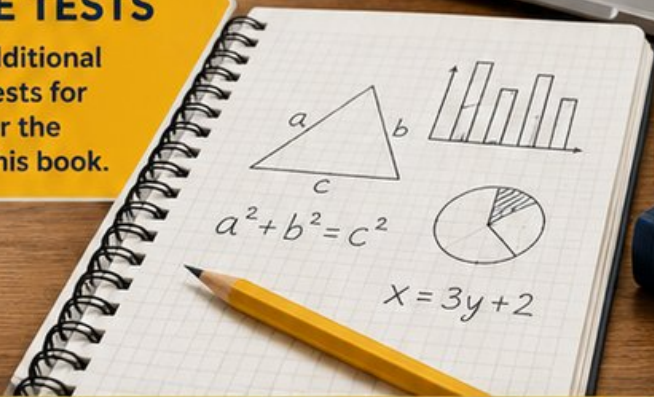
5 PRINTED TESTS

- ✓ Full-Length Practice Tests
- ✓ Realistic Questions
- ✓ Answer Key & Explanations



+ 2 ONLINE TESTS

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

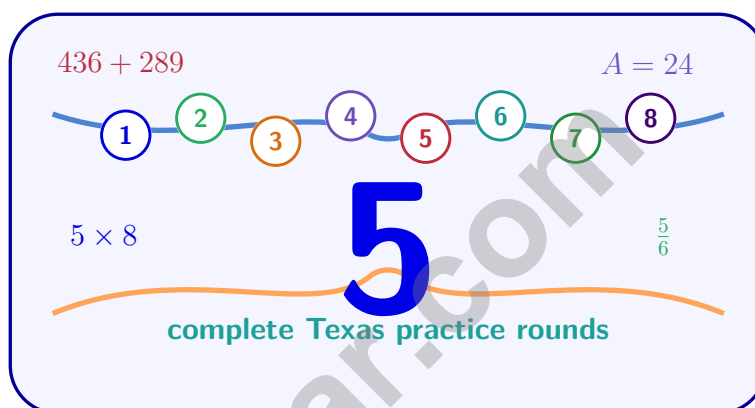


PREPARE • PRACTICE • SUCCEED



5 Texas STAAR Grade 6 Math Practice Tests

Standards-Aligned Bold But Careful Reasoning for State of Texas Assessments of Academic Readiness



Five complete 40-question Grade 6 practice rounds for STAAR, built for bold but careful reasoning with ratios, rational numbers, expressions, equations, geometry, statistics, answer keys, and clear explanations for every item.

Jay Daie and Reza Nazari



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Welcome, Texas Math Explorer!

Eight focused rounds using bold but careful reasoning

This book gives you five full Grade 6 practice tests for STAAR. Each round uses big skies, city grids, and confident problem-solving routes as a fresh mental backdrop while you read closely, choose a smart strategy, show your work, and check whether your answer makes sense.

Your Texas Practice Promise

Make the setup big and clear before doing the math: mark clues, solve, and verify.

Read

Plan

Check

How to Use This Book

A five-session routine for bold but careful reasoning

1. **Preview the skills.** Scan the quick review pages before beginning the first round.
2. **Work in order.** Take one 40-question test at a time in a quiet place.
3. **Mark confidence.** Put a small star beside problems where your plan felt strong.
4. **Correct actively.** Retry missed items before reading the full explanation.
5. **Plan the next round.** Use the growth log to choose one habit and one skill to practice.

Texas review rhythm: Work one round, study the hard spots, and return with a stronger plan for the next STAAR-style set.



What Is Inside?

Eight STAAR tests, 320 questions, and a full review path

Part	What You Will Practice
Tests 1–2	Foundation rounds for ratios, rational numbers, operations, and careful reading.
Tests 3–4	Skill-building rounds with expressions, equations, geometry, data, and problem models.
Test 5	Final stamina round for mixed review, neat work, and flexible strategy choices.
Answer Pages	Compact keys and explanations that show why each answer works.

The tests are mixed on purpose. Bold but careful reasoning means recognizing the skill even when the next question changes topic, changes format, or asks for an explanation.

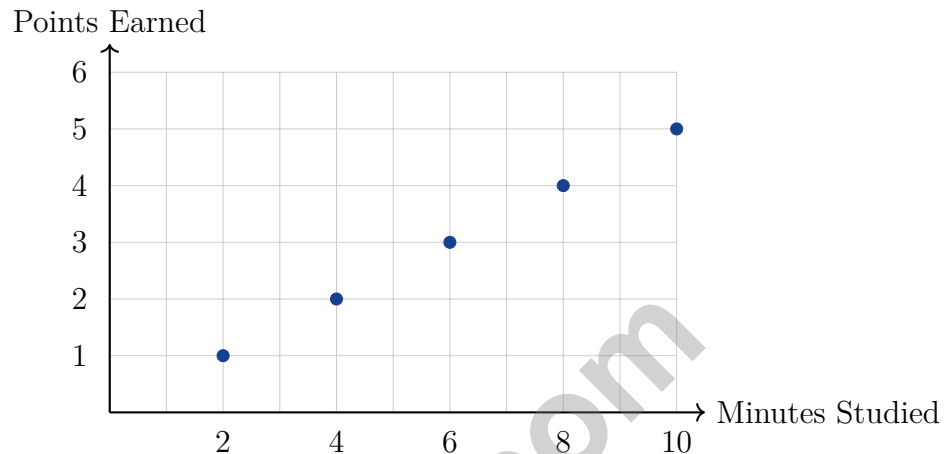


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& answers

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- 1) The graph shows the relationship between minutes studied and test score points earned.



What is the unit rate (points per minute)?

- A. 0.25 points per minute C. 1 point per minute
 B. 0.5 points per minute D. 2 points per minute
- 2) A rectangular garden is drawn with a scale of 1 cm = 2 m. The drawing shows the garden as 5 cm long and 3 cm wide. What is the perimeter of the actual garden?
- A. 8 m C. 32 m
 B. 16 m D. 64 m
- 3) A streaming service costs \$120 for 12 months. What is the monthly cost?
- A. \$8 per month C. \$12 per month
 B. \$10 per month D. \$15 per month



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4) A bakery uses 15 kilograms of flour. Of this, 60% is used for bread. How many kilograms are used for bread?

A. 6 kg

C. 12 kg

B. 15 kg

D. 9 kg

5) A bag contains 9 marbles. If the probability of drawing a green marble is $\frac{1}{3}$, how many green marbles are in the bag?

6) A car travels at a rate of 60 miles per hour. If we express the distance-to-time ratio as 60 : 1, how many miles does the car travel in 5 hours?

A. 55 miles

C. 300 miles

B. 65 miles

D. 12 miles

7) A smoothie contains blueberries and strawberries in the ratio 3 : 4. Which pair could NOT describe this smoothie?

A. 6 blueberries and 8 strawberries

C. 12 blueberries and 15 strawberries

B. 9 blueberries and 12 strawberries

D. 15 blueberries and 20 strawberries

8) A painter paints 48 square feet in 2 hours. What is the rate in square feet per hour?

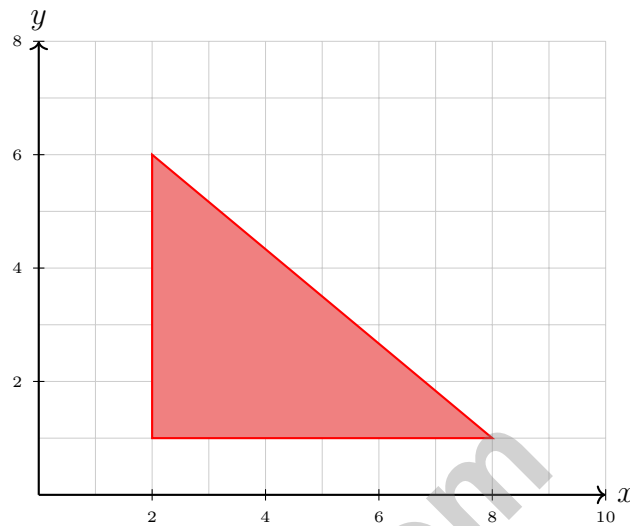
A. 20 square feet per hour

C. 50 square feet per hour

B. 96 square feet per hour

D. 24 square feet per hour





1)

A right triangle has vertices at $(2, 1)$, $(8, 1)$, and $(2, 6)$. What is its area?

- A. 12 square units C. 18 square units
 B. 15 square units D. 20 square units

2) A sports analyst compares two athletes' scoring consistency. Athlete A: 10 games with mean = 18 points, IQR = 4. Athlete B: 10 games with mean = 18 points, IQR = 8. If a coach needs a reliable scorer for an important game, whom should she choose?

- A. Athlete A, due to smaller IQR D. Cannot decide without knowing all scores
 B. Athlete B, due to higher variability
 C. Both equally reliable



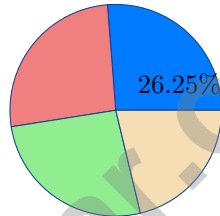
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3) Which event is **certain** to happen?

- A. Rolling a number greater than 6 on a standard die.
- B. Drawing a card from a deck and it being a heart.
- C. Flipping a coin and it landing on heads or tails.
- D. Picking a red apple from a mixed fruit bowl.

4) A stem-and-leaf plot of test scores has stem 7 with leaves 2, 5, 8. Which values are represented?

- A. 27, 57, 87
- B. 72, 75, 78
- C. 70, 71, 72
- D. 7.2, 7.5, 7.8



5)

A store sold 640 items. The circle graph shows 26.25% were on sale. How many items were on sale?

- A. 168
- B. 156
- C. 174
- D. 188

6) A box plot shows the distribution of test scores for a class. The median is 78, Q1 is 65, Q3 is 88, the minimum is 45, and the maximum is 95.

Which statement about the data is **CORRECT**?

- A. Exactly 50% of students scored between 65 and 88
- B. The range is 30 points
- C. All students scored above 78
- D. The interquartile range is 23 points



1) Expand $8(6 + 2)$.

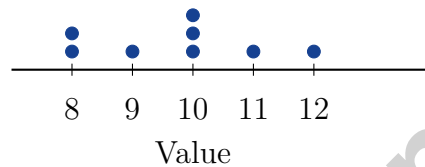
A. $48 + 16$

C. $8 + 8$

B. $48 + 2$

D. 64

2) A dot plot shows the values 8, 8, 9, 10, 10, 10, 11, 12. If you remove one value of 10, how does the mean change?


 A. The mean decreases

 C. The mean increases

 B. The mean stays the same

 D. The mean becomes zero

3) An online store's daily revenue (dollars) for one week: $\{1200, 1250, 1300, 1350, 1400, 1450, 3000\}$. The manager made an error: which statistic is least affected by this \$3000 outlier?

 A. Mean

 C. Median

 B. Range

 D. Standard deviation

4) A lottery picks one number from 1 to 100. What is the probability of picking a number that is a multiple of 10?

A. $\frac{1}{100}$

C. $\frac{1}{5}$

B. $\frac{1}{10}$

D. $\frac{1}{2}$



5) A stem-and-leaf plot shows daily temperatures (in °F) recorded during winter:

Stem	Leaf
3	2, 5, 9
4	1, 4, 6, 8
5	0, 3, 7

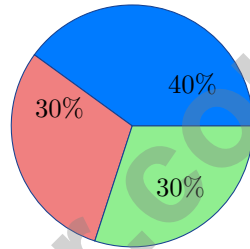
How many temperatures are recorded?

A. 7

C. 10

B. 8

D. 11



6)

In the circle graph, what is the central angle of the largest section if it represents 40%?

A. 108°

C. 144°

B. 120°

D. 160°

7) A stem-and-leaf plot shows test scores: Stem 6: Leaf 5, 7, 9 Stem 7: Leaf 1, 2, 2, 4, 4, 8 Stem 8: Leaf 0, 3, 6, 9 Stem 9: Leaf 2, 5

What is the median test score?

A. 72

C. 78

B. 80

D. 74



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Texas STAAR Practice Test Answer Keys

How to use this Texas STAAR answer section with a Grade 6 student:

1. check the answer first, then write one quick reason the choice is correct
2. mark questions to try again, especially the skills that feel connected to bold but careful reasoning
3. rework the problem before reading the full explanation, using this reminder:
Make the setup big and clear before doing the math: mark clues, solve, and verify.

A calm Texas correction routine turns every missed item into useful practice. Work one round, study the hard spots, and return with a stronger plan for the next STAAR-style set.



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Texas Practice Test Answers and Explanations

Review the five printed STAAR tests with confident, careful, and ready for the next route habits.

Practice Test 1 Answers and Explanations

- 1) **Choice B is correct.** **6.5(A)** Using the point (2, 1): unit rate = $1 \div 2 = 0.5$ points per minute. Or from (10, 5): unit rate = $5 \div 10 = 0.5$ points per minute.
- 2) **Choice C is correct.** **6.4(B)** Actual dimensions: $5 \times 2 = 10$ m and $3 \times 2 = 6$ m. Perimeter: $2(10 + 6) = 32$ m.
- 3) **Choice B is correct.** **6.4(B)** $\$120 \div 12 = \10 per month.
- 4) **Choice D is correct.** **6.5(B)** 60% of 15 = $0.60 \times 15 = 9$ kg.
- 5) **The correct answer is 3.** **6.5(C)** Number of green marbles = $\frac{1}{3} \times 9 = 3$.
- 6) **Choice C is correct.** **6.4(D)** The ratio 60 : 1 (miles to hours) means 60 miles per 1 hour. For 5 hours, multiply: $60 \times 5 = 300$ miles.
- 7) **Choice C is correct.** **6.1(D)** Every valid pair must simplify to 3 : 4. The pairs 6 : 8, 9 : 12, and 15 : 20 all simplify to 3 : 4, but 12 : 15 simplifies to 4 : 5, so it does not match.
- 8) **Choice D is correct.** **6.4(D)** Divide area by time: $48 \div 2 = 24$ square feet per hour.
- 9) **Choice C is correct.** **6.4(F)** The ratio is 3 : 7. When espresso is 6 (multiply by 2), milk is $7 \times 2 = 14$ oz.
- 10) **Choice C is correct.** **6.4(E)** $\frac{18}{20} = \frac{90}{100} = 90\%$ (multiply numerator and denominator by 5).
- 11) **Choice B is correct.** **6.4(F)** For 4 people (half of 8), halve the amount: $\frac{3}{4} \div 2 = \frac{3}{4} \times \frac{1}{2} = \frac{3}{8}$ cup.
- 12) **Choice A is correct.** **6.4(H)** Divide: $36 \div 36 = 1$ yard.
- 13) **Choice D is correct.** **6.14(B)** Overspend: $\$180 - \$150 = \$30$. Percentage: $\frac{\$30}{\$150} = 0.20 = 20\%$.
- 14) **Choice B is correct.** **6.6(C)** The data point (0, 2) shows that the line does not pass through the origin. The ratios are not constant either: $4/1 = 4$, $6/2 = 3$, and $8/3$ is not equal to 3. So the relationship is not proportional.
- 15) **Choice A is correct.** **6.10(A)** Actual spending: $\$8000 + \$1200 = \$9200$. Percent over: $\$1200 \div \$8000 = 0.15 = 15\%$.
- 16) **The correct answer is 43.** **6.13(A)** In order: 32, 35, 38, 41, 43, 46, 49, 50, 54. With 9 values (odd), the median is the 5th value: 43.
- 17) **The correct answer is $\frac{1}{6}$.** **6.5(C)** The fraction is $60^\circ / 360^\circ = 1/6$.
- 18) **Choice C is correct.** **6.14(D)** $\frac{7}{8} \times \frac{4}{1} = \frac{28}{8} = \frac{7}{2} = 3\frac{1}{2}$.
- 19) **Choice A is correct.** **6.3(E)** $2,805 \div 15 = 187$. Check: $15 \times 187 = 2,805$.
- 20) **Choice A is correct.** **6.3(D)** Align the decimal points. In the tenths place, 6 is smaller than 8, so regroup one whole as ten tenths: the 5 becomes 4 and the tenths become 16. Then $16 - 8 = 8$ tenths, $4 - 3 = 1$ one, and $2 - 1 = 1$ ten, so the result is 11.8.
- 21) **Choice A is correct.** **6.7(A)** This is a GCF problem. The GCF of 30 and 45 is 15. So she can make 15 bracelets with 2 beads of one color and 3 of the other in each.
- 22) **The correct answer is Right-skewed distribution with high outliers.** **6.12(C)** When mean (60) > median (55), the tail points right, pulled by high values. (A) A right-skewed distribution matches. (C) High values pull mean up. (B) is wrong—left skew would give mean < median. (D) is wrong—low values would pull mean down. (E) is wrong—symmetric means mean = median.
- 23) **Choice A is correct.** **6.5(A)** Distributive property: $4(7 + 8) = 4 \cdot 7 + 4 \cdot 8 = 28 + 32 = 60$. Choice A shows the expanded form.
- 24) **Choice C is correct.** **6.14(D)** Negative integers represent values less than zero. A debt of \$8 means owing money, which is represented by -8 .



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Lab Notes for a Young Scientist

Hi, Curious Scientist!

◇ 5 tests. So many experiments! You tested ideas. You watched what worked. You learned a lot. That's how scientists work—and how you work! ◇

★ **Scientists know:** mistakes are facts, not failures. Every problem you missed taught you something. You used those facts to do better next time. ★

Lab Results

- **Hypothesis:** CONFIRMED! Practice makes you better.
- **Method:** STRONG! You try, watch, and adjust.
- **Data:** CAREFUL! You read and copy numbers right.
- **Conclusion:** READY! You can do this test.

Scientist tip: on test day, stay curious. Ask, "What is this asking?" Then experiment with your math tools. You will find the answer!

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

Jay Daie

Your Math Scientist

PRACTICE MORE. ACHIEVE MORE.

This book provides **5 full-length Math practice tests** designed to help Grade 6 students strengthen their skills, build confidence, and excel on standardized assessments.

Each test is carefully crafted to reflect the latest standards and covers a wide range of math topics with realistic questions and detailed answer explanations.



BUILD CONFIDENCE

Practice builds familiarity and reduces test anxiety.



IMPROVE ACCURACY

Sharpen skills and avoid common mistakes.



ACHIEVE SUCCESS

Consistent practice leads to greater results.

WHAT'S INSIDE?



5 Full-Length Practice Tests

Realistic tests designed to mirror actual exam conditions.



Realistic Questions

A variety of question types to strengthen problem-solving skills.



Answer Keys & Explanations

Detailed solutions to help students learn and improve.



Performance Tracking

Track progress and identify areas that need improvement.



Comprehensive Coverage

All essential topics aligned with Grade 6 math standards.



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