

# 5

# FULL-LENGTH

# Texas STAAR

## GRADE 5 MATH

### ★ PRACTICE TESTS ★



**5 FULL-LENGTH  
PRACTICE TESTS**



**COMPLETE  
STANDARDS  
REVIEW**



**SKILL PRACTICE,  
WORD PROBLEMS,  
AND MORE!**

$$\frac{3}{4} + \frac{2}{4} = \frac{5}{4}$$



$$12 \times 3 = 36$$



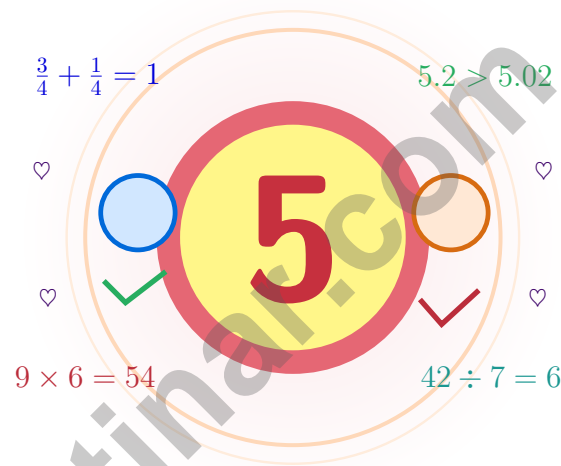
$$\frac{7}{10} = 0.7$$



**BUILT FOR SUCCESS. DESIGNED TO HELP EVERY STUDENT.**

# 5 Texas STAAR Grade 5 Math Practice Tests

*A five-checkpoint adventure for Texas Grade 5 thinkers*



Five full tests, a friendly quick review, smart strategy pages, and student-tested support that turn Grade 5 practice in The Lone Star State into a steady quest of real growth.

**Jay Daie and Reza Nazari**



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# Texas Grade 5: Quest Briefing

A five-checkpoint adventure for Texas Grade 5 thinkers

## Just for Texas Grade 5 Quest Specialists

This book is your practice zone, not a place to be perfect. Each of the five tests gives you a chance to notice clues, choose a strategy, check your thinking, and come back stronger for the next round. Math is like a Texas sky – huge, wide, and full of room for one careful thought after another.

Some questions will feel easy right away. Some will make you slow down, draw, estimate, or retry. That is excellent news. It means your math brain is doing real work.

### See

See the whole question  
before you start the  
math.

### Plan

Plan one careful step  
before the next.

### Reflect

Reflect on what worked  
and what wobbled.

**A strong quest habit for Texas:** slow down, write neatly, estimate before you solve, and keep going even when a problem looks tricky at first. That is exactly how confident math students are built.

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# Your Step-by-Step Plan

A simple routine that turns five tests into real growth

## Step 1: Open

**Open the warm-up review and use it.**

Wake up important ideas before you begin so your brain is ready to use them.

## Step 2: Test

**Take the test with steady focus.**

Find a quiet space, work carefully, and let accuracy matter more than speed.

## Step 3: Reflect

**Notice what was sharp and what was shaky.**

Circle missed questions and look for patterns. Which skill or habit needs another try?

## Step 4: Sharpen

**Practice the shaky skills before the next round.**

Read the explanation, repair the work, and carry that lesson into the next test.

## A Five-Week Texas Quest Map

Week	Mission Focus
Week 1	Take Test 1 like the first mile of a long ranch trail.
Week 2	Take Test 2 and notice one habit that grew steadier.
Week 3	Take Test 3 and polish fractions, decimals, and conversions.
Week 4	Take Test 4 and slow down on multi-step problems.
Week 5	Take Test 5 with calm, careful, confident work.



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## Grade 5 Mathematics Reference Materials

### PERIMETER AND AREA

Perimeter of Rectangle  $P = 2l + 2w$  or  $P = 2(l + w)$

Area of Rectangle  $A = l \times w$

Area of Triangle  $A = \frac{1}{2} \times b \times h$

Volume of Rectangular Prism  $V = l \times w \times h$

### LENGTH

#### Customary

1 foot (ft) = 12 inches (in.)

1 yard (yd) = 3 feet (ft)

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#### Metric

1 meter (m) = 100 centimeters (cm)

1 centimeter (cm) = 10 millimeters (mm)

1 kilometer (km) = 1,000 meters (m)

### CAPACITY

#### Customary

1 cup (c) = 8 fluid ounces (fl oz)

1 pint (pt) = 2 cups (c)

1 quart (qt) = 2 pints (pt)

1 gallon (gal) = 4 quarts (qt)

#### Metric

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### WEIGHT AND MASS

#### Customary

1 pound (lb) = 16 ounces (oz)

#### Metric

1 kilogram (kg) = 1,000 grams (g)

1 gram (g) = 1,000 milligrams (mg)

### TIME

1 minute (min) = 60 seconds (sec)    1 week = 7 days

1 hour (hr) = 60 minutes (min)    1 year = 12 months

1 day = 24 hours (hr)    1 year = 52 weeks



1) Which pair of expressions has the same value?

- A.  $3 \times (4 + 5)$  and  $3 \times 4 + 5$   
 B.  $2 \times (10 - 3)$  and  $2 \times 10 - 3$   
 C.  $4 \times (6 + 2)$  and  $4 \times 6 + 4 \times 2$   
 D.  $5 + (3 \times 7)$  and  $(5 + 3) \times 7$

2) A pizza is cut into 8 slices. You eat  $\frac{3}{8}$  of the pizza. How many slices do you eat?

- A. 1 slice  
 B. 2 slices  
 C. 4 slices  
 D. 3 slices

3) Express 1,000,000,000 as a power of 10.

*Record your answer in the space provided.*

4) An art class tracks students and supplies. Number of students: 3, 6, 9, 12. Pencils needed: 15, 30, 45, 60. How many pencils per student?

- A. 3  
 B. 5  
 C. 15  
 D. 1

5) Two items cost \$5.30 and \$5.03. Which costs more?

- A. \$5.30  
 B. \$5.03  
 C. Equal cost  
 D. Cannot tell



6) What is the volume of a rectangular box with dimensions 8 inches, 6 inches, and 4 inches?

- A. 288 cubic inches                       C. 240 cubic inches  
 B. 216 cubic inches                       D. 192 cubic inches

7) What is  $7 \div \frac{1}{4}$ ?

- A. 28     C. 35  
 B. 14     D. 21

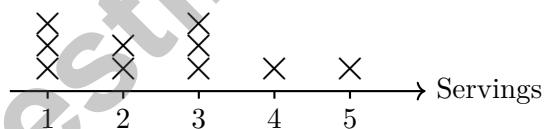
8) A project uses  $\frac{5}{8}$  pound of paint per section. For 2 sections, how much paint is used?

- A.  $\frac{5}{8}$  pound                                       C.  $\frac{10}{8}$  pound or  $1\frac{1}{4}$  pounds  
 B.  $\frac{10}{16}$  pound                                       D.  $\frac{5}{16}$  pound

9) Without calculating, is  $1,205 \times (3 + 2)$  greater than, less than, or equal to  $5 \times (3 + 2)$ ?

- A. Cannot tell                                       C. Equal to  
 B. Less than                                       D. Greater than

10) The line plot shows the number of servings of vegetables eaten per day:



What is the total number of servings eaten by all people?

- A. 25 servings                                       C. 27 servings  
 B. 26 servings                                       D. 28 servings



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1 cup (c) = 8 fluid ounces (fl oz)	1 liter (L) = 1,000 milliliters (mL)
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1) Number line: Start at 1. Back  $\frac{1}{4}$ , then back  $\frac{1}{6}$ . Where?

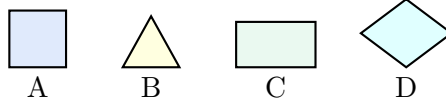
A.  $\frac{2}{10}$

B.  $\frac{5}{12}$

C.  $\frac{8}{12}$

D.  $\frac{7}{12}$

2) The figures below are labeled A-D. Which figure is a rectangle but not a square?


 A. Figure A

 B. Figure B

 C. Figure C

 D. Figure D

3) A distance-time pattern begins at  $(0, 0)$ . Each step increases time by 1 and distance by 2. Which rule describes this pattern?

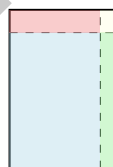
 A. Distance equals time

 B. Distance is twice the time

 C. Distance is 2 more than time

 D. Distance is half the time

4) Which shows the area of a rectangle with length  $2\frac{1}{3}$  feet and width  $3\frac{1}{2}$  feet?


 A.  $8\frac{1}{6}$  square feet

 B.  $8\frac{1}{3}$ 
 C.  $5\frac{5}{6}$ 
 D. 9

5) A gardener planted flowers in two beds. One bed is  $\frac{3}{10}$  meter wide and the other is  $\frac{1}{5}$  meter wide. What is the total width in simplest form?

 A.  $\frac{4}{15}$  meter

 B.  $\frac{1}{2}$  meter

 C.  $\frac{5}{10}$  meter

 D.  $\frac{3}{5}$  meter


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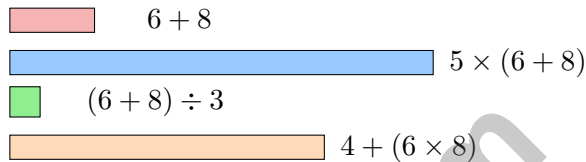
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1) A rectangular fish tank has a base of 6 inches by 4 inches. If the tank is 5 inches tall, what is its volume?

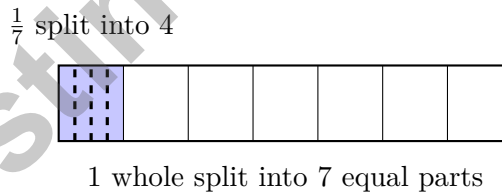
- A.  $100 \text{ in}^3$ 
 C.  $120 \text{ in}^3$   
 B.  $110 \text{ in}^3$ 
 D.  $150 \text{ in}^3$

2) A comparison shows four scaled bars for four expressions. Which expression has the greatest value?



- A.  $6 + 8$ 
 C.  $(6 + 8) \div 3$   
 B.  $5 \times (6 + 8)$ 
 D.  $4 + (6 \times 8)$

3) The model shows  $\frac{1}{7}$  of a whole split into 4 equal parts. What fraction of the whole is each small part?



- A.  $\frac{1}{28}$ 
 C.  $\frac{1}{4}$   
 B.  $\frac{1}{7}$ 
 D.  $\frac{1}{11}$



## Grade 5 Mathematics Reference Materials

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1) What is  $7 \times 10^2$ ?

A. 49

B. 70

C. 700

D. 7000

2) Maya is building a model rectangular prism out of unit cubes. She uses 4 cubes along the length, 3 cubes along the width, and 5 cubes along the height. How many unit cubes does she use in total?

A. 12 unit cubes

B. 36 unit cubes

C. 60 unit cubes

D. 120 unit cubes

3) True or false:  $0.032 \times 10^2 = 3.2$ ?

A. True

B. False, it equals 32

C. False, it equals 0.32

D. False, it equals 320

4) Place-value chart with regrouping:

Ones	Tenths	Hundredths
2	7	5
+3	+6	+8

What is  $2.75 + 3.68$ ?

A. 6.33

B. 6.43

C. 6.53

D. 7.43



## Practice Test Answer Keys

### How to use this section:

1. check your answer
2. circle missed questions
3. rework them before reading the explanation

**Good correction habits build strong scores.**

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## Practice Test Answers and Explanations

### Practice Test 1 Answers and Explanations

- 1) **Choice C is correct.** **5.4(F)** Choice C works because  $4 \times (6 + 2)$  can be split into  $4 \times 6 + 4 \times 2$ . Both expressions have the same value, 32.
- 2) **Choice D is correct.** **5.3(I)**  $8 \times \frac{3}{8} = 3$  slices. The scaling factor  $\frac{3}{8}$  is less than 1, so the result is smaller than 8.
- 3) **The correct answer is  $10^9$ .** **5.6(B)** A power of 10 tells how many factors of 10 to use. Count the zeros: nine zeros, so  $10^9$ . This confirms the answer.
- 4) **Choice B is correct.** **5.3(I)** Pencils =  $5 \times$  Students:  $3 \times 5 = 15$ ,  $6 \times 5 = 30$ ,  $9 \times 5 = 45$ ,  $12 \times 5 = 60$ .
- 5) **Choice A is correct.** **5.2(B)**  $5.30 > 5.03$  because 3 tenths  $>$  0 tenths. The first item costs more.
- 6) **Choice D is correct.** **5.6(B)** Volume =  $8 \times 6 \times 4 = 192$  cubic inches.
- 7) **Choice A is correct.** **5.3(J)**  $7 \div \frac{1}{4} = 7 \times 4 = 28$ .
- 8) **Choice C is correct.** **5.3(J)**  $2 \times \frac{5}{8} = \frac{10}{8} = 1\frac{1}{4}$  pounds.
- 9) **Choice D is correct.** **5.4(F)** Both expressions multiply by the same grouped amount,  $(3 + 2)$ . Since 1,205 is greater than 5, the first product must be greater.
- 10) **Choice A is correct.** **5.9(A)** Total:  $(1 \times 3) + (2 \times 2) + (3 \times 3) + (4 \times 1) + (5 \times 1) = 3 + 4 + 9 + 4 + 5 = 25$  servings.
- 11) **Choice B is correct.** **5.3(J)**  $\frac{1}{6} \div 3 = \frac{1}{6} \times \frac{1}{3} = \frac{1}{18}$ .
- 12) **Choice B is correct.** **5.6(B)** Dividing by a power of 10 shifts the value to a smaller place.  $5,600 \div 100 = 56$  books per classroom. This confirms the answer.
- 13) **Choice C is correct.** **5.8(B)** The base connects  $(2, 1)$  and  $(8, 1)$ , which are on the same horizontal line. The length is  $8 - 2 = 6$  units.
- 14) **Choice A is correct.** **5.6(B)**  $V = 10 \times 4 \times 7 = 280 \text{ ft}^3$ .
- 15) **Choice B is correct.** **5.3(H)** Add whole parts:  $1 + 2 = 3$ . Add fractions:  $\frac{2}{5} + \frac{1}{5} = \frac{3}{5}$ . Result:  $3\frac{3}{5}$ .
- 16) **Choice C is correct.** **5.8(A)** One repeat moves from  $(0, 0)$  to  $(2, 3)$ . A second repeat adds another 2 to x and another 3 to y, giving  $(4, 6)$ .
- 17) **Choice B is correct.** **5.3(J)** Each whole contains 4 pieces of size  $\frac{1}{4}$ . With 4 wholes, there are  $4 \times 4 = 16$  pieces.
- 18) **Choice D is correct.** **5.3(J)** The model counts half-size pieces in 4 wholes. So the matching equation is  $4 \div \frac{1}{2} = n$ .
- 19) **Choices A, C are correct.** **5.4(F)** Start with the grouped addition:  $8 + 4 = 12$ . Then  $12 \div 2 = 6$ , and  $6 + 1 = 7$ , so A and C are true. Choice B skips the grouping, and choice D gives the wrong final value.
- 20) **The correct answer is 0.04.** **5.6(B)** Move the decimal point one place left:  $0.4 \rightarrow 0.04$ .
- 21) **Choice C is correct.** **5.6(A)** The prism is only 1 unit tall, so it has one layer. The layer has  $7 \times 2 = 14$  unit cubes.
- 22) **Choice C is correct.** **5.6(B)** Volume =  $20 \times 12 \times 15 = 240 \times 15 = 3600 \text{ in}^3$ .
- 23) **Choice B is correct.** **5.5** A parallelogram has both pairs of opposite sides parallel. Its opposite sides are also equal in length.
- 24) **Choice B is correct.** **5.3(I)**  $\frac{2}{3} \times \frac{3}{4} = \frac{2 \times 3}{3 \times 4} = \frac{6}{12}$ , which simplifies to  $\frac{1}{2}$ .
- 25) **Choice A is correct.** **5.6(B)** Each number is 10 times the previous number:  $0.08 \times 10 = 0.8$ , and  $0.8 \times 10 = 8$ .
- 26) **Choice C is correct.** **5.3(H)**  $\frac{5}{12} + \frac{4}{12} = \frac{9}{12} = \frac{3}{4}$  of the string.
- 27) **The correct answer is  $3\frac{1}{4}$ .** **5.3(H)** Rewrite  $4\frac{1}{2} = 4\frac{2}{4}$ . Subtract:  $(4 - 1) + (\frac{2}{4} - \frac{1}{4}) = 3\frac{1}{4}$ .
- 28) **Choice C is correct.** **5.4(F)** Multiplying by 100 and then dividing by 10 has the same effect as multiplying by 10. So both expressions match  $24 \times 10$ .
- 29) **Choice A is correct.** **5.2(A)** One-tenth of 3.6 is  $\frac{1}{10} \times 3.6 = 3.6 \div 10 = 0.36$ .
- 30) **Choice D is correct.** **5.8(C)** The first coordinate, 6, matches the x-axis label: minutes. The second coordinate, 72, matches the y-axis label: cookies baked. So the point means cookies baked is 72 when minutes is 6.



Greenhouse Growth Journal

## Hello, Master Gardener!

★ Magnificent cultivation! You've tended five complete mathematical gardens, planting concepts, nurturing understanding, and harvesting knowledge like an expert botanist! Each problem was a seed that needed care, and you've watched your mathematical garden flourish beautifully. Your botanical expertise in mathematics has reached impressive levels! ★

◇ **Here's what master gardeners understand:** healthy gardens require consistent care, patience, and knowledge of growth cycles. They prepare soil, water regularly, and remove obstacles to growth. You've provided that same careful attention to your mathematical understanding through these five tests! Your knowledge has deep roots now and continues growing stronger! ◇

### Garden Growth Assessment

1. **Root Development:** Your mathematical foundation is deep and stable!
2. **Healthy Growth:** Your skills continue expanding and strengthening!
3. **Pest Resistance:** You handle challenging problems without wilting!
4. **Harvest Ready:** Your garden is flourishing and productive!

**Botanical wisdom:** gardeners know that plants with strong roots can weather any storm. Your mathematical roots the foundational concepts you've mastered are incredibly strong. On test day, when faced with challenging problems, trust that your roots will support you. You've cultivated knowledge that will serve you reliably!

Want to share your mathematical garden's progress or discuss cultivation techniques? Send your horticultural observations to [reza@testinar.com](mailto:reza@testinar.com). I love seeing mathematical gardens bloom!

**Reza Nazari & Jay Daie**

Your Math Coaches for Strong Foundations

# 5 FULL-LENGTH TESTS. STRONG SKILLS. BRIGHTER RESULTS.



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