

# Pennsylvania

# PSSA

## GRADE 6

# MATH

# PRACTICE TESTS

Standards Aligned Problem Solving  
For Comprehensive Assessment Programs



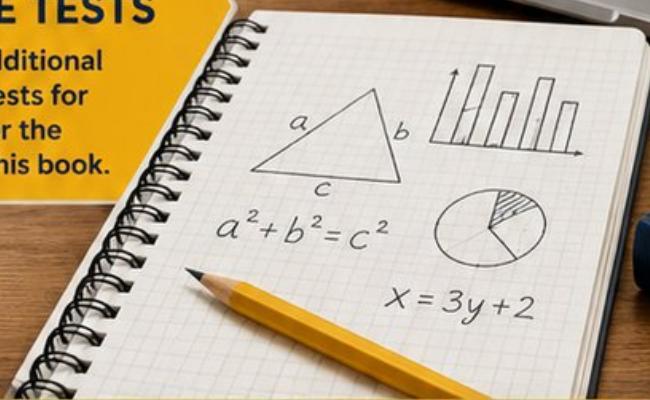
### 5 PRINTED TESTS

- ✓ 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.

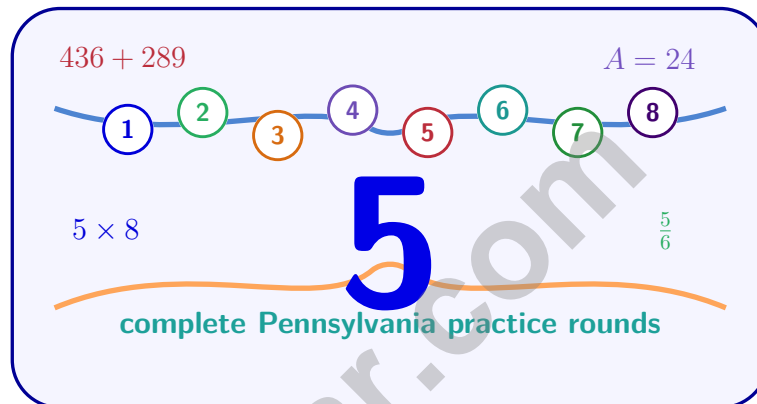


PREPARE • PRACTICE • SUCCEED



# 5 Pennsylvania PSSA Grade 6 Math Practice Tests

*Standards-Aligned Keystone Practice Habits for Pennsylvania System of School Assessment*



Five complete 40-question Grade 6 practice rounds for PSSA, built for Keystone practice habits 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, Pennsylvania Math Explorer!

Eight focused rounds using Keystone practice habits

This book gives you five full Grade 6 practice tests for PSSA. Each round uses ridge roads, town squares, and strong step-by-step work as a fresh mental backdrop while you read closely, choose a smart strategy, show your work, and check whether your answer makes sense.

## Your Pennsylvania Practice Promise

Use each clue as a keystone: connect facts, solve carefully, and verify the answer.

Read

Plan

Check

## How to Use This Book

A five-session routine for Keystone practice habits

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

**Pennsylvania review rhythm:** After each round, choose one correction habit to hold the next test together.



## What Is Inside?

Eight PSSA 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. Keystone practice habits means recognizing the skill even when the next question changes topic, changes format, or asks for an explanation.



Scan me!  
For more practice  
& answers

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1) Which expression matches “the product of a number  $f$  and the difference of 10 and 2”?

A.  $f \cdot 10 - 2$

C.  $(f - 10) \cdot 2$

B.  $f - 10 + 2$

D.  $f(10 - 2)$

2) A person’s income is budgeted as: 45% essential expenses, 30% savings, 20% wants, and 5% other. Which allocation category receives the least money?

 A. Essential expenses C. Wants B. Savings D. Other

3) Three phone plans offer different rates: Plan A: 500 minutes for \$35, Plan B: 800 minutes for \$50, Plan C: 1000 minutes for \$60. Which plan has the lowest cost per minute?

Plan	Minutes	Cost (\$)	Cost per Min
A	500	35	\$0.07
B	800	50	\$0.0625
C	1000	60	\$0.06

 A. Plan A (\$0.07 per min) C. Plan C (\$0.06 per min) B. Plan B (\$0.0625 per min) D. Plans B and C are tied

4) A restaurant receives 3,744 napkins in boxes of 16. How many boxes did they receive?

 A. 234 C. 240 B. 230 D. 244

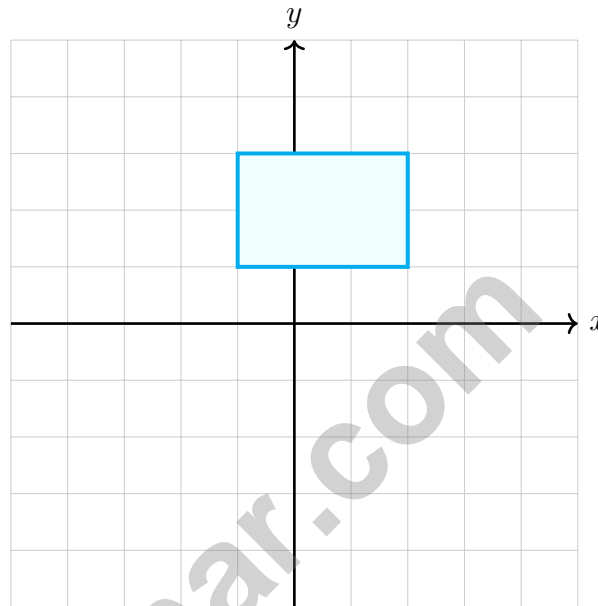
5) Factor  $20 + 16$  using the GCF.

A.  $2(10 + 8)$

B.  $4(5 + 4)$

C.  $5(4 + 3.2)$

D.  $8(2.5 + 2)$



6)

A rectangle has vertices at  $(-1, 3)$ ,  $(2, 3)$ ,  $(2, 1)$ , and  $(-1, 1)$ . If it is translated 3 units right and 2 units down, what are the coordinates of the image of  $(-1, 3)$ ?

A.  $(2, 1)$

B.  $(-4, 5)$

C.  $(2, 5)$

D.  $(-4, 1)$

7) A recipe uses flour, sugar, and butter in the ratio  $3 : 2 : 1$ . If you use 2 cups of sugar, how much flour do you need?

A. 2 cups

B. 6 cups

C. 4 cups

D. 3 cups



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& answers

8) A garden has 4 red flowers and 6 yellow flowers. Which statement correctly describes the ratio of red to yellow flowers?

- A. For every 2 red flowers there is 1 yellow flower.
- B. For every 1 red flower there are 2 yellow flowers.
- C. For every 2 red flowers there are 3 yellow flowers.
- D. For every 3 red flowers there are 4 yellow flowers.

9) A dataset has  $\min = 3$ ,  $Q_1 = 7$ ,  $\text{median} = 11$ ,  $Q_3 = 15$ ,  $\max = 22$ . What is the range?

10) An online service charges \$35 per month. How much will it cost for a full year?

- A. \$47
- B. \$280
- C. \$360
- D. \$420

11) A store has two cereal brands:

Brand	Size	Price
Honey Flakes	12 oz	\$3.60
Crispy Oats	16 oz	\$5.12

Which brand has the lower unit price per ounce?

- A. Honey Flakes at \$0.30/oz
- B. Honey Flakes at \$0.40/oz
- C. Crispy Oats at \$0.30/oz
- D. Crispy Oats at \$0.40/oz





5) A container has 15 balls: 5 red, 4 blue, 3 yellow, and 3 green. If one ball is drawn at random, what is the probability it is **not** red?

A.  $\frac{2}{3}$

B.  $\frac{2}{5}$

C.  $\frac{1}{3}$

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

6) A class conducted a survey on favorite ice cream flavors: vanilla (18 students), chocolate (22 students), strawberry (12 students), mint (8 students). Which data display would BEST show the relative popularity of each flavor as a proportion of the total?

- A. Double-bar graph
- B. Circle graph

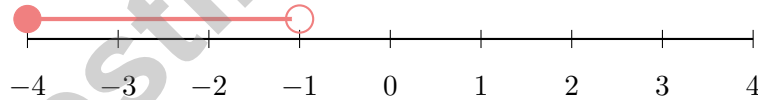
- C. Histogram
- D. Line plot

7) Marcus wants to save \$600 for a laptop. He saves \$40 per month. How many months will it take him to reach his goal?

- A. 12 months
- B. 15 months

- C. 18 months
- D. 20 months

8)



Which inequality matches the number line above?

- A.  $-4 \leq x < -1$
- B.  $-4 < x \leq -1$

- C.  $-4 < x < -1$
- D.  $-4 \leq x \leq -1$



Scan me!  
For more practice  
& answers

1) For which data set is the mean equal to the median?

A. 1, 2, 3, 4, 20

C. 1, 2, 2, 2, 10

B. 2, 4, 6, 8, 10

D. 5, 10, 15, 20, 100

2) A data set has values: 5, 7, 7, 7, 9, 9, 12, 12, 12, 12, 15. What is the mode?

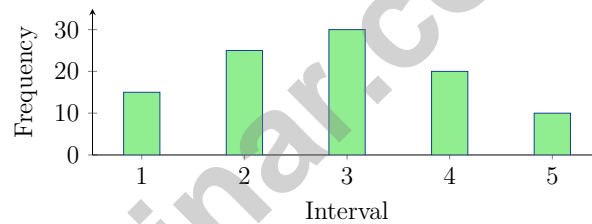
A. 5

C. 7

B. 9

D. 12

3) A histogram is divided into five equal intervals for a set of 100 data points. The frequencies are: Interval 1: 15; Interval 2: 25; Interval 3: 30; Interval 4: 20; Interval 5: 10. What is the frequency for Interval 3?



A. 15

C. 30

B. 20

D. 25



4)

Notebooks Purchased	Total Cost (\$)
3	12
5	20
8	$k$

Use the table to find the cost per notebook and calculate the value of  $k$  when 8 notebooks are purchased.

5) Compare two box plots: Dataset A has median 50 and IQR 15; Dataset B has median 45 and IQR 20. Which statement is true?

- A. Dataset A has a higher center and less spread.
- B. Dataset A has a lower center and more spread.
- C. Both datasets have the same center.
- D. Dataset B is more skewed.

6) Solve for  $x$ :  $5x = 30$ .



Scan me!  
For more practice  
& answers

**Pennsylvania PSSA Practice Test Answer Keys**

**How to use this Pennsylvania PSSA 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 Keystone practice habits
3. rework the problem before reading the full explanation, using this reminder: Use each clue as a keystone: connect facts, solve carefully, and verify the answer.

**A calm Pennsylvania correction routine turns every missed item into useful practice. After each round, choose one correction habit to hold the next test together.**



## Pennsylvania Practice Test Answers and Explanations

Review the five printed PSSA tests with structured, confident, and ready for the next keystone habits.

### Practice Test 1 Answers and Explanations

- Choice D is correct.** [CC.2.2.6.B.1](#) “The difference of 10 and 2” is  $(10 - 2)$ . “The product of  $f$  and” that difference is  $f(10 - 2)$ .
- Choice D is correct.** [CC.2.2.6.B.3](#) Comparing the percentages: 45%, 30%, 20%, and 5%, the smallest is 5% for Other.
- Choice C is correct.** [CC.2.1.6.D.1](#) Plan A:  $35 \div 500 = 0.07$  per min. Plan B:  $50 \div 800 = 0.0625$  per min. Plan C:  $60 \div 1000 = 0.06$  per min. Plan C is lowest.
- Choice A is correct.** [CC.2.1.6.E.1](#)  $3,744 \div 16 = 234$ . The restaurant received 234 boxes.
- Choice B is correct.** [CC.2.1.6.E.3](#) GCF of 20 and 16 is 4. So  $20 \div 16 = 4(5 \div 4)$ . Only Choice B uses the GCF with whole numbers.
- Choice A is correct.** [CC.2.1.6.D.1](#) Translate:  $(-1, 3) \rightarrow (-1 + 3, 3 - 2) = (2, 1)$ .
- Choice D is correct.** [CC.2.1.6.D.1](#) Use the order flour:sugar:butter. Sugar is the 2-part amount, and it is 2 cups, so one ratio part is 1 cup. Flour is 3 parts, or 3 cups.
- Choice C is correct.** [CC.2.1.6.D.1](#) Red comes first and yellow comes second, so write  $4 : 6$ . Dividing both parts by 2 gives  $2 : 3$ , which means for every 2 red flowers there are 3 yellow flowers.
- The correct answer is 19.** [CC.2.2.6.B.3](#) Range = max - min =  $22 - 3 = 19$ .
- Choice D is correct.** [CC.2.1.6.D.1](#) Multiply the monthly rate by 12 months:  $35 \times 12 = 420$  dollars per year.
- Choice A is correct.** [CC.2.3.6.A.1](#) Honey Flakes cost  $3.60 \div 12 = \$0.30$  per ounce. Crispy Oats cost  $5.12 \div 16 = \$0.32$  per ounce. Honey Flakes has the lower unit price.
- Choice B is correct.** [CC.2.1.6.D.1](#) The ratio is  $3 : 5$ . When shots are 25 (multiply by 5), goals are  $3 \times 5 = 15$ .
- Choice A is correct.** [CC.2.1.6.D.1](#) Using two points on the line, e.g.,  $(1, 2)$  and  $(2, 4)$ : slope =  $\frac{4 - 2}{2 - 1} = 2$  km/hr. Verify with  $(4, 8)$ :  $8 \div 4 = 2$  km/hr. The constant rate is 2 km per hour.
- Choice A is correct.** [CC.2.1.6.E.1](#)  $0.006 \times 100 = 0.6\%$ .
- Choice C is correct.** [CC.2.1.6.D.1](#) 30% of  $\$18 = 0.30 \times 18 = \$5.40$ . Sale price is  $\$18 - \$5.40 = \$12.60$ .
- Choice B is correct.** [CC.2.1.6.D.1](#) Multiply:  $3 \times 1000 = 3000$  mL.
- Choice B is correct.** [CC.2.1.6.D.1](#) Amy:  $\$8.00 \times 8 = \$64$ . Ben:  $\$7.00 \times 12 = \$84$ . So Ben earns more.
- The correct answer is 5.** [CC.2.1.6.E.2](#) Subtract the ranges:  $15 - 10 = 5$ .
- Choice A is correct.** [1.6.D](#) Divide:  $5280 \text{ feet} \div 200 \text{ feet/inch} = 26.4$  inches.
- The correct answer is The center is the peak, and the mean, median, and mode are approximately equal.** [CC.2.1.6.E.1](#) For a symmetric, bell-shaped distribution, A is correct: the mean, median, and mode align at the center. B is correct: the classic bell curve peaks at the center and tails off symmetrically. C and D describe skewed distributions, and E would not be bell-shaped.
- Choice A is correct.** [CC.2.1.6.E.1](#)  $\frac{3}{8} \div \frac{1}{4} = \frac{3}{8} \times 4 = \frac{12}{8} = \frac{3}{2}$ . So  $\frac{3}{8}$  is  $1\frac{1}{2}$  jump lengths of size  $\frac{1}{4}$ .
- Choice A is correct.** [CC.2.1.6.E.1](#)  $52 \times 3 = 156$ . Since 5.2 has one decimal place, the product is 15.6.
- Choice A is correct.** [CC.2.1.6.E.3](#) 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.
- Choice C is correct.** [CC.2.1.6.E.1](#) On a number line, negative numbers are to the left of zero.  $-5$  is located five units to the left of zero.
- Choice A is correct.** [CC.2.2.6.B.3](#) The points shown are the same distance from zero on opposite sides, so they are opposites.



Trail Guide's Final Note

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## Hi, Brave Trail-Walker!

◇ You walked all 5 miles of the practice trail. Smooth paths, steep climbs, narrow passes. Every step taught you something. ◇

★ **Trail guides know:** the most important thing is to keep moving. Slow steps still get you there. You have a steady stride now. ★

### Trail Survey

- **Route Knowledge:** You know lots of problem types.
- **Steady Pace:** You don't rush. You don't stop.
- **Pack Loaded:** You have all the math tools you need.
- **Confidence:** You trust your training.

**Guide's tip:** on test day, stay on the trail you've walked before. Use the strategies you've practiced. Trust the route. The summit is one steady walk away!

If you want to share something or ask a question, please email me at [jay@testinar.com](mailto:jay@testinar.com).

**Jay Daie**

Your Math Trail Guide

# 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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