

Student Workbook

and Two Realistic PSAT Math Tests

PSAT Math Exercise Book 2019

- Content 100% aligned with the 2019 PSAT test
- Written by PSAT Math tutors and test experts
- Complete coverage of all PSAT Math concepts and topics which you will be tested
- Over 2,500 additional PSAT math practice questions
- Abundant Math skill building exercises

2 full-length PSAT Math practice tests with detailed answers

Reza Nazari & Ava Ross

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PSAT Math Exercise Book

Student Workbook and Two Realistic

PSAT Math Tests

By

Reza Nazari & Ava Ross

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Reza Nazari & Ava Ross

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Description

Get ready for the PSAT Math Test with a PERFECT Math Workbook!

PSAT Math Exercise book, which reflects the 2019 test guidelines and topics, is dedicated to preparing test takers to ace the PSAT Math Test. This PSAT Math workbook's new edition has been updated to replicate questions appearing on the most recent PSAT Math tests. Here is intensive preparation for the PSAT Math test, and a precious learning tool for test takers who need extra practice in math to raise their PSAT Math scores. After completing this workbook, you will have solid foundation and adequate practice that is necessary to ace the PSAT Math test. **This workbook is your ticket to score higher on PSAT Math.**

The updated version of this hands-on workbook represents extensive exercises, math problems, sample PSAT questions, and quizzes with answers and detailed solutions to help you hone your math skills, overcome your exam anxiety, and boost your confidence -- and do your best to defeat PSAT exam on test day.

Each of math exercises is answered in the book and we have provided explanation of the answers for the two full-length PSAT Math practice tests as well which will help test takers find their weak areas and raise their scores. This is a unique and perfect practice book to beat the PSAT Math Test.

Separate math chapters offer a complete review of the PSAT Math test, including:

- ✓ Arithmetic and Number Operations
- ✓ Algebra and Functions,
- ✓ Geometry and Measurement
- ✓ Data analysis, Statistics, & Probability
- ✓ … and also includes **two full-length practice tests!**

The surest way to succeed on PSAT Math Test is with intensive practice in every math topic tested--and that's what you will get in ***PSAT Math Exercise Book***. Each chapter of this focused format has a comprehensive review created by Test Prep experts that goes into detail to cover all of the content likely to appear on the PSAT Math test. Not only does this all-inclusive workbook offer everything you will ever need to conquer PSAT Math test, it also contains two full-length and realistic PSAT Math tests that reflect the format and question types on the PSAT to help you check your exam-readiness and identify where you need more practice.

Effortless Math Workbook *for the PSAT Test* contains many exciting and unique features to help you improve your test scores, including:

- ✓ Content 100% aligned with the 2019 PSAT test
- ✓ Written by PSAT Math tutors and test experts
- ✓ Complete coverage of all PSAT Math concepts and topics which you will be tested
- ✓ Over 2,500 additional PSAT math practice questions in both multiple-choice and grid-in formats with answers grouped by topic, so you can focus on your weak areas
- ✓ Abundant Math skill building exercises to help test-takers approach different question types that might be unfamiliar to them
- ✓ Exercises on different PSAT Math topics such as integers, percent, equations, polynomials, exponents and radicals
- ✓ 2 full-length practice tests (featuring new question types) with detailed answers

This PSAT Math Workbook and other Effortless Math Education books are used by thousands of students each year to help them review core content areas, brush-up in math, discover their strengths and weaknesses, and achieve their best scores on the PSAT test.

Do NOT take the PSAT test without reviewing the Math questions in this workbook!

About the Author

Reza Nazari is the author of more than 100 Math learning books including:
– Math and Critical Thinking Challenges: For the Middle and High School Student
– PSAT Math in 30 Days
– ASVAB Math Workbook 2018 - 2019
– Effortless Math Education Workbooks
– and many more Mathematics books …

Reza is also an experienced Math instructor and a test–prep expert who has been tutoring students since 2008. Reza is the founder of Effortless Math Education, a tutoring company that has helped many students raise their standardized test scores—and attend the colleges of their dreams. Reza provides an individualized custom learning plan and the personalized attention that makes a difference in how students view math.

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Chapter 1:

Basics

Topics that you'll practice in this chapter:

- ✓ Simplifying Fractions
- ✓ Adding and Subtracting Fractions
- ✓ Multiplying and Dividing Fractions
- ✓ Adding and Subtract Mixed Numbers
- ✓ Multiplying and Dividing Mixed Numbers
- ✓ Adding and Subtracting Decimals
- ✓ Multiplying and Dividing Decimals
- ✓ Comparing Decimals
- ✓ Rounding Decimals
- ✓ Factoring Numbers
- ✓ Greatest Common Factor
- ✓ Least Common Multiple

"A Man is like a fraction whose numerator is what he is and whose denominator is what he thinks of himself. The larger the denominator, the smaller the fraction." –Tolstoy

Simplifying Fractions

Simplify each fraction to its lowest terms.

1) $\frac{9}{18} =$

2) $\frac{8}{10} =$

3) $\frac{6}{8} =$

4) $\frac{5}{20} =$

5) $\frac{18}{24} =$

6) $\frac{6}{9} =$

7) $\frac{12}{15} =$

8) $\frac{4}{16} =$

9) $\frac{18}{36} =$

10) $\frac{6}{42} =$

11) $\frac{13}{39} =$

12) $\frac{21}{28} =$

13) $\frac{63}{77} =$

14) $\frac{36}{40} =$

15) $\frac{21}{63} =$

16) $\frac{30}{84} =$

17) $\frac{50}{125} =$

18) $\frac{72}{108} =$

19) $\frac{49}{112} =$

20) $\frac{240}{320} =$

21) $\frac{120}{150} =$

Solve each problem.

22) Which of the following fractions equal to $\frac{4}{5}$? ____

A. $\frac{64}{75}$ B. $\frac{92}{115}$ C. $\frac{60}{85}$ D. $\frac{160}{220}$

23) Which of the following fractions equal to $\frac{3}{7}$? ____

A. $\frac{63}{147}$ B. $\frac{75}{182}$ C. $\frac{54}{140}$ D. $\frac{39}{98}$

24) Which of the following fractions equal to $\frac{2}{9}$? ____

A. $\frac{84}{386}$ B. $\frac{52}{234}$ C. $\frac{96}{450}$ D. $\frac{112}{522}$

Adding and Subtracting Fractions

Find the sum.

1) $\frac{1}{3}+\frac{2}{3}=$

2) $\frac{1}{2}+\frac{1}{3}=$

3) $\frac{2}{5}+\frac{1}{2}=$

4) $\frac{3}{7}+\frac{2}{3}=$

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

6) $\frac{3}{5}+\frac{1}{5}=$

7) $\frac{5}{9}+\frac{1}{2}=$

8) $\frac{3}{5}+\frac{3}{8}=$

9) $\frac{5}{9}+\frac{3}{7}=$

10) $\frac{5}{11}+\frac{1}{4}=$

11) $\frac{3}{7}+\frac{1}{6}=$

12) $\frac{3}{14}+\frac{3}{4}=$

Find the difference.

13) $\frac{1}{2}-\frac{1}{3}=$

14) $\frac{4}{5}-\frac{2}{3}=$

15) $\frac{2}{3}-\frac{1}{6}=$

16) $\frac{3}{5}-\frac{1}{2}=$

17) $\frac{8}{9}-\frac{2}{5}=$

18) $\frac{4}{7}-\frac{1}{9}=$

19) $\frac{2}{5}-\frac{1}{4}=$

20) $\frac{5}{8}-\frac{2}{6}=$

21) $\frac{4}{15}-\frac{1}{10}=$

22) $\frac{7}{20}-\frac{1}{5}=$

23) $\frac{3}{18}-\frac{1}{12}=$

24) $\frac{9}{24}-\frac{3}{16}=$

25) $\frac{3}{7}-\frac{2}{5}=$

26) $\frac{5}{9}-\frac{1}{6}=$

27) $\frac{2}{5}-\frac{1}{10}=$

28) $\frac{5}{12}-\frac{2}{9}=$

29) $\frac{2}{13}-\frac{3}{7}=$

30) $\frac{4}{11}-\frac{5}{8}=$

Multiplying and Dividing Fractions

Find the value of each expression in lowest terms.

1) $\frac{1}{2} \times \frac{3}{4} =$

2) $\frac{3}{5} \times \frac{2}{3} =$

3) $\frac{1}{4} \times \frac{2}{5} =$

4) $\frac{1}{6} \times \frac{4}{5} =$

5) $\frac{1}{5} \times \frac{1}{4} =$

6) $\frac{2}{5} \times \frac{1}{2} =$

7) $\frac{7}{9} \times \frac{1}{3} =$

8) $\frac{5}{7} \times \frac{3}{8} =$

9) $\frac{8}{9} \times \frac{6}{7} =$

10) $\frac{5}{6} \times \frac{3}{5} =$

11) $\frac{3}{8} \times \frac{1}{9} =$

12) $\frac{1}{12} \times \frac{3}{7} =$

Find the value of each expression in lowest terms.

13) $\frac{1}{2} \div \frac{1}{4} =$

14) $\frac{1}{3} \div \frac{1}{2} =$

15) $\frac{2}{5} \div \frac{1}{3} =$

16) $\frac{1}{4} \div \frac{2}{3} =$

17) $\frac{1}{5} \div \frac{3}{10} =$

18) $\frac{2}{7} \div \frac{1}{3} =$

19) $\frac{3}{5} \div \frac{5}{9} =$

20) $\frac{2}{23} \div \frac{2}{9} =$

21) $\frac{4}{13} \div \frac{1}{4} =$

22) $\frac{9}{14} \div \frac{3}{7} =$

23) $\frac{8}{15} \div \frac{2}{5} =$

24) $\frac{2}{9} \div \frac{7}{11} =$

25) $\frac{2}{5} \div \frac{3}{4} =$

26) $\frac{4}{11} \div \frac{2}{5} =$

27) $\frac{2}{15} \div \frac{5}{8} =$

28) $\frac{3}{10} \div \frac{2}{5} =$

29) $\frac{4}{5} \div \frac{3}{7} =$

30) $\frac{2}{11} \div \frac{3}{5} =$

Adding and Subtracting Mixed Numbers

Find the sum.

1) $2\frac{1}{2}+1\frac{1}{3}=$

2) $6\frac{1}{2}+3\frac{1}{2}=$

3) $2\frac{3}{8}+3\frac{1}{8}=$

4) $4\frac{1}{2}+1\frac{1}{4}=$

5) $1\frac{3}{7}+1\frac{5}{14}=$

6) $6\frac{5}{12}+3\frac{3}{4}=$

7) $5\frac{1}{2}+8\frac{3}{4}=$

8) $3\frac{7}{8}+3\frac{1}{3}=$

9) $3\frac{3}{9}+7\frac{6}{11}=$

10) $7\frac{5}{12}+4\frac{3}{10}=$

Find the difference.

11) $3\frac{1}{3}-1\frac{1}{3}=$

12) $4\frac{1}{2}-3\frac{1}{2}=$

13) $5\frac{1}{2}-2\frac{1}{4}=$

14) $6\frac{1}{6}-5\frac{1}{3}=$

15) $8\frac{1}{2}-1\frac{1}{10}=$

16) $9\frac{1}{2}-2\frac{1}{4}=$

17) $9\frac{1}{5}-5\frac{1}{6}=$

18) $14\frac{3}{10}-13\frac{1}{3}=$

19) $19\frac{2}{3}-11\frac{5}{8}=$

20) $20\frac{3}{4}-14\frac{2}{3}=$

21) $2\frac{1}{2}-1\frac{1}{5}=$

22) $3\frac{1}{6}-1\frac{1}{10}=$

23) $16\frac{2}{7}-11\frac{2}{3}=$

24) $15\frac{1}{7}-10\frac{1}{8}=$

25) $12\frac{3}{4}-7\frac{1}{3}=$

26) $15\frac{2}{5}-5\frac{2}{3}=$

Multiplying and Dividing Mixed Numbers

Find the product.

1) $4\frac{1}{3} \times 2\frac{1}{5} =$

2) $3\frac{1}{2} \times 3\frac{1}{4} =$

3) $5\frac{2}{5} \times 2\frac{1}{3} =$

4) $2\frac{1}{2} \times 1\frac{2}{9} =$

5) $3\frac{4}{7} \times 2\frac{3}{5} =$

6) $7\frac{2}{3} \times 2\frac{2}{3} =$

7) $9\frac{8}{9} \times 8\frac{3}{4} =$

8) $2\frac{4}{7} \times 5\frac{2}{9} =$

9) $5\frac{2}{5} \times 2\frac{3}{5} =$

10) $3\frac{5}{7} \times 3\frac{5}{6} =$

Find the quotient.

11) $1\frac{2}{3} \div 3\frac{1}{3} =$

12) $2\frac{1}{4} \div 1\frac{1}{2} =$

13) $10\frac{1}{2} \div 1\frac{2}{3} =$

14) $3\frac{1}{6} \div 4\frac{2}{3} =$

15) $4\frac{1}{8} \div 2\frac{1}{2} =$

16) $2\frac{1}{10} \div 2\frac{3}{5} =$

17) $1\frac{4}{11} \div 1\frac{1}{4} =$

18) $9\frac{1}{2} \div 9\frac{2}{3} =$

19) $8\frac{3}{4} \div 2\frac{2}{5} =$

20) $12\frac{1}{2} \div 9\frac{1}{3} =$

21) $2\frac{1}{8} \div 1\frac{1}{2} =$

22) $1\frac{1}{10} \div 1\frac{3}{5} =$

23) $5\frac{2}{5} \div 1\frac{3}{4} =$

24) $5\frac{1}{2} \div 2\frac{2}{3} =$

25) $3\frac{3}{4} \div 1\frac{1}{5} =$

26) $3\frac{1}{2} \div 1\frac{1}{3} =$

Adding and Subtracting Decimals

Add and subtract decimals.

1) $31.13 - 11.45$

2) $35.25 + 24.47$

3) $73.50 + 22.78$

4) $56.67 - 44.39$

5) $71.47 + 16.25$

6) $68.99 - 53.61$

7) $66.24 - 23.11$

8) $39.75 + 12.85$

9) $229.25 - 84.67$

Find the missing number.

10) $___ + 2.5 = 3.9$

11) $1.7 + ___ = 4.98$

12) $5.25 + ___ = 7$

13) $6.55 - ___ = 2.45$

14) $___ - 3.98 = 5.32$

15) $___ - 11.67 = 14.48$

16) $12.35 + ___ = 14.78$

17) $___ - 23.89 = 13.90$

18) $___ + 17.28 = 19.56$

19) $77.90 + ___ = 102.60$

Multiplying and Dividing Decimals

Find the product.

1) $0.5 \times 0.4 =$

2) $2.5 \times 0.2 =$

3) $1.25 \times 0.5 =$

4) $0.75 \times 0.2 =$

5) $1.92 \times 0.8 =$

6) $0.55 \times 0.4 =$

7) $3.24 \times 1.2 =$

8) $12.5 \times 4.2 =$

9) $22.6 \times 8.2 =$

10) $17.2 \times 4.5 =$

11) $25.1 \times 12.5 =$

12) $33.2 \times 2.2 =$

Find the quotient.

13) $1.67 \div 100 =$

14) $52.2 \div 1{,}000 =$

15) $4.2 \div 2 =$

16) $8.6 \div 0.5 =$

17) $12.6 \div 0.2 =$

18) $16.5 \div 5 =$

19) $13.25 \div 100 =$

20) $25.6 \div 0.4 =$

21) $28.24 \div 0.1 =$

22) $34.16 \div 0.25 =$

23) $44.28 \div 0.5 =$

24) $38.78 \div 0.02 =$