A Fun, Interactive and Concrete Learning Process

Grade 6 FSA 2018 - 2019 Math Workbook

A Comprehensive Review and Step-by-Step Guide to Preparing for the FSA Test

- Targeted, skill-building practices
- Step-by-Step guide for all Math topics
- 2 Complete FSA Practice Tests

Reza Nazari & Ava Ross

Let's Keep in Touch

Follow Us Online

Visit US at

www.EffortlessMath.com

https://www.facebook.com/Effortlessmath

https://goo.gl/2B6qWW

Online Math Lessons

It's easy! Here's how it works.

1- Request a FREE introductory session.

2- Meet a Math tutor online.

3- Start Learning Math in Minutes.

Send Email to: info@EffortlessMath.com

www.EffortlessMath.com

… So Much More Online!

- **FREE Math lessons**
- **More Math learning books!**
- **Online Math Tutors**

Looking for an Online Math Tutor?

Send Email to: info@EffortlessMath.com

Grade 6 FSA Mathematics Workbook 2018 – 2019

A Comprehensive Review and Step–by–Step Guide to Preparing for the FSA Math Test

By

Reza Nazari

& Ava Ross

Copyright © 2018

Reza Nazari & Ava Ross

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, scanning, or otherwise, except as permitted under Section 107 or 108 of the 1976 United States Copyright Ac, without permission of the author.

All inquiries should be addressed to:

info@effortlessMath.com

www.EffortlessMath.com

ISBN–13: 978–1987713374

ISBN–10: 1987713370

Published by: Effortless Math Education

www.EffortlessMath.com

Description

Grade 6 FSA Mathematics Workbook is full of specific and detailed material that will be key to succeeding on the FSA Math. It's filled with the critical math concepts a student will need in order to do well on the test. Math concepts in this book break down the topics, so the material can be quickly grasped. Examples are worked step–by–step, so you learn exactly what to do.

This comprehensive Math workbook brings together everything a student needs to know for the FSA Math section. It is designed to address the needs of FSA test takers who must have a working knowledge of basic Math. It contains most common sample questions that are most likely to appear in the mathematics section of the FSA. This book leaves no stones unturned!

FSA Mathematics Workbook with over 2,500 sample questions and 2 complete FSA tests is all a student needs to fully prepare for the FSA Math. It will help the student learns everything they need to ace the math section of the FSA.

This workbook includes practice test questions. It contains easy–to–read essential summaries that highlight the key areas of the FSA Math test. Effortless Math test study guide reviews the most important components of the FSA Math test. Anyone planning to take the FSA Math test should take advantage of the review material and practice test questions contained in this study guide.

Inside the pages of this comprehensive book, students can learn basic math operations in a structured manner with a complete study program to help them understand essential math skills. It also has many exciting features, including:

- Dynamic design and easy–to–follow activities
- Step–by–step guide for all Math topics
- Targeted, skill–building practices
- A fun, interactive and concrete learning process
- Math topics are grouped by category, so you can focus on the topics you struggle on
- All solutions for the exercises are included, so you will always find the answers
- 2 Complete FSA Math Practice Tests that reflect the format and question types on FSA

FSA Mathematics Workbook is the ideal prep solution for any student who wants to prepare for the FSA test. It efficiently and effectively reinforces learning outcomes through engaging questions and repeated practice, helping students to quickly master basic Math skills.

Effortless Math books have helped thousands of students prepare for standardized tests and achieve their education and career goals. This is done by setting high standards and preparing the best quality Mathematics learning books, and this book is no exception. It is the perfect study aid for the FSA Math test. The student will definitely be well prepared for the test with this comprehensive 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

– GED 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.

To ask questions about Math, you can contact Reza via email at:
reza@EffortlessMath.com

Find Reza's professional profile at:
goo.gl/zoC9rJ

Contents

Chapter 1: Whole Number Operations 9
1–1 Adding Whole Numbers 10
1–2 Subtracting Whole Numbers 11
1–3 Dividing Whole Numbers 12
1–4 Multiplying Whole Numbers 13
1–5 Rounding Whole Numbers 14
1–6 Whole Number Estimation 15
Answers of Worksheets – Chapter 1 16
Chapter 2: Arithmetic and Number Theory 18
2–1 Simplifying Fractions 19
2–2 Adding and Subtracting Fractions 20
2–3 Multiplying and Dividing Fractions 21
2–4 Adding and Subtracting Mixed Numbers 22
2–5 Multiplying and Dividing Mixed Numbers 23
2–6 Adding and Subtracting Decimals 24
2–7 Multiplying and Dividing Decimals 25
2–8 Converting Between Fractions, Decimals and Mixed Numbers 26
2–9 Rounding Numbers 27
2–10 Factoring Numbers 28
2–11 Prime Factorization 29
2–12 Greatest Common Factor 30
2–13 Least Common Multiple 31
2–14 Divisibility Rules 32
Answers of Worksheets – Chapter 2 33
Chapter 3: Real Numbers and Integers 39
3–1 Adding and Subtracting Integers 40
3–2 Multiplying and Dividing Integers 41
3–3 Ordering Integers and Numbers 42
3–4 Arrange, Order, and Comparing Integers 43
3–5 Order of Operations 44

3–6 Mixed Integer Computations 45
3–7 Absolute Value 46
3–8 Integers and Absolute Value 47
3–9 Classifying Real Numbers Venn Diagram 48
Answers of Worksheets – Chapter 3 49
Chapter 4: Percent 52
4–1 Converting Between Percent, Fractions, and Decimals 53
4–2 Percentage Calculations 54
4–3 Find What Percentage a Number Is of Another 55
4–4 Find a Percentage of a Given Number 56
4–5 Percent Problems 57
4–6 Percent of Increase and Decrease 58
Answers of Worksheets – Chapter 4 59
Chapter 5: Algebraic Expressions 61
5–1 Expressions and Variables 62
5–2 Simplifying Variable Expressions 63
5–3 The Distributive Property 64
5–4 Translate Phrases into an Algebraic Statement 65
5–5 Evaluating One Variable 66
5–6 Evaluating Two Variables 67
5–7 Combining like Terms 68
Answers of Worksheets – Chapter 5 69
Chapter 6: Equations 72
6–1 One–Step Equations 73
6–2 One–Step Equation Word Problems 74
6–3 Two–Step Equations 75
6–4 Two–Step Equation Word Problems 76
6–5 Multi–Step Equations 77
Answers of Worksheets – Chapter 6 78
Chapter 7: Proportions and Ratios 80
7–1 Writing Ratios 81

7–2 Simplifying Ratios 82
7–3 Proportional Ratios 83
7–4 Create a Proportion 84
7–5 Similar Figures 85
7–6 Similar Figure Word Problems 86
7–7 Ratio and Rates Word Problems 87
Answers of Worksheets – Chapter 7 88
Chapter 8: Inequalities 91
8–1 Graphing Single – Variable Inequalities 92
8–2 One–Step Inequalities 93
8–3 Two–Step Inequalities 94
8–4 Multi–Step Inequalities 95
Answers of Worksheets – Chapter 8 96
Chapter 9: Exponents and Radicals 99
9–1 Multiplication Property of Exponents 100
9–2 Division Property of Exponents 101
9–3 Powers of Products and Quotients 102
9–4 Zero and Negative Exponents 103
9–5 Negative Exponents and Negative Bases 104
9–6 Writing Scientific Notation 105
9–7 Square Roots 106
Answers of Worksheets – Chapter 9 107
Chapter 10: Measurements 110
10 –1 Inches and Centimeters 111
10 –2 Metric Units 112
10 –3 Distance Measurement 113
10 –4 Weight Measurement 114
Answers of Worksheets – Chapter 10 115
Chapter 11: Plane Figures 117
11 –1 Transformations: Translations, Rotations, and Reflections 118
11–2 The Pythagorean Theorem 119

11 –3 Area of Triangles 120
11 –4 Perimeter of Polygons 121
11 –5 Area and Circumference of Circles 122
11 –6 Area of Squares, Rectangles, and Parallelograms 123
11 –7 Area of Trapezoids 124
Answers of Worksheets – Chapter 11 125
Chapter 12: Solid Figures 127
12 –1 Volume of Cubes and Rectangle Prisms 128
12 –2 Surface Area of Cubes 129
12 –3 Surface Area of a Prism 130
Answers of Worksheets – Chapter 12 131
Chapter 13: Statistics 132
13 –1 Mean, Median, Mode, and Range of the Given Data 133
13 –2 First Quartile, Second Quartile and Third Quartile of the Given Data 134
13–3 Bar Graph 135
13 –4 Box and Whisker Plots 136
13 –5 Stem–And–Leaf Plot 137
13–6 The Pie Graph or Circle Graph 138
13–7 Scatter Plots 139
Answers of Worksheets – Chapter 13 140
FSA Practice Test 1 145
FSA Practice Test 2 166
FSA Practice Tests Answer keys 187

Chapter 1: Whole Number Operations

1–1 Adding Whole Numbers

1–2 Subtracting Whole Numbers

1–3 Dividing Whole Numbers

1–4 Multiplying Whole Numbers

1–5 Rounding whole numbers

1–6 Whole number estimation

1–1 Adding Whole Numbers

Add.

Helpful Hints

1– Line up the numbers.
2– Start with the unit place. (ones place)
3– Regroup if necessary.
4– Add the tens place.
5– Continue with other digits.

Example:

$$\begin{array}{r} 1,349 \\ +2,411 \\ \hline 3,760 \end{array}$$

1) $\begin{array}{r} 1,158 \\ +\ 6,687 \\ \hline \end{array}$

3) $\begin{array}{r} 5,756 \\ +\ 2,712 \\ \hline \end{array}$

5) $\begin{array}{r} 4,257 \\ +5,194 \\ \hline \end{array}$

2) $\begin{array}{r} 5,188 \\ +\ 1,298 \\ \hline \end{array}$

4) $\begin{array}{r} 3,239 \\ +2,562 \\ \hline \end{array}$

6) $\begin{array}{r} 6,215 \\ +2,189 \\ \hline \end{array}$

Find the missing numbers.

7) 1145 + ___ = 1276

8) 500 + 1000 = ___

9) 3200 + ___ = 4300

10) 455 + ___ = 1755

11) ___ + 720 = 1250

12) ___ + 670 = 2230

13) David sells gems. He finds a diamond in Istanbul and buys it for $3,433. Then, he flies to Cairo and purchases a bigger diamond for the bargain price of $5,922. How much does David spend on the two diamonds? _____

1–2 Subtracting Whole Numbers

Helpful Hints

1– Line up the numbers.
2– Start with the units place. (ones place)
3– Regroup if necessary.
4– Subtract the tens place.
5– Continue with other digits.

Example:

$$\begin{array}{r} 5{,}397 \\ -\ 2{,}416 \\ \hline 2{,}981 \end{array}$$

Subtract.

1) $\begin{array}{r} 8{,}519 \\ -\ 5{,}422 \\ \hline \end{array}$

3) $\begin{array}{r} 7{,}821 \\ -\ 3{,}212 \\ \hline \end{array}$

5) $\begin{array}{r} 9{,}290 \\ -\ 3{,}829 \\ \hline \end{array}$

2) $\begin{array}{r} 6{,}222 \\ -\ 4{,}331 \\ \hline \end{array}$

4) $\begin{array}{r} 8{,}756 \\ -\ 6{,}712 \\ \hline \end{array}$

6) $\begin{array}{r} 5{,}117 \\ -4{,}216 \\ \hline \end{array}$

Find the missing number.

7) 2223 – ___ = 1120

8) 3574 – ___ = 2245

9) 1124 – 578 = ___

10) 2300 – ___ = 1250

11) 3780 – 1890 = ___

12) 2880 – 2560 = ___

13) Jackson had $3,963 invested in the stock market until he lost $2,171 on those investments. How much money does he have in the stock market now?

1–3 Dividing Whole Numbers

Helpful Hints

– A typical division problem:
Dividend ÷ Divisor = Quotient

Example:
18,000 ÷ 90 = 200

– In division, we want to find how many times a number (divisor) is contained in another number (dividend).
– The result in a division problem is the quotient.

Find answers.

1) 500 ÷ 100
2) 4000 ÷ 400
3) 1, 500 ÷ 500
4) 1, 800 ÷ 300
5) 2, 700 ÷ 900
6) 800 ÷ 200
7) 1, 400 ÷ 200
8) 2, 500 ÷ 500
9) 4, 800 ÷ 600
10) 9000 ÷ 200
11) 3, 600 ÷ 600
12) 3, 000 ÷ 500
13) 1000 ÷ 200
14) 4, 500 ÷ 900
15) 1, 200 ÷ 600
16) 6, 000 ÷ 200
17) 9, 000 ÷ 300
18) 2, 800 ÷ 400

1–4 Multiplying Whole Numbers

Helpful Hints

– Learn the times tables first!
– For multiplication, line up the numbers you are multiplying.
– Start with the ones place.
– Continue with other digits

Example:
200 × 90 = 18,000

Find the answers.

1) $\begin{array}{r} 2400 \\ \times\ 13 \\ \hline \\ \hline \end{array}$

2) $\begin{array}{r} 1200 \\ \times\ 10 \\ \hline \\ \hline \end{array}$

3) $\begin{array}{r} 3120 \\ \times\ 9 \\ \hline \\ \hline \end{array}$

4) $\begin{array}{r} 4000 \\ \times\ 4 \\ \hline \\ \hline \end{array}$

5) $\begin{array}{r} 2500 \\ \times\ 5 \\ \hline \\ \hline \end{array}$

6) $\begin{array}{r} 3200 \\ \times\ 25 \\ \hline \\ \hline \end{array}$

7) $\begin{array}{r} 4178 \\ \times\ 34 \\ \hline \\ \hline \end{array}$

8) $\begin{array}{r} 9256 \\ \times\ 26 \\ \hline \\ \hline \end{array}$

9) $\begin{array}{r} 3191 \\ \times\ 78 \\ \hline \\ \hline \end{array}$

10) $\begin{array}{r} 4200 \\ \times\ 12 \\ \hline \\ \hline \end{array}$

11) $\begin{array}{r} 6800 \\ \times\ 10 \\ \hline \\ \hline \end{array}$

12) $\begin{array}{r} 8000 \\ \times\ 55 \\ \hline \\ \hline \end{array}$

1–5 Rounding Whole Numbers

Helpful Hints

– Rounding is putting a number up or down to the nearest whole number or the nearest hundred, etc.

Example:
64 rounded to the nearest ten is 60, because 64 is closer to 60 than to 70.

Round each number to the underlined place value.

1) 1<u>9</u>72
2) 2,<u>9</u>95
3) 33<u>6</u>4
4) 12<u>8</u>1
5) 23<u>5</u>5
6) 13<u>3</u>4
7) 1,<u>2</u>03
8) 14<u>5</u>7
9) 7<u>4</u>84
10) 19<u>1</u>4
11) 42<u>3</u>9
12) <u>9</u>,123
13) 3,4<u>5</u>2
14) 2<u>5</u>69
15) 1,<u>2</u>30
16) 7<u>6</u>98
17) 92<u>9</u>3
18) 52<u>3</u>7
19) 24<u>9</u>3
20) 2,<u>9</u>23
21) <u>9</u>,845
22) 45<u>5</u>5
23) 6<u>9</u>39
24) 98<u>6</u>9

1–6 Whole Number Estimation

Helpful Hints

– To estimate means to make a rough guess or calculation.
– To round means to simplify a number by scaling it slightly up or down.

Example:

73 + 69 ≈ 140

Estimate the sum by rounding each added to the nearest ten.

1) 582 + 277

2) 2771 + 1651

3) 7436 + 3575

4) 1542 + 8738

5) 3843 + 6579

6) 4722 + 8186

7) 2419 + 7224

8) 6768 + 3169

9) $\begin{array}{r} 4{,}694 \\ +\ 7{,}359 \\ \hline \end{array}$

10) $\begin{array}{r} 9{,}622 \\ +\ 6{,}114 \\ \hline \end{array}$

11) $\begin{array}{r} 1{,}278 \\ +\ 5{,}313 \\ \hline \end{array}$

12) $\begin{array}{r} 8{,}259 \\ +\ 7{,}229 \\ \hline \end{array}$

Answers of Worksheets – Chapter 1

1–1 Adding Whole Numbers

1) 7,845
2) 6,486
3) 8,468
4) 5,801
5) 9,451
6) 8,404
7) 131
8) 1500
9) 1,100
10) 1300
11) 530
12) 1,560
13) $9,355

1–2 Subtracting Whole Numbers

1) 3,097
2) 1,891
3) 4,609
4) 2,044
5) 5,461
6) 901
7) 1,103
8) 1,329
9) 546
10) 1,050
11) 1,890
12) 320
13) 1,792

1–3 Dividing Whole Numbers

1) 5
2) 10
3) 3
4) 6
5) 3
6) 4
7) 7
8) 5
9) 8
10) 45
11) 6
12) 6
13) 5
14) 5
15) 2
16) 30
17) 30
18) 7

1–4 Multiplying Whole Numbers

1) 31,200
2) 12,000
3) 28,080
4) 16,000
5) 12,500
6) 80,000
7) 142,052
8) 240,656
9) 248,898
10) 50,400
11) 68,000
12) 440,000