BIG IDEAS AND MIDDLE SCHOOL MATHEMATICS

RESOURCES FOR PARENTS AND FAMILIES

STRENGTHEN THE FOUNDATION

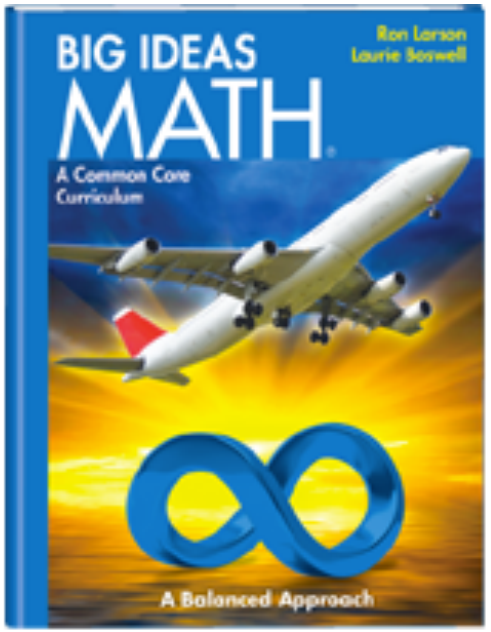
Math Courses in Middle School are targeted at developing abstract algebraic thinking in the adolescent mind.

- Foundations of Algebra
- Pre-Algebra
- Algebra 1

THE BIG IDEAS BOOKS

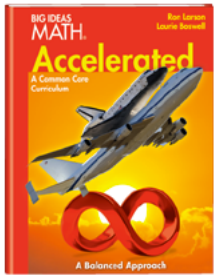
7TH GRADE

8TH GRADE

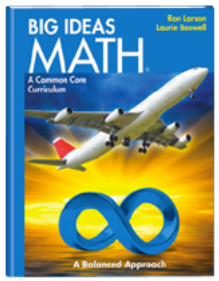


THE BIG IDEAS BOOKS

7TH GRADE



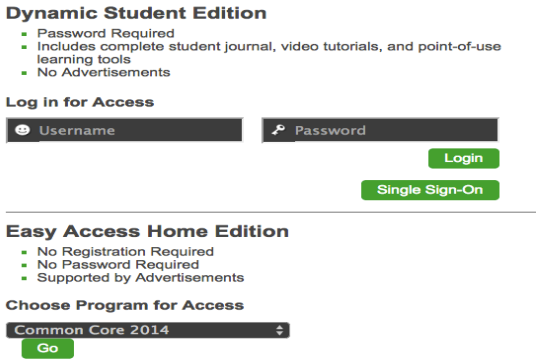
8TH GRADE



- Textbooks are available online at: www.BigIdeasMath.com
- Immediate feedback options include online quizzes and progress checks.
- Answers to the odd questions are available for checking progress.
- Flashcards are also included for each chapter *(See examples)*

ACCESSING THE TEXTBOOK FROM HOME

www.BigIdeasMath.com or from the students links page



Big Ideas Math: Common C

Big Ideas Learning LLC [US] https://www.bigideasmath.com/students/?level=8.50

Apps | Sapphire Software | Teachscape Reflect | my Pearson Training | Church | lancaster, PA all for | iLearnMath.net: AP C | lctcb | PBS KIDS GO! | Other Bookmarks

Dynamic Student Edition

Main

- Standards
- Chapter 1: Integers
- Chapter 2: Rational Numbers
- Chapter 3: Expressions and Equations
- Chapter 4: Inequalities
- Chapter 5: Ratios and Proportions
- Chapter 6: Percents
- Chapter 7: Constructions and Scale Drawings
- Chapter 8: Circles
- Chapter 9: Surface Area and Volume

Connecting...

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- What You Learned Before
- 4.1 Writing and Graphing Inequalities
- 4.2 Solving Inequalities Using Addition or Subtraction
- Study Help
- 4.1-4.2 Quiz
- 4.3 Solving Inequalities Using Multiplication or Division
- 4.4 Solving Two-Step Inequalities
- 4.3-4.4 Quiz
- Chapter Review
- Chapter Test
- Standards Assessment

Inequalities

	What You Learned Before	123
Section 4.1	Writing and Graphing Inequalities	
	Activity	124
	Lesson	126
Section 4.2	Solving Inequalities Using Addition or Subtraction	
	Activity	130
	Lesson	132
	Study Help/Graphic Organizer	136
	4.1–4.2 Quiz	137
Section 4.3	Solving Inequalities Using Multiplication or Division	
	Activity	138
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Section 4.4	Solving Two-Step Inequalities	
	Activity	146
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I really enjoy the projects at the end of the book because they help connect the math to other subjects, like science or art.

Connecting...

Big Ideas Math: Common

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- Math Tool Paper
  - Number Lines without Labels
- Inequality Explorer

- Glossary
  - Multi-Language Glossary
  - Flashcards

- Fair Game Review
  - Exercises 48-51 - Section 3.5
  - Exercise 52 - Section 2.2
- Review
  - Selected Answers
  - Basic Skills Handbook
  - Skills Review Handbook

Essential Question How can you use multiplication or division to solve an inequality?

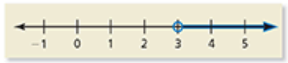
1 ACTIVITY: Using a Table to Solve an Inequality

Work with a partner.

- **Copy and complete the table.**
- **Decide which graph represents the solution of the inequality.**
- **Write the solution of the inequality.**

a. $4x > 12$

x	-1	0	1	2	3	4	5
$4x$							
$4x \stackrel{?}{>} 12$							



b. $-3x \leq 9$

x	-5	-4	-3	-2	-1	0	1
$-3x$							
$-3x \stackrel{?}{\leq} 9$							

COMMON CORE

Inequalities

In this lesson, you will

- solve inequalities using multiplication or division.
- solve real-life problems.

Learning Standard 7.EE.4b

2 ACTIVITY: Solving an Inequality

Work with a partner.

a. Solve $-3x \leq 9$ by adding $3x$ to each side of the inequality first. Then solve the resulting inequality.

b. Compare the solution in part (a) with the solution in Activity 1(b).

Section 4.2 Solving Inequalities Using Addition or Subtraction *(pages 134 and 135)*

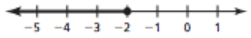
1. Yes, because of the Subtraction Property of Inequality.

3. $x \geq 11$;

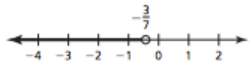
5. $-4 \leq g$;

7. $-6 < y$;

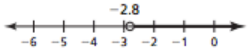
9. $t \leq -2$;



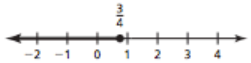
11. $-\frac{3}{7} > b$;



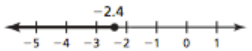
13. $-2.8 < d$;



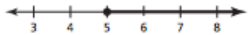
15. $\frac{3}{4} \geq m$;



17. $h \leq -2.4$;



19. The wrong side of the number line is shaded;



21. $7 + 7 + x < 28$; $x < 14$ ft

23. $8 + 8 + 10 + 10 + x \leq 51$; $x \leq 15$ m

25. $x - 3 \geq 5$; $x \geq 8$ ft

27. **a.** $x + 1050 < 2400$; $x < 1350$ watts

b. There is more than one possibility. You can plug in the aquarium and the television, the aquarium and the vacuum cleaner, or the television and the vacuum cleaner.

29. $x = 9$

31. $b = -22$

33. A

Section 4.3 Solving Inequalities Using Multiplication or Division *(pages 143–145)*

1. Multiply each side by 3.

3. *Sample answer:* $-4x < 16$

5. $x \geq -1$

7. $x \leq -35$

9. $x \leq \frac{3}{2}$

11. $c \leq -36$;

13. $x < -32$;