

The book was found

Math Common Core 7Th Grade (Quick Study: Academic)

WORLD'S OF ACADEMICITY

Math Common Core 7th Grade

State Standards

Proportions, percents, integer operations, linear equations, inequalities, geometry, probability & more

RATIOS & PROPORTIONS

Rules: A comparison of two numbers or measurements.
Rate: A ratio in which the two terms are in different units.
Unit rate: A rate that is expressed as a quantity of one (for example, miles per hour).

EX: Bill ran 10 laps around the high school track in 12 minutes. How many laps can he run in 45 minutes? First, find the unit rate.

$$\frac{10 \text{ laps}}{12 \text{ minutes}} = \frac{5}{6} \text{ laps per minute}$$

Bill can run $\frac{5}{6}$ laps per minute. Use the unit rate to solve:

$$\frac{5}{6} = \frac{45}{x} \Rightarrow \frac{5}{6} \cdot x = \frac{45}{6} \Rightarrow x = \frac{45 \cdot 6}{5} = 37.5 \text{ laps}$$

Bill can run 37.5 laps in 45 minutes.

Proportions: Two equal ratios.
EX: Solve for x to complete the proportion.

$$\frac{6}{15} = \frac{x}{25}$$

$$(15x) = (6)(25)$$

$$15x = 150$$

$$\frac{15x}{15} = \frac{150}{15}$$

$$x = 10$$

EX: Terry accumulated x vacation days after working for 9 months. How many vacation days will Terry have after working for 2 years?

$$\frac{6}{9} = \frac{x}{24}$$

$$6x = 144$$

$$\frac{6x}{6} = \frac{144}{6}$$

$$x = 24$$

Terry will have 24 vacation days after working for 2 years.

Tip! Use the unit rate to make sure that the units convert correctly, too!

Proportional Relationships among Quantities

Ratios of input and corresponding output values are proportional.

x	1	2	3	4	5	6
y	2	4	6	8	10	12

Constant of proportionality: $y = kx$; y varies in direct proportion to x , and k is the constant of proportionality.

EX: At a constant speed, a car travels 50 meters in 2 seconds. How long would it take the car to travel 375 meters?

Elapsed Time	Distance Traveled	Speed (Ratio in m/s)
1 second	25 meters	25
2 seconds	50 meters	25
3 seconds	75 meters	25

Time (t) and distance (d) are directly proportional.
 $\frac{d}{t} = \text{constant } (k)$
 $\frac{d}{t} = 25$
 $d = 25t$
 $375 = 25t$
 $\frac{375}{25} = \frac{25t}{25}$
 $15 = t$
 It will take the car 15 seconds to travel 375 meters.

Tip! The graph of a directly proportional relationship will always be a straight line and must pass through the origin.

Percent Problems

Formula: $\frac{\text{percent}}{100} = \frac{\text{part}}{\text{whole}}$

EX: Within the past year, 25% of the 16 stores in a mall have closed. How many stores closed in the mall?

$$\frac{25}{100} = \frac{x}{16}$$

$$100x = 400$$

$$\frac{100x}{100} = \frac{400}{100}$$

$$x = 4$$

Four stores closed in the mall during the past year.

Gratuities

EX: A group of friends went out to dinner. Their bill was \$233. They want to leave an 18% tip for the waiter. How much money should they leave for the tip?

$$\frac{18}{100} = \frac{x}{233}$$

$$100x = 4194$$

$$\frac{100x}{100} = \frac{4194}{100}$$

$$x = 41.94$$

The friends should leave a tip of \$41.94.

Percent Increase or Decrease

EX: The dues in a neighborhood increased from \$24 per month to \$30 per month. Find the percent of increase.

Subtract to find the amount of increase:
 $30 - 24 = 6$

Use a proportion:

$$\frac{\text{difference}}{\text{original amount}} = \frac{x}{100}$$

$$\frac{6}{24} = \frac{x}{100}$$

$$24x = 600$$

$$\frac{24x}{24} = \frac{600}{24}$$

$$x = 25$$

There was a 25% increase.

EX: Between 3:00 p.m. and 6:00 p.m., the temperature dropped from 80 degrees to 60 degrees. Find the percent of decrease.

Subtract to find the amount of decrease:
 $80 - 60 = 20$

Use a proportion:

$$\frac{20}{80} = \frac{x}{100}$$

$$80x = 2000$$

$$\frac{80x}{80} = \frac{2000}{80}$$

$$x = 25$$

The temperature decreased by about 25%.

Simple Interest

EX: Carmen earns 3% a year on money in her savings account. She had \$354 in her account all year. How much interest did she earn?

$$\frac{3}{100} = \frac{x}{354}$$

$$100x = 1062$$

$$\frac{100x}{100} = \frac{1062}{100}$$

$$x = 10.62$$

Carmen earned \$10.62 in interest.

Tip! You can also use the formula $I = prt$, where:
 I = interest earned
 p = principal (money saved)
 r = rate (percent rate)
 t = time, expressed in years

For the previous example,
 $I = 354 \cdot 0.03 \cdot 1 = 10.62$



Synopsis

The Common Core State Standards for mathematics are a set of expectations and skills that students need to master to succeed in college and the real world. BarCharts[™] Math Common Core series aligns with those specific standards to help guide students through their classes. Each guide in the series features real-world problems and examples, illustrations, and tables to help students retain information. The Math Common Core Standards 7th Grade QuickStudy[®] guide focuses on the critical areas of the curriculum so that students can develop fluency and understanding.

Book Information

Series: Quick Study: Academic

Paperback: 6 pages

Publisher: QuickStudy; Lam Crds edition (May 31, 2012)

Language: English

ISBN-10: 1423217691

ISBN-13: 978-1423217695

Product Dimensions: 8.5 x 11 x 0.1 inches

Shipping Weight: 1.6 ounces (View shipping rates and policies)

Average Customer Review: 4.8 out of 5 stars[^] [^] See all reviews[^] (32 customer reviews)

Best Sellers Rank: #10,189 in Books (See Top 100 in Books) #23 in[^] Books > Science & Math > Mathematics > Study & Teaching #3196 in[^] Books > Reference

Customer Reviews

Love these! I have used these with my kids for the past couple of years. They truly give a snapshot of what they are learning and it is a nice and concise reference to all the important facts they will be learning per grade. We have used it many times while doing homework when the kids have forgotten a formula or how to do a certain type of problem. I got these for 5th , 6th and 7th grade for Florida.

This has been a great tool in preparing my daughter for 7th grade math. It tells me what she will need to know for the upcoming school year and has allowed me to pinpoint what would be beneficial to cover over the summer. I am using it in conjunction with Spectrum 7th Grade Math workbook. We review a concept on the Quick Study and then I find the corresponding concept in the workbook for her to complete.

I liked that the common core study topics and examples match what is being taught in class. Wish it had room to be hole punched for notebooks

I'm not sure how I'll use this in the classroom. It's wonderful. However: It's too expensive to buy for the entire class. It's too unethical to photocopy for the entire class.

I love this quick view for CCMS. It's quick to look at and easy to review. I would like to get the 6th and 8th grade versions.

very awesome. has come in handy several times. I use it to review with my child on a daily basis

Purchased this as a side-gift to give to a child that was struggling in math. They were glad to have something that he can easily access/use.

decent chart, but it really just makes the parent feel better knowing that it's there and the kid just ignores it.

[Download to continue reading...](#)

Math Common Core 7Th Grade (Quick Study: Academic) Math Common Core 6Th Grade (Quick Study: Academic) Math Common Core 8Th Grade (Quick Study: Academic) Math Common Core 5Th Grade (Quick Study: Academic) Common Core Math 4 Today, Grade 1: Daily Skill Practice (Common Core 4 Today) Common Core Math 4 Today, Grade 4: Daily Skill Practice (Common Core 4 Today) Praxis Core Academic Skills for Educators Exam Secrets Study Guide: Praxis Test Review for the Praxis Core Academic Skills for Educators Tests Common Core Language Arts 4 Today, Grade 3: Daily Skill Practice (Common Core 4 Today) Common Core Language Arts 4 Today, Grade 2: Daily Skill Practice (Common Core 4 Today) Common Core Language Arts 4 Today, Grade K: Daily Skill Practice (Common Core 4 Today) Common Core Language Arts 4 Today, Grade 4: Daily Skill Practice (Common Core 4 Today) Common Core Language Arts 4 Today, Grade 5: Daily Skill Practice (Common Core 4 Today) Math Fundamentals 1 Quick Reference Guide pamphlet (Quick Study Academic) Math For Everyone Combo Book Hardcover: 7th Grade Math, Algebra I, Geometry I, Algebra II, Math Analysis, Calculus Common Core Math Workbook, Grade 4: Multiple Choice, Everyday Practice (4th Grade) Barron's Core Focus: Grade 6 Test Practice for Common Core Barron's Core Focus: Grade 3 Test Practice for Common Core

Barron's Core Focus: Grade 2 Test Practice for Common Core Go Math! Standards Practice Book,
Grade 2, Common Core Edition Envision Math Common Core: Reteaching and Practice Workbook,
Grade 3

[Dmca](#)