



STANDARDS ALIGNMENT RATIOS & PROPORTIONS

In this curriculum created for grades 7-9, students engage in learning experiences that address standards and practices identified in the Computer Science Teachers Association (CSTA) Computer Science Standards and Common Core Math Standards. The standards addressed throughout the curriculum are listed below. For more detail about the learning activities within the curriculum please visit the Ratios & Proportions Teacher Guide.

COMMON CORE MATH STANDARDS

- Content Standards
 - **CCSS.MATH.CONTENT.6.RP.A.3.B**
 - Solve unit rate problems including those involving unit pricing and constant speed. *For example, if it took 7 hours to mow 4 lawns, then at that rate, how many lawns could be mowed in 35 hours? At what rate were lawns being mowed?*
 - **CCSS.MATH.CONTENT.6.RP.A.3.D**
 - Use ratio reasoning to convert measurement units; manipulate and transform units appropriately when multiplying or dividing quantities.
 - **CCSS.MATH.CONTENT.7.RP.A.2.C**
 - Represent proportional relationships by equations. *For example, if total cost t is proportional to the number n of items purchased at a constant price p , the relationship between the total cost and the number of items can be expressed as $t = pn$.*

COMPUTER SCIENCE TEACHERS ASSOCIATION (CSTA)

- Concepts
 - **2-AP-11:** Create clearly named variables that represent different data types and perform operations on their values.
 - **2-AP-13:** Decompose problems and subproblems into parts to facilitate the design, implementation, and review of programs.
- Practices
 - Creating Computational Artifacts
 - Recognizing and Defining Computational Problems