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Percentile Rank by Mathematics Strand—All Students
NAEP 2015 Mathematics, Grades 4 & 8

The National Assessment of Educational Progress (NAEP) used multiple-choice and constructed-response questions to examine student knowledge and skills in five mathematics strands including (1) number properties and operations, (2) measurement, (3) geometry, (4) statistics, data analysis and probability, and (5) algebra and functions. NAEP does not sample students enrolled in virtual charter schools.

A percentile rank of 56, for example, indicates the "average student" in Idaho scored higher on that particular mathematics strand than 56 percent of students in the nation's public schools. The national norm for public schools is 50. The percentile ranks were computed using Microsoft Excel's NORMSDIST function with NAEP 2015 average scores and standard deviations retrieved from the NAEP Data Explorer.

NAEP 2015 Mathematics Strand Percentile Ranks
Idaho Grades 4 & 8, All Students

	Total	Numbers	Measures	Geometry	Statistics	Algebra
Grade 4	48	48	52	46	49	44
Grade 8	52	52	54	53	51	51

The **NAEP Mathematics Framework** is not a curriculum framework. In broad terms, the framework attempts to answer the question: *What mathematics skills should be assessed on NAEP at grades 4, 8, and 12*? The answer to this question must necessarily take into account the constraints of a large-scale assessment such as NAEP with its limitations on time and resources. Of critical importance is the fact that this document does not attempt to answer the question: *What (or how) mathematics should be taught?* The framework was developed with the understanding that some concepts, skills, and activities in school mathematics are not suitable to be assessed on NAEP, although they may well be important components of a school curriculum. The NAEP mathematics framework is available on the web at

https://www.nagb.org/content/nagb/assets/documents/publications/frameworks/mathematics/2015-mathematics-framework.pdf

The **NAEP Mathematics-Specifications Document** is a companion to the NAEP Mathematics Framework that lays out the basic design of the assessment by *describing the mathematics conten*t that should be tested and the *types of assessment questions* that should be included. It also describes how the various design factors should be balanced across the assessment. The NAEP mathematics-specifications document is available on the web at

https://www.nagb.org/content/nagb/assets/documents/publications/frameworks/mathematics/2009-mathematics-specification.pdf

Note: Some apparent differences between percentile rank estimates may not be statistically significant. **Source**: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2015 Mathematics Assessment.

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