

# NAEP Item Maps

## What is it?

The **NAEP Item Maps** use released questions from previous NAEP assessments to illustrate the knowledge and skills demonstrated by students performing at different performance levels for civics, economics, mathematics, reading, science, and U.S. history.

NAEP Item Maps help answer the question, “What does it mean for students to be at *Basic*, *Proficient*, or *Advanced*, in terms of what they know and can do?” Item Maps help depict this by plotting descriptions of individual assessment items along the NAEP scale. Where the item is plotted on the scale indicates a dividing line: students with scores above that position are likely to answer the question correctly, while those with scores below are less likely to.

## How do I access it?

1. Go to <http://nces.ed.gov/nationsreportcard/itemmaps/>
2. Or, click **Sample Questions** on the home page at <http://nces.ed.gov/nationsreportcard/>. Then click the link for **Item Maps**.

**NAEP Item Map: Mathematics, Grade 4, 2007**

The item map below contains selected item descriptions mapped to the 2007 NAEP mathematics scale. The map helps to illustrate the knowledge and skills demonstrated by students performing at different scale scores on the 2007 assessment. Items that have been released to the public are underlined and linked to the [NAEP Questions Tool](#) where the item, scoring guide, key, student responses, and performance data can be viewed. (Items that have not been hyperlinked have not been released and are still in use.) The item map also includes

- A symbol next to each item descriptor that indicates the item's content classification (see legend at bottom of item map).
- Item type (multiple choice [MC] or constructed response [CR]).
- A notation after each constructed-response item descriptor that identifies the score level of the item (e.g., "Correct," "Partially Correct," "Incorrect").
- Links to achievement-level descriptions (*Advanced*, *Proficient*, and *Basic*).

To see student group performance by jurisdiction, select "Compare Student Groups."

Read [more about item mapping](#).

View All Items
Close All Items
Compare Student Groups

2007 Grade 4 NAEP Mathematics Scale

500  
↓

340  
▼ 330 Label sections in a spinner to satisfy a given condition—Extended (CR)

330  
320  
● 318 Add 3 fractions with like denominators (MC)

Select new item map.

Mathematics

2007

Grade 4

Reset Submit

## How do I use it?

Simply go to the website, and in the search box on the right, select the subject, year, and grade you'd like to view. Click **Submit**, and the Item Map you requested will be displayed on the screen.

The Item Map also provides links to released questions. Clicking on a link will take you directly to the question in the NAEP Questions Tool, where you can also view related information such as sample student responses and performance data. For example, in reading, you can view the questions as well as the passage students must read to answer each question.

For more information on item mapping, click on **more about item mapping**.

## Comparing Student Groups

The NAEP Item Maps have a special feature called **Compare Student Groups**. Using this feature, you can view performance information by different student groups, such as gender or race/ethnicity. You can also view individual, state-level results in mathematics, reading, science, and writing. You can review the results of any one of 11 urban districts participating in the NAEP Trial Urban District Assessment (TUDA) for those same subjects. State and TUDA results are only available for grades 4 and 8.

### Select Criteria

After selecting one option from each of the categories below, select "View Table" or "View Graphic" to see results. [SVG](#) is required to see graphics.

Subject: **Mathematics**    Grade: **4**    Year: **2007**

**1 Jurisdiction:**

- National
- State/Jurisdiction
- Urban District
- Region

**2 Variable:**

- Major Reporting Groups
  - All Students (*Overall Results*)
  - Gender
  - Natl School Lunch Prog eligibility (3 categories)
  - Parental education level (from 2 questions)
  - Parental education level (from 2 questions)(2005)
  - Public or nonpublic school (5 categories)
  - Public or nonpublic school (7 categories) (2002+)
  - Public or private school (2 categories)
  - Race/ethnicity used in NAEP reports after 2001
  - Region of the country (2003 and later)
  - School identified as charter (National Public)
  - School location (2005+)
  - School location (9 categories) (2005+)
  - School location, urban-centric (12 categories)
  - School location, urban-centric (4 categories)
  - Student classified as having a disability
  - Student is English Language Learner (2 categories)
  - Student is English Language Learner (3 categories)

View Table
View Graphic

This feature also allows you to view the scores (for a state, the nation, or one of the TUDA districts) corresponding to the 10th, 25th, 50th, 75th, and 90th percentiles. You can view these data in a table or as a graphical boxplot.

The table presents only the percentiles and the scores corresponding to those percentiles. This information will appear below the Item Map.

220

218 Find a sum based on place value (MC)

217 Identify congruent triangles (MC)

214 **Basic**

213 Determine what fraction of a figure is shaded (calculator available)—Correct (CR)

211 Complete a bar graph—Correct (CR)

210

205 Use reason to identify figure based on description (MC)

202 Identify appropriate unit for measuring length (calculator available) (MC)

202 Identify place value representation of a number (MC)

200 Identify color with highest chance of being chosen—Partial (CR)

200

191 Find unknown in whole number sentence (MC)

190

↓

0

**Content Classifications:**

Number Properties and Operations

Measurement

Geometry

Data Analysis & Probability

Algebra

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2007 Mathematics Assessment.

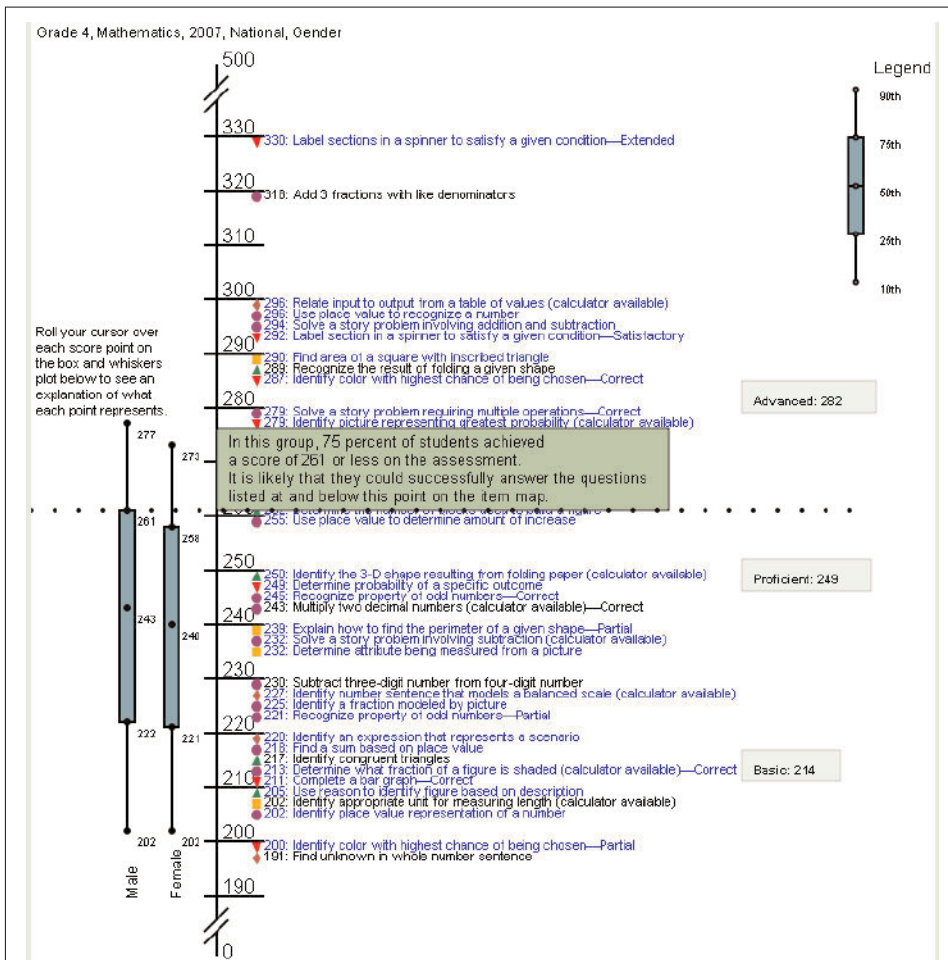
Percentiles for mathematics, grade 4, Gender [GENDER]: By jurisdiction, 2007

Gender	Year	Jurisdictions	10th Percentile	25th Percentile	50th Percentile	75th Percentile	90th Percentile
Male	2007	National	202	222	243	261	277
Female	2007	National	202	221	240	258	273

NOTE: The NAEP Mathematics scale ranges from 0 to 500. Observed differences are not necessarily statistically significant.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2007 Mathematics Assessment.

The graphical version shows the questions that reflect the knowledge and skills likely to be demonstrated by most students performing in the 25th to 75th percentile range when you mouse over the “box” area of the accompanying boxplot chart. Moving your cursor over each percentile point on the chart offers information on the students performing at or below that level. You may need to download the SVG viewer to view this information. (Your browser will direct you if necessary.)



**Content Classifications:**

- Number Properties and Operations
- Measurement
- ▲ Geometry
- ▼ Data Analysis & Probability
- ◆ Algebra

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2007 Mathematics Assessment.

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Try another feature: click the achievement levels (*Advanced*, *Proficient*, or *Basic*) that are on the right side of your graph. You will see details of each level as well as the cut score.

For additional support with the NAEP Data Explorer, click “**Get help.**” If you have questions or comments, submit them by clicking **CONTACT US.**

The National Assessment of Educational Progress (NAEP) is the only nationally representative and continuing assessment of what America’s students know and can do in various subject areas. Assessments are conducted periodically in mathematics, reading, science, writing, the arts, civics, economics, geography, and U.S. history. For the most recent results of assessments, visit The Nation’s Report Card website (<http://nationsreportcard.gov>). To see NAEP data, information about the NAEP program, and a schedule of future and past assessments and studies, explore this website (<http://nces.ed.gov/nationsreportcard>).