

# Grade Level Pennsylvania State Academic Standards

## 2011-2012

4th grade

On July 1, 2010, the State Board of Education adopted the Common Core State Standards in Mathematics and Reading, which will replace the Mathematics and Reading standards adopted in 1999. The regulations providing for these new academic content standards took effect upon their publication in the October 16, 2010 edition of the *Pennsylvania Bulletin*. The transition to Common Core will begin during the 2010-11 school year, with full implementation required by July 1, 2013.



# Math Grade 4 Assessment Anchors and Eligible Content



Pennsylvania Department of Education

[www.pde.state.pa.us](http://www.pde.state.pa.us)

Updated August 2010

## ASSESSMENT ANCHOR

**M4.A.1 Demonstrate an understanding of numbers, ways of representing numbers, relationships among numbers and number systems.**

## ELIGIBLE CONTENT

**M4.A.1.1** Use models and/or words to represent quantities as decimals, fractions or mixed numbers.

**M4.A.1.1.1** Write the fraction or decimal, including mixed numbers, which corresponds to a drawing or set – no simplification necessary.

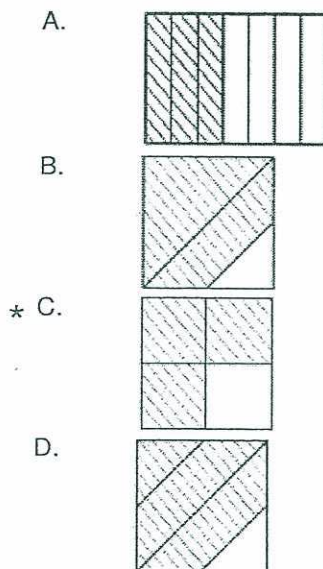
**M4.A.1.1.2** Create a drawing or set that represents a given fraction or decimal, including mixed numbers (through the tenths).

**M4.A.1.1.3** Match the standard number form to the word form of decimal numbers (through the tenths place).

**M4.A.1.1.4** Write whole numbers in expanded, standard and/or word form through 6 digits (example of standard to expanded form:  $43,076 = 40,000 + 3000 + 70 + 6$ ).

## EXAMPLE ITEMS

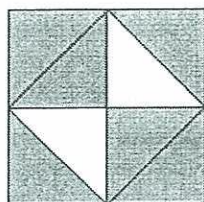
- Which shows  $\frac{3}{4}$  of the picture shaded?



(NAEP)

(NAEP)

- What fraction of this large square is shaded?



- A.  $\frac{4}{8}$   
B.  $\frac{5}{8}$   
\* C.  $\frac{6}{8}$   
D.  $\frac{7}{8}$

(New York State Department of Education)

**Reference:**

- 2.1.4.A Apply number **patterns** and relationships to count and compare values of whole numbers and simple fractions, and decimals.
- 2.1.4.B Represent **equivalent forms** of the same whole number, the same fraction, or the same decimal through the use of concrete objects, drawings, word names, and symbols.
- 2.1.4.C Use drawings, diagrams, or **models** to show the concept of a fraction as a part of a set and as division of a whole number by a whole number.
- 2.1.4.D Apply place value concepts and base-ten numeration to order and compare larger whole numbers.
- 2.1.4.E Apply **factors** and **multiples** to represent larger numbers in various ways.

**M4.A Numbers and Operations****Reporting Category****ASSESSMENT ANCHOR**

**M4.A.1 Demonstrate an understanding of numbers, ways of representing numbers, relationships among numbers and number systems.**

**ELIGIBLE CONTENT**

**M4.A.1.2** Compare quantities and magnitudes of numbers.

**M4.A.1.2.1** Locate/identify fractions or decimals on a number line (decimals and fractions through the tenths – do not mix fractions and decimals).

**M4.A.1.2.2** Compare and/or order whole numbers through 6 digits and amounts of money to \$100 (limit sets for ordering, to no more than 4 numbers).

**EXAMPLE ITEMS****Reference:**

- 2.1.4.A** Apply number **patterns** and relationships to count and compare values of whole numbers and simple fractions, and decimals.
- 2.1.4.D** Apply place value concepts and base-ten numeration to order and compare larger whole numbers.
- 2.1.4.B** Represent **equivalent forms** of the same whole number, the same fraction, or the same decimal through the use of concrete objects, drawings, word names, and symbols.
- 2.1.4.C** Use drawings, diagrams, or **models** to show the concept of a fraction as a part of a set and as division of a whole number by a whole number.
- 2.1.4.E** Apply **factors** and **multiples** to represent larger numbers in various ways.