



Here is a sample assessment item related to the CCSSM.

10



Drag numbers into each section of the area model to complete it. The first one is done for you.

Then drag the product to complete the equation.

	20	6	
30	600		
2			

$26 \times 32 = \square$

8 12 40 50 180 712 802 832

For more information related to standardized test items visit:

<http://www.smarterbalanced.org/>



Want to learn more about the CCSS?

Visit the Common Core State Standards website at

www.corestandards.org

There you can find:

- *The complete listing of the English Language Arts & Mathematics standards for each grade level.
- *Which 45 of the 50 states have adopted the CCSS
- *Resources



*A Parent
Guide to
Understanding
Common Core
State
Standards
Report Card*

**Grade
4**



Mathematics



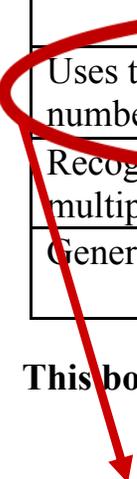
How do I use this booklet to help me understand my child's report card?

You may have noticed that our report card looks very different this year. The new elementary report card is a standards based report card, which means the grading categories are directly related to the state standards. This booklet contains the new standards adopted by the state. In each major concept area you will find the bold category headings which were selected to represent or generate grading categories for the report card. Here is an example of what you will see on the report card and how to find those standards in this document.

The Report Card:

Operations & Algebraic Thinking	T1	T2	T3	T4
Uses the 4 operations with whole numbers to solve problems				
Recognizes & finds factors and multiples				
Generates and analyzes patterns				

This booklet:



Operations & Algebraic Thinking

Use the four operations with whole numbers to solve problems.

* Interpret a multiplication equation as a comparison, e.g., interpret ...

For even more information and to view a more in depth parent guide with sample questions, please visit:

www.holmen.k12.wi.us

Select the District tab-Instructional Services-Report Cards



How is my child being assessed in these standards?

During the 2012-2013 school year, classroom teachers from across the district met monthly to identify what students should know, and be able to do, based on the Common Core State Standards for Mathematics (CCSSM). The district then selected Math Expressions to anchor the math program in grades K-5. The program provides a progression of teaching and learning that aligns with the CCSSM. Each unit contains assessments that measure student progress in relation to specific standards. Students will take assessments at the end of each unit, and teachers will review student data to ensure that students are meeting the CCSSM. Students will also complete a state assessment each year to determine how well they know the mathematics in the CCSSM at their grade level.

If you have more questions on the Common Core, please contact your child's teacher or the Instructional Services Department.

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Mathematical Practice Standards

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.



When did Wisconsin adopt these standards?

In June, 2010, Wisconsin adopted the internationally benchmarked Common Core State Standards for Mathematics & English Language Arts. Wisconsin also adopted Standards for Literacy in All Subjects.

These standards provide the framework for a new assessment system beginning in 2014-15.



Operations & Algebraic Thinking

Use the four operations with whole numbers to solve problems.

- * Interpret a multiplication equation as a comparison, e.g., interpret $35 = 5 \times 7$ as a statement that 35 is 5 times as many as 7 and 7 times as many as 5. Represent verbal statements of multiplicative comparisons as multiplication equations.
- * Multiply or divide to solve word problems involving multiplicative comparison, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem, distinguishing multiplicative comparison from additive comparison.
- * Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.

Gain familiarity with factors and multiples.

- * *Find all factor pairs for a whole number in the range 1–100. Recognize that a whole number is a multiple of each of its factors. Determine whether a given whole number in the range 1–100 is a multiple of a given one-digit number. Determine whether a given whole number in the range 1–100 is prime or composite.*

Generate and analyze patterns.

- * Generate a number or shape pattern that follows a given rule. Identify apparent features of the pattern that were not explicit in the rule itself. For example, given the rule “Add 3” and the starting number 1, generate terms in the resulting sequence and observe that the terms appear to alternate between odd and even numbers. Explain informally why the numbers will continue to alternate in this way.



Measurement & Data— Continued

Geometric measurement: understand concepts of angle and measure angles.

- * Recognize angles as geometric shapes that are formed wherever two rays share a common endpoint, and understand concepts of angle measurement:
 - a. An angle is measured with reference to a circle with its center at the common endpoint of the rays, by considering the fraction of the circular arc between the points where the two rays intersect the circle. An angle that turns through $1/360$ of a circle is called a “one-degree angle,” and can be used to measure angles.
 - b. An angle that turns through n one-degree angles is said to have an angle measure of n degrees.
- * Measure angles in whole-number degrees using a protractor. Sketch angles of specified measure.
- * Recognize angle measure as additive. When an angle is decomposed into non-overlapping parts, the angle measure of the whole is the sum of the angle measures of the parts. Solve addition and subtraction problems to find unknown angles on a diagram in real world and mathematical problems, e.g., by using an equation with a symbol for the unknown angle measure.

Geometry

Draw and identify lines and angles, and classify shapes by properties of their lines and angles.

- * Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures .
- * Classify two-dimensional figures based on the presence or absence of parallel or perpendicular lines, or the presence or absence of angles of a specified size. Recognize right triangles as a category, and identify right triangles.
- * Recognize a line of symmetry for a two-dimensional figure as a line across the figure such that the figure can be folded along the line into matching parts. Identify line-symmetric figures and draw lines of symmetry.



Measurement & Data

Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.

- * Know relative sizes of measurement units within one system of units including km, m, cm; kg, g; lb, oz.; l, ml; hr, min, sec. Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a two column table. For example, know that 1 ft is 12 times as long as 1 in. Express the length of a 4 ft snake as 48 in. Generate a conversion table for feet and inches listing the number pairs (1, 12), (2, 24), (3, 36).
- * Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals, and problems that require expressing measurements given in a larger unit in terms of a smaller unit. Represent measurement quantities using diagrams such as number line diagrams that feature a measurement scale.
- * Apply the area and perimeter formulas for rectangles in real world and mathematical problems. For example, find the width of a rectangular room given the area of the flooring and the length, by viewing the area formula as a multiplication equation with an unknown factor.

Represent and interpret data.

- * Make a line plot to display a data set of measurements in fractions of a unit ($\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$). Solve problems involving addition and subtraction of fractions by using information presented in line plots. For example, from a line plot find and interpret the difference in length between the longest and shortest specimens in an insect collection..



Number and Operations in Base Ten

Generalize place value understanding for multi-digit whole numbers.

- * Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right. For example, recognize that $700 \div 70 = 10$ by applying concepts of place value and division .
- * Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. Compare two multi-digit numbers based on meanings of the digits in each place, using $>$, $=$, and $<$ symbols to record the results of Comparisons.
- * Use place value understanding to round multi-digit whole numbers to any place.

Use place value understanding and properties of operations to perform multi-digit arithmetic.

- * Fluently add and subtract multi-digit whole numbers using the standard algorithm.
 - * Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models .
 - * Find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.
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Number and Operations - Fractions

Extend understanding of fraction equivalence and ordering.

- * Explain why a fraction a/b is equivalent to a fraction $(n \times a)/(n \times b)$ by using visual fraction models, with attention to how the number and size of the parts differ even though the two fractions themselves are the same size. Use this principle to recognize and generate equivalent fractions.
- * Compare two fractions with different numerators and different denominators, e.g., by creating common denominators or numerators, or by comparing to a benchmark fraction such as $1/2$. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with symbols $>$, $=$, or $<$, and justify the conclusions, e.g., by using a visual fraction model.

Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers.

- * Understand a fraction a/b with $a > 1$ as a sum of fractions $1/b$.
 - Understand addition and subtraction of fractions as joining and separating parts referring to the same whole.
 - Decompose a fraction into a sum of fractions with the same denominator in more than one way, recording each decomposition by an equation. Justify decompositions, e.g., by using a visual fraction model. Examples: $3/8 = 1/8 + 1/8 + 1/8$; $3/8 = 1/8 + 2/8$; $2 \frac{1}{8} = 1 + 1 + 1/8 = 8/8 + 8/8 + 1/8$.
 - Add and subtract mixed numbers with like denominators, e.g., by replacing each mixed number with an equivalent fraction, and/or by using properties of operations and the relationship between addition and subtraction.
 - Solve word problems involving addition and subtraction of fractions referring to the same whole and having like denominators, e.g., by using visual fraction models and equations to represent the problem.
- * Apply and extend previous understandings of multiplication to multiply a fraction by a whole number.
 - Understand a fraction a/b as a multiple of $1/b$.

For example,

use a visual fraction model to represent $5/4$ as the product $5 \times$



Number and Operations - Fractions (Continued)

- Understand a multiple of a/b as a multiple of $1/b$, and use this understanding to multiply a fraction by a whole number. For example, use a visual fraction model to express $3 \times (2/5)$ as $6 \times (1/5)$, recognizing this product as $6/5$.
(In general, $n \times (a/b) = (n \times a)/b$.)
- Solve word problems involving multiplication of a fraction by a whole number, e.g., by using visual fraction models and equations to represent the problem. For example, if each person at a party will eat $3/8$ of a pound of roast beef, and there will be 5 people at the party, how many pounds of roast beef will be needed? Between what two whole numbers does your answer lie?

Understand decimal notation for fractions, and compare decimal fractions.

- * Express a fraction with denominator 10 as an equivalent fraction with denominator 100, and use this technique to add two fractions with respective denominators 10 and 100. For example, express $3/10$ as $30/100$, and add $3/10 + 4/100 = 34/100$.
- * Use decimal notation for fractions with denominators 10 or 100. For example, rewrite 0.62 as $62/100$; describe a length as 0.62 meters; locate 0.62 on a number line diagram.
- * Compare two decimals to hundredths by reasoning about their size. Recognize that comparisons are valid only when the two decimals refer to the same whole. Record the results of comparisons with the symbols $>$, $=$, or $<$, and justify the conclusions, e.g., by using a visual model.

