DesCartes: A Continuum of Learning®

Mathematics

Goal: Number and Operations in Base Ten

RIT Score Range: < 161
Statements Last Updated: Aug 7, 2012

Skills and Concepts to Develop (50% Probability*) < 161	Skills and Concepts to Introduce (27% Probability*) 161 - 170
Understand Place Value, Counting, & Cardinality	Understand Place Value, Counting, & Cardinality
• Identifies whole numbers under 100 using base-10 blocks • Identifies the numerical and written name for whole numbers 11 to 20 (e.g., 15 is fifteen, and vice versa)	• Writes whole numbers in standard and expanded form through the tens • Identifies whole numbers under 100 using base-10 blocks • Identifies the numerical and written name for whole numbers 11 to 20 (e.g., 15 is fifteen, and vice versa) • Counts 1 to 10 objects • Identifies missing numbers in a series through 100 • Recognizes and generates equivalent forms for the same number using physical models for whole numbers 11 to 20 • Orders whole numbers less than 10
Operations with Multi-digit Whole Numbers	Operations with Multi-digit Whole Numbers
• Adds 1-digit to multiple-digit number with no regrouping • Adds 1-digit to multiple-digit number with regrouping • Uses models to calculate whole number sums through 99 • Adds two 1-digit numbers with sums to 10 in horizontal format	• Uses a number line to construct addition facts with sums through 20 (whole numbers) • Uses models to calculate whole number sums through 99 • Adds two 1-digit numbers with sums to 10 in horizontal format • Adds two 1-digit numbers with sums between 10 and 19 in horizontal format • Adds two 1-digit numbers with sums between 10 and 19 in vertical format • Adds multiple 1-digit numbers • Uses strategies for addition facts (e.g., compatible numbers, counting on, doubles, neighbors, making tens) • Adds 1-digit to multiple-digit number with no regrouping • Adds 1-digit to multiple-digit number with regrouping • Adds 2-digit numbers with no regrouping • Subtracts two 1-digit numbers horizontally • Subtracts a 1-digit number from a 2-digit number that is less than 20 (whole numbers only) • Subtracts a 2-digit number from a 2-digit number, with no regrouping • Instantly recalls basic multiplication facts where one factor is 0-5 and the other factor is 0-12 • Solves basic-facts open sentences - addition and subtraction
Operations with Decimals	Operations with Decimals
New Vocabulary: None	*New Vocabulary:* None
New Signs and Symbols: None	*New Signs and Symbols:* + addition, = is equal to, × multiplication, variable

Explanatory Notes
* At the range mid-point, this is the probability students would correctly answer items measuring these concepts and skills. Both data from test items and review by NWEA curriculum specialists are used to place Learning Continuum statements into appropriate RIT ranges. Blank cells indicate data are limited or unavailable for this range or document version.

DesCartes: A Continuum of Learning®

Mathematics

Goal: Number and Operations in Base Ten

RIT Score Range: 161 - 170
Statements Last Updated: Aug 7, 2012

Skills and concepts to Enhance (73% Probability*) < 161	Skills and Concepts to Develop (50% Probability*) 161 - 170	Skills and Concepts to Introduce (27% Probability*) 171 - 180
Understand Place Value, Counting, & Cardinality	**Understand Place Value, Counting, & Cardinality**	**Understand Place Value, Counting, & Cardinality**
• Identifies whole numbers under 100 using base-10 blocks • Identifies the numerical and written name for whole numbers 11 to 20 (e.g., 15 is fifteen, and vice versa)	• Writes whole numbers in standard and expanded form through the tens • Identifies whole numbers under 100 using base-10 blocks • Identifies the numerical and written name for whole numbers 11 to 20 (e.g., 15 is fifteen, and vice versa) • Counts 1 to 10 objects • Identifies missing numbers in a series through 100 • Recognizes and generates equivalent forms for the same number using physical models for whole numbers 11 to 20 • Orders whole numbers less than 10	• Identifies whole numbers 100 - 999 using base-10 blocks • Identifies the numerical and written name for whole numbers 21 to 100 (e.g., 62 is sixty-two, and vice versa) • Identifies the numeral and written name for whole numbers 101 to 999 (e.g., 342 is three hundred forty-two, and vice versa) • Identifies missing numbers in a series through 100 • Counts backwards from a given number (given number greater than 10) • Recognizes and generates equivalent forms for the same number using physical models for whole numbers 11 to 20 • Compares sets of objects and identifies which is equal to, more than, or less than the other (1 to 10 objects) • Compares whole numbers through 999 • Orders sets of objects 0-10 • Counts objects that are grouped into tens and ones • Identifies the place value and value of each digit in whole numbers through the tens place
Operations with Multi-digit Whole Numbers	**Operations with Multi-digit Whole Numbers**	**Operations with Multi-digit Whole Numbers**
• Adds 1-digit to multiple-digit number with no regrouping • Adds 1-digit to multiple-digit number with regrouping • Uses models to calculate whole number sums through 99 • Adds two 1-digit numbers with sums to 10 in horizontal format	• Uses a number line to construct addition facts with sums through 20 (whole numbers) • Uses models to calculate whole number sums through 99 • Adds two 1-digit numbers with sums to 10 in horizontal format • Adds two 1-digit numbers with sums between 10 and 19 in horizontal format • Adds two 1-digit numbers with sums between 10 and 19 in vertical format • Adds multiple 1-digit numbers • Uses strategies for addition facts (e.g., compatible numbers, counting on, doubles, neighbors, making tens) • Adds 1-digit to multiple-digit number with no regrouping • Adds 1-digit to multiple-digit number with regrouping • Adds 2-digit numbers with no regrouping • Subtracts two 1-digit numbers horizontally • Subtracts a 1-digit number from a 2-digit number that is less than 20 (whole numbers only) • Subtracts a 2-digit number from a 2-digit number, with no regrouping • Instantly recalls basic multiplication facts where one factor is 0-5 and the other factor is 0-12 • Solves basic-facts open sentences - addition and subtraction	• Uses a number line to construct addition facts with sums through 20 (whole numbers) • Uses models to calculate whole number sums through 999 • Uses strategies for addition facts (e.g., compatible numbers, counting on, doubles, neighbors, making tens) • Adds two or three 2-digit number with regrouping • Adds 1- and/or 2-digit numbers with sums under 100 • Adds 3-digit numbers with no regrouping • Adds 3-digit numbers, with regrouping, with sums under 1000 • Subtracts a 1-digit number from a 2-digit number that is less than 20 (whole numbers only) • Subtracts a 2-digit number from a 2-digit number, with no regrouping • Subtracts 2- and/or 3-digit numbers with no regrouping • Instantly recalls basic multiplication facts where one factor is 0-5 and the other factor is 0-12 • Multiplies basic facts to 10 x 10 vertically • Solves basic-facts open sentences - addition and subtraction • Solves basic facts open sentences - multiplication and division
Operations with Decimals	**Operations with Decimals**	**Operations with Decimals**

Explanatory Notes
* At the range mid-point, this is the probability students would correctly answer items measuring these concepts and skills. Both data from test items and review by NWEA curriculum specialists are used to place Learning Continuum statements into appropriate RIT ranges. Blank cells indicate data are limited or unavailable for this range or document version.

DesCartes: A Continuum of Learning®

Mathematics

Goal: Number and Operations in Base Ten

RIT Score Range: 161 - 170
Statements Last Updated: Aug 7, 2012

Skills and concepts to Enhance (73% Probability*) < 161	Skills and Concepts to Develop (50% Probability*) 161 - 170	Skills and Concepts to Introduce (27% Probability*) 171 - 180
New Vocabulary: None	*New Vocabulary:* None	*New Vocabulary:* hundred, thousand
New Signs and Symbols: None	*New Signs and Symbols:* + addition, = is equal to, × multiplication, variable	*New Signs and Symbols:* None

Explanatory Notes
* At the range mid-point, this is the probability students would correctly answer items measuring these concepts and skills. Both data from test items and review by NWEA curriculum specialists are used to place Learning Continuum statements into appropriate RIT ranges. Blank cells indicate data are limited or unavailable for this range or document version.

DesCartes: A Continuum of Learning®

Mathematics

Goal: Number and Operations in Base Ten

RIT Score Range: 171 - 180
Statements Last Updated: Aug 7, 2012

Skills and concepts to Enhance (73% Probability*) 161 - 170	Skills and Concepts to Develop (50% Probability*) 171 - 180	Skills and Concepts to Introduce (27% Probability*) 181 - 190
Understand Place Value, Counting, & Cardinality	**Understand Place Value, Counting, & Cardinality**	**Understand Place Value, Counting, & Cardinality**
• Writes whole numbers in standard and expanded form through the tens • Identifies whole numbers under 100 using base-10 blocks • Identifies the numerical and written name for whole numbers 11 to 20 (e.g., 15 is fifteen, and vice versa) • Counts 1 to 10 objects • Identifies missing numbers in a series through 100 • Recognizes and generates equivalent forms for the same number using physical models for whole numbers 11 to 20 • Orders whole numbers less than 10	• Identifies whole numbers 100 - 999 using base-10 blocks • Identifies the numerical and written name for whole numbers 21 to 100 (e.g., 62 is sixty-two, and vice versa) • Identifies the numeral and written name for whole numbers 101 to 999 (e.g., 342 is three hundred forty-two, and vice versa) • Identifies missing numbers in a series through 100 • Counts backwards from a given number (given number greater than 10) • Recognizes and generates equivalent forms for the same number using physical models for whole numbers 11 to 20 • Compares sets of objects and identifies which is equal to, more than, or less than the other (1 to 10 objects) • Compares whole numbers through 999 • Orders sets of objects 0-10 • Counts objects that are grouped into tens and ones • Identifies the place value and value of each digit in whole numbers through the tens place	• Rounds 2- and 3- digit whole numbers to the nearest ten • Identifies the numeral and written name for whole numbers 101 to 999 (e.g., 342 is three hundred forty-two, and vice versa) • Identifies the numeral and written name for whole numbers to 1000 to 9999 (e.g., 3456 is three thousand, four hundred fifty-six, and vice versa) • Identifies the numeral and written name for whole numbers 10,000 to 100,000 • Compares whole numbers through 999 • Rounds 3-digit whole numbers to the nearest hundred • Counts objects that are grouped into tens and ones • Identifies whole numbers under 100 given place value terms (e.g., 3 tens and 4 ones = 34) • Identifies the place value and value of each digit in whole numbers through the tens place • Identifies the place value and value of each digit in whole numbers through the hundreds place • Identifies the place value and value of each digit in whole numbers through the thousands • Identifies the place value and value of each digit in whole numbers through the hundred thousands • Compares and orders decimals to the hundredths place (same number of digits after decimal)
Operations with Multi-digit Whole Numbers	**Operations with Multi-digit Whole Numbers**	**Operations with Multi-digit Whole Numbers**
• Uses a number line to construct addition facts with sums through 20 (whole numbers) • Uses models to calculate whole number sums through 99 • Adds two 1-digit numbers with sums to 10 in horizontal format • Adds two 1-digit numbers with sums between 10 and 19 in horizontal format • Adds two 1-digit numbers with sums between 10 and 19 in vertical format • Adds multiple 1-digit numbers • Uses strategies for addition facts (e.g., compatible numbers, counting on, doubles, neighbors, making tens) • Adds 1-digit to multiple-digit number with no regrouping • Adds 1-digit to multiple-digit number with regrouping • Adds 2-digit numbers with no regrouping • Subtracts two 1-digit numbers horizontally • Subtracts a 1-digit number from a 2-digit number that is less than 20 (whole numbers only)	• Uses a number line to construct addition facts with sums through 20 (whole numbers) • Uses models to calculate whole number sums through 999 • Uses strategies for addition facts (e.g., compatible numbers, counting on, doubles, neighbors, making tens) • Adds two or three 2-digit number with regrouping • Adds 1- and/or 2-digit numbers with sums under 100 • Adds 3-digit numbers with no regrouping • Adds 3-digit numbers, with regrouping, with sums under 1000 • Subtracts a 1-digit number from a 2-digit number that is less than 20 (whole numbers only) • Subtracts a 2-digit number from a 2-digit number, with no regrouping • Subtracts 2- and/or 3-digit numbers with no regrouping • Instantly recalls basic multiplication facts where one factor is 0-5 and the other factor is 0-12 • Multiplies basic facts to 10 x 10 vertically • Solves basic-facts open sentences - addition and subtraction	• Adds two or three 2-digit number with regrouping • Adds 3-digit numbers, with regrouping, with sums under 1000 • Performs mental computation with 2, 3, or 4 addends • Adds two 3- and/or 4-digit numbers, with regrouping, with sums over 1000 • Adds multiple-digit numbers, with regrouping, with sums over 1000 • Uses models to calculate differences through 100 (whole numbers) • Subtracts a 2-digit number from a 2-digit number, with regrouping • Uses strategies for sums and differences with 2-digit numbers (e.g., decomposing, compatible, compensation, partial sums, counting on) • Subtracts 2- and/or 3-digit numbers with no regrouping • Subtracts 3- or 4-digit numbers with regrouping • Performs mental subtraction with numbers under 1000 • Subtracts multiple-digit numbers with no regrouping • Identifies the number that is "1 less than" a given number • Writes equivalent forms of whole numbers 11 to 20 using addition (e.g., 14 = 7 + 7)

Explanatory Notes

* At the range mid-point, this is the probability students would correctly answer items measuring these concepts and skills. Both data from test items and review by NWEA curriculum specialists are used to place Learning Continuum statements into appropriate RIT ranges. Blank cells indicate data are limited or unavailable for this range or document version.

DesCartes: A Continuum of Learning®

Mathematics

Goal: Number and Operations in Base Ten

RIT Score Range: 171 - 180
Statements Last Updated: Aug 7, 2012

Skills and concepts to Enhance (73% Probability*) 161 - 170	Skills and Concepts to Develop (50% Probability*) 171 - 180	Skills and Concepts to Introduce (27% Probability*) 181 - 190
Operations with Multi-digit Whole Numbers	Operations with Multi-digit Whole Numbers	Operations with Multi-digit Whole Numbers
• Subtracts a 2-digit number from a 2-digit number, with no regrouping • Instantly recalls basic multiplication facts where one factor is 0-5 and the other factor is 0-12 • Solves basic-facts open sentences - addition and subtraction	• Solves basic facts open sentences - multiplication and division	• Compares whole numbers through 9999 • Instantly recalls basic multiplication facts where one factor is 6-12 and the other factor is 0-12 • Multiplies basic facts to 10 x 10 vertically • Multiplies a 2-digit number by a 1-digit number with regrouping • Multiplies a 2-digit number by a 2-digit number with no regrouping • Instantly recalls division facts with dividend and divisors less than 10
Operations with Decimals	Operations with Decimals	Operations with Decimals
		• Adds decimals to the hundredths place (same number of digits)
New Vocabulary: None	*New Vocabulary:* hundred, thousand	*New Vocabulary:* closest, digit, hundreds, million, nearest, one, ten thousand
New Signs and Symbols: + addition, = is equal to, × multiplication, variable	*New Signs and Symbols:* None	*New Signs and Symbols:* { } set notation, $ dollar sign, long division symbol, - subtraction

Explanatory Notes
* At the range mid-point, this is the probability students would correctly answer items measuring these concepts and skills. Both data from test items and review by NWEA curriculum specialists are used to place Learning Continuum statements into appropriate RIT ranges. Blank cells indicate data are limited or unavailable for this range or document version.

DesCartes: A Continuum of Learning®

Mathematics

Goal: Number and Operations in Base Ten

RIT Score Range: 181 - 190
Statements Last Updated: Aug 7, 2012

Skills and concepts to Enhance (73% Probability*) 171 - 180	Skills and Concepts to Develop (50% Probability*) 181 - 190	Skills and Concepts to Introduce (27% Probability*) 191 - 200
Understand Place Value, Counting, & Cardinality	**Understand Place Value, Counting, & Cardinality**	**Understand Place Value, Counting, & Cardinality**
• Identifies whole numbers 100 - 999 using base-10 blocks • Identifies the numerical and written name for whole numbers 21 to 100 (e.g., 62 is sixty-two, and vice versa) • Identifies the numeral and written name for whole numbers 101 to 999 (e.g., 342 is three hundred forty-two, and vice versa) • Identifies missing numbers in a series through 100 • Counts backwards from a given number (given number greater than 10) • Recognizes and generates equivalent forms for the same number using physical models for whole numbers 11 to 20 • Compares sets of objects and identifies which is equal to, more than, or less than the other (1 to 10 objects) • Compares whole numbers through 999 • Orders sets of objects 0-10 • Counts objects that are grouped into tens and ones • Identifies the place value and value of each digit in whole numbers through the tens place	• Rounds 2- and 3- digit whole numbers to the nearest ten • Identifies the numeral and written name for whole numbers 101 to 999 (e.g., 342 is three hundred forty-two, and vice versa) • Identifies the numeral and written name for whole numbers to 1000 to 9999 (e.g., 3456 is three thousand, four hundred fifty-six, and vice versa) • Identifies the numeral and written name for whole numbers 10,000 to 100,000 • Compares whole numbers through 999 • Rounds 3-digit whole numbers to the nearest hundred • Counts objects that are grouped into tens and ones • Identifies whole numbers under 100 given place value terms (e.g., 3 tens and 4 ones = 34) • Identifies the place value and value of each digit in whole numbers through the tens place • Identifies the place value and value of each digit in whole numbers through the hundreds place • Identifies the place value and value of each digit in whole numbers through the thousands • Identifies the place value and value of each digit in whole numbers through the hundred thousands • Compares and orders decimals to the hundredths place (same number of digits after decimal)	• Writes whole numbers in standard and expanded form through the hundreds • Uses rounding to estimate answers to addition and subtraction problems (whole numbers only) • Identifies whole numbers over 999 using base-10 blocks • Identifies the numeral and written name for whole numbers with a zero between digits to the ten thousands place • Identifies the numeral and written name for whole numbers 10,000 to 100,000 • Identifies the numeral and written name for whole numbers over 100,000 • Compares whole numbers to 100, using the symbols for 'less than', 'equal to', or 'greater than' (<, =, >) • Compares whole numbers through the thousands using the symbols <, >, or = • Rounds 2- and 3- digit whole numbers to the nearest ten • Rounds 3-digit whole numbers to the nearest hundred • Identifies whole numbers under 100 given place value terms (e.g., 3 tens and 4 ones = 34) • Identifies the place value and value of each digit in whole numbers through the thousands • Identifies the place value and value of each digit in whole numbers through the hundred thousands • Writes whole numbers in standard and expanded form through the thousands
Operations with Multi-digit Whole Numbers	**Operations with Multi-digit Whole Numbers**	**Operations with Multi-digit Whole Numbers**
• Uses a number line to construct addition facts with sums through 20 (whole numbers) • Uses models to calculate whole number sums through 999 • Uses strategies for addition facts (e.g., compatible numbers, counting on, doubles, neighbors, making tens) • Adds two or three 2-digit number with regrouping • Adds 1- and/or 2-digit numbers with sums under 100 • Adds 3-digit numbers with no regrouping • Adds 3-digit numbers, with regrouping, with sums under 1000 • Subtracts a 1-digit number from a 2-digit number that is less than 20 (whole numbers only) • Subtracts a 2-digit number from a 2-digit number, with no regrouping • Subtracts 2- and/or 3-digit numbers with no regrouping • Instantly recalls basic multiplication facts where one factor is 0-5 and the other factor is 0-12	• Adds two or three 2-digit number with regrouping • Adds 3-digit numbers, with regrouping, with sums under 1000 • Performs mental computation with 2, 3, or 4 addends • Adds two 3- and/or 4-digit numbers, with regrouping, with sums over 1000 • Adds multiple-digit numbers, with regrouping, with sums over 1000 • Uses models to calculate differences through 100 (whole numbers) • Subtracts a 2-digit number from a 2-digit number, with regrouping • Uses strategies for sums and differences with 2-digit numbers (e.g., decomposing, compatible, compensation, partial sums, counting on) • Subtracts 2- and/or 3-digit numbers with no regrouping • Subtracts 3- or 4-digit numbers with regrouping • Performs mental subtraction with numbers under 1000 • Subtracts multiple-digit numbers with no regrouping	• Adds two 3- and/or 4-digit numbers, with regrouping, with sums over 1000 • Adds multiple-digit numbers, with regrouping, with sums over 1000 • Adds multiple-digit numbers with sums under 1000 • Subtracts 1-digit number from a 2-digit number with regrouping • Subtracts a 2-digit number from a 2-digit number, with regrouping • Uses strategies for sums and differences with 2-digit numbers (e.g., decomposing, compatible, compensation, partial sums, counting on) • Subtracts a 2-digit number from a 3-digit number with a single regrouping • Subtracts 3- or 4-digit numbers with regrouping • Performs mental subtraction with numbers under 1000 • Subtracts multiple-digit numbers with no regrouping • Instantly recalls basic multiplication facts where one factor is 6-12 and the other factor is 0-12

Explanatory Notes

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DesCartes: A Continuum of Learning®

Mathematics

Goal: Number and Operations in Base Ten

RIT Score Range: 181 - 190
Statements Last Updated: Aug 7, 2012

Skills and concepts to Enhance (73% Probability*) 171 - 180	Skills and Concepts to Develop (50% Probability*) 181 - 190	Skills and Concepts to Introduce (27% Probability*) 191 - 200
Operations with Multi-digit Whole Numbers	Operations with Multi-digit Whole Numbers	Operations with Multi-digit Whole Numbers
• Multiplies basic facts to 10 x 10 vertically • Solves basic-facts open sentences - addition and subtraction • Solves basic facts open sentences - multiplication and division	• Identifies the number that is "1 less than" a given number • Writes equivalent forms of whole numbers 11 to 20 using addition (e.g., 14 = 7 + 7) • Compares whole numbers through 9999 • Instantly recalls basic multiplication facts where one factor is 6-12 and the other factor is 0-12 • Multiplies basic facts to 10 x 10 vertically • Multiplies a 2-digit number by a 1-digit number with regrouping • Multiplies a 2-digit number by a 2-digit number with no regrouping • Instantly recalls division facts with dividend and divisors less than 10	• Multiplies a 2- or 3-digit number by a 1-digit number with no regrouping • Multiplies a 2-digit number by a 1-digit number with regrouping • Multiplies a 3- or 4-digit number by a 1-digit number • Multiplies a 2-digit number by a 2-digit number with no regrouping • Performs mental computation with multiplication • Instantly recalls division facts with dividend and divisors less than 10 • Instantly recalls division facts with dividend and divisors less than 13 • Writes equivalent forms of whole numbers 11 to 20 using addition (e.g., 14 = 7 + 7) • Divides a 2-digit number by a 1-digit number with no remainder
Operations with Decimals	Operations with Decimals	Operations with Decimals
	• Adds decimals to the hundredths place (same number of digits)	• Adds decimals to the hundredths place (same number of digits) • Adds decimals to the hundredths place in vertical format (not same number of digits) • Adds decimals to the thousandths place vertically with and without regrouping • Subtracts decimals to the hundredths place (same number of digits) with regrouping • Multiplies a decimal by whole number
New Vocabulary: hundred, thousand	*New Vocabulary:* closest, digit, hundreds, million, nearest, one, ten thousand	*New Vocabulary:* billion, hundred million, quintillion, standard numeral, trillion
New Signs and Symbols: None	*New Signs and Symbols:* { } set notation, $ dollar sign, long division symbol, - subtraction	*New Signs and Symbols:* °F degrees Fahrenheit, > greater than, < less than, R remainder

Explanatory Notes
* At the range mid-point, this is the probability students would correctly answer items measuring these concepts and skills. Both data from test items and review by NWEA curriculum specialists are used to place Learning Continuum statements into appropriate RIT ranges. Blank cells indicate data are limited or unavailable for this range or document version.

DesCartes: A Continuum of Learning®

Mathematics

Goal: Number and Operations in Base Ten

RIT Score Range: 191 - 200
Statements Last Updated: Aug 7, 2012

Skills and concepts to Enhance (73% Probability*) 181 - 190	Skills and Concepts to Develop (50% Probability*) 191 - 200	Skills and Concepts to Introduce (27% Probability*) 201 - 210
Understand Place Value, Counting, & Cardinality	**Understand Place Value, Counting, & Cardinality**	**Understand Place Value, Counting, & Cardinality**
• Rounds 2- and 3- digit whole numbers to the nearest ten • Identifies the numeral and written name for whole numbers 101 to 999 (e.g., 342 is three hundred forty-two, and vice versa) • Identifies the numeral and written name for whole numbers to 1000 to 9999 (e.g., 3456 is three thousand, four hundred fifty-six, and vice versa) • Identifies the numeral and written name for whole numbers 10,000 to 100,000 • Compares whole numbers through 999 • Rounds 3-digit whole numbers to the nearest hundred • Counts objects that are grouped into tens and ones • Identifies whole numbers under 100 given place value terms (e.g., 3 tens and 4 ones = 34) • Identifies the place value and value of each digit in whole numbers through the tens place • Identifies the place value and value of each digit in whole numbers through the hundreds place • Identifies the place value and value of each digit in whole numbers through the thousands • Identifies the place value and value of each digit in whole numbers through the hundred thousands • Compares and orders decimals to the hundredths place (same number of digits after decimal)	• Writes whole numbers in standard and expanded form through the hundreds • Uses rounding to estimate answers to addition and subtraction problems (whole numbers only) • Identifies whole numbers over 999 using base-10 blocks • Identifies the numeral and written name for whole numbers with a zero between digits to the ten thousands place • Identifies the numeral and written name for whole numbers 10,000 to 100,000 • Identifies the numeral and written name for whole numbers over 100,000 • Compares whole numbers to 100, using the symbols for 'less than', 'equal to', or 'greater than' (<, =, >) • Compares whole numbers through the thousands using the symbols <, >, or = • Rounds 2- and 3- digit whole numbers to the nearest ten • Rounds 3-digit whole numbers to the nearest hundred • Identifies whole numbers under 100 given place value terms (e.g., 3 tens and 4 ones = 34) • Identifies the place value and value of each digit in whole numbers through the thousands • Identifies the place value and value of each digit in whole numbers through the hundred thousands • Writes whole numbers in standard and expanded form through the thousands	• Uses rounding to estimate answers to addition and subtraction problems (whole numbers only) • Identifies whole numbers over 999 using base-10 blocks • Identifies the numeral and written name for whole numbers with a zero between digits to the ten thousands place • Identifies the numeral and written name for whole numbers over 100,000 • Compares whole numbers through the billions using the symbols <, >, or = • Orders whole numbers a million or greater using < or > symbols • Rounds 4-, 5-, and 6-digit whole numbers to the nearest ten • Rounds 4-, 5-, and 6-digit whole numbers to the nearest hundred • Rounds 4-, 5-, and 6-digit whole numbers to the nearest thousand • Rounds whole numbers to the nearest hundred thousand • Rounds wholes numbers to the nearest billion • Explains the rules for rounding • Writes equivalent forms of whole numbers using place value (e.g., 54 = 4 tens and 14 ones) • Identifies the place value and value of each digit in whole numbers through the billions • Writes whole numbers in standard and expanded form through the hundred thousands • Applies base ten place value concepts with whole numbers to solve problems • Writes whole numbers using place value terms and vice versa • Rounds decimals to the nearest whole number
Operations with Multi-digit Whole Numbers	**Operations with Multi-digit Whole Numbers**	**Operations with Multi-digit Whole Numbers**
• Adds two or three 2-digit number with regrouping • Adds 3-digit numbers, with regrouping, with sums under 1000 • Performs mental computation with 2, 3, or 4 addends • Adds two 3- and/or 4-digit numbers, with regrouping, with sums over 1000 • Adds multiple-digit numbers, with regrouping, with sums over 1000 • Uses models to calculate differences through 100 (whole numbers) • Subtracts a 2-digit number from a 2-digit number, with regrouping • Uses strategies for sums and differences with 2-digit numbers (e.g., decomposing, compatible, compensation, partial sums, counting on) • Subtracts 2- and/or 3-digit numbers with no regrouping • Subtracts 3- or 4-digit numbers with regrouping	• Adds two 3- and/or 4-digit numbers, with regrouping, with sums over 1000 • Adds multiple-digit numbers, with regrouping, with sums over 1000 • Adds multiple-digit numbers with sums under 1000 • Subtracts 1-digit number from a 2-digit number with regrouping • Subtracts a 2-digit number from a 2-digit number, with regrouping • Uses strategies for sums and differences with 2-digit numbers (e.g., decomposing, compatible, compensation, partial sums, counting on) • Subtracts a 2-digit number from a 3-digit number with a single regrouping • Subtracts 3- or 4-digit numbers with regrouping • Performs mental subtraction with numbers under 1000 • Subtracts multiple-digit numbers with no regrouping	• Adds multiple-digit numbers, with regrouping, with sums over 1000 • Adds multiple-digit numbers with sums under 1000 • Performs mental computation with more than 4 addends • Subtracts 3- or 4-digit numbers with regrouping • Subtracts numbers with 5 digits or more with regrouping • Instantly recalls basic multiplication and division facts in a table • Multiplies a 2-digit number by a 1-digit number with regrouping • Multiplies a 3- or 4-digit number by a 1-digit number • Multiplies multiple 1-digit numbers • Multiplies a 2-digit number by a 2-digit number with regrouping • Multiplies a 3-digit number by a 2-digit number with regrouping • Performs mental computation with multiplication

Explanatory Notes

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DesCartes: A Continuum of Learning®

Mathematics

Goal: Number and Operations in Base Ten

RIT Score Range: 191 - 200
Statements Last Updated: Aug 7, 2012

Skills and concepts to Enhance (73% Probability*) 181 - 190	Skills and Concepts to Develop (50% Probability*) 191 - 200	Skills and Concepts to Introduce (27% Probability*) 201 - 210
Operations with Multi-digit Whole Numbers	**Operations with Multi-digit Whole Numbers**	**Operations with Multi-digit Whole Numbers**
• Performs mental subtraction with numbers under 1000 • Subtracts multiple-digit numbers with no regrouping • Identifies the number that is "1 less than" a given number • Writes equivalent forms of whole numbers 11 to 20 using addition (e.g., 14 = 7 + 7) • Compares whole numbers through 9999 • Instantly recalls basic multiplication facts where one factor is 6-12 and the other factor is 0-12 • Multiplies basic facts to 10 x 10 vertically • Multiplies a 2-digit number by a 1-digit number with regrouping • Multiplies a 2-digit number by a 2-digit number with no regrouping • Instantly recalls division facts with dividend and divisors less than 10	• Instantly recalls basic multiplication facts where one factor is 6-12 and the other factor is 0-12 • Multiplies a 2- or 3-digit number by a 1-digit number with no regrouping • Multiplies a 2-digit number by a 1-digit number with regrouping • Multiplies a 3- or 4-digit number by a 1-digit number • Multiplies a 2-digit number by a 2-digit number with no regrouping • Performs mental computation with multiplication • Instantly recalls division facts with dividend and divisors less than 10 • Instantly recalls division facts with dividend and divisors less than 13 • Writes equivalent forms of whole numbers 11 to 20 using addition (e.g., 14 = 7 + 7) • Divides a 2-digit number by a 1-digit number with no remainder	• Multiplies a 2- or 3-digit number by multiples of 10 or 100 • Multiplies a 3-digit number by a 3-digit number • Instantly recalls division facts with dividend and divisors less than 13 • Divides a 2-digit number by a 1-digit number with no remainder • Divides a 2-digit number or a 3-digit number by a 1-digit number with a remainder • Performs mental computation with division • Divides a 3-digit number by a 1-digit number with no remainder • Divides a 4-digit number by a 1-digit number with no remainder • Divides a 3-digit number by a multiple of 10 • Divides a 4-digit number by a 2-digit number
Operations with Decimals	**Operations with Decimals**	**Operations with Decimals**
• Adds decimals to the hundredths place (same number of digits)	• Adds decimals to the hundredths place (same number of digits) • Adds decimals to the hundredths place in vertical format (not same number of digits) • Adds decimals to the thousandths place vertically with and without regrouping • Subtracts decimals to the hundredths place (same number of digits) with regrouping • Multiplies a decimal by whole number	• Adds decimals to the thousandths place horizontally with and without regrouping • Subtracts decimals to the hundredths place (same number of digits) with regrouping • Multiplies a decimal by whole number • Divides decimal by a whole number
New Vocabulary: closest, digit, hundreds, million, nearest, one, ten thousand	*New Vocabulary:* billion, hundred million, quintillion, standard numeral, trillion	*New Vocabulary:* expanded numeral
New Signs and Symbols: { } set notation, $ dollar sign, long division symbol, - subtraction	*New Signs and Symbols:* °F degrees Fahrenheit, > greater than, < less than, R remainder	*New Signs and Symbols:* None

Explanatory Notes
* At the range mid-point, this is the probability students would correctly answer items measuring these concepts and skills. Both data from test items and review by NWEA curriculum specialists are used to place Learning Continuum statements into appropriate RIT ranges. Blank cells indicate data are limited or unavailable for this range or document version.

DesCartes: A Continuum of Learning®

Mathematics

Goal: Number and Operations in Base Ten

RIT Score Range: 201 - 210
Statements Last Updated: Aug 7, 2012

Skills and concepts to Enhance (73% Probability*) 191 - 200	Skills and Concepts to Develop (50% Probability*) 201 - 210	Skills and Concepts to Introduce (27% Probability*) 211 - 220
Understand Place Value, Counting, & Cardinality	**Understand Place Value, Counting, & Cardinality**	**Understand Place Value, Counting, & Cardinality**
• Writes whole numbers in standard and expanded form through the hundreds • Uses rounding to estimate answers to addition and subtraction problems (whole numbers only) • Identifies whole numbers over 999 using base-10 blocks • Identifies the numeral and written name for whole numbers with a zero between digits to the ten thousands place • Identifies the numeral and written name for whole numbers 10,000 to 100,000 • Identifies the numeral and written name for whole numbers over 100,000 • Compares whole numbers to 100, using the symbols for 'less than', 'equal to', or 'greater than' (<, =, >) • Compares whole numbers through the thousands using the symbols <, >, or = • Rounds 2- and 3- digit whole numbers to the nearest ten • Rounds 3-digit whole numbers to the nearest hundred • Identifies whole numbers under 100 given place value terms (e.g., 3 tens and 4 ones = 34) • Identifies the place value and value of each digit in whole numbers through the thousands • Identifies the place value and value of each digit in whole numbers through the hundred thousands • Writes whole numbers in standard and expanded form through the thousands	• Uses rounding to estimate answers to addition and subtraction problems (whole numbers only) • Identifies whole numbers over 999 using base-10 blocks • Identifies the numeral and written name for whole numbers with a zero between digits to the ten thousands place • Identifies the numeral and written name for whole numbers over 100,000 • Compares whole numbers through the billions using the symbols <, >, or = • Orders whole numbers a million or greater using < or > symbols • Rounds 4-, 5-, and 6-digit whole numbers to the nearest ten • Rounds 4-, 5-, and 6-digit whole numbers to the nearest hundred • Rounds 4-, 5-, and 6-digit whole numbers to the nearest thousand • Rounds whole numbers to the nearest hundred thousand • Rounds wholes numbers to the nearest billion • Explains the rules for rounding • Writes equivalent forms of whole numbers using place value (e.g., 54 = 4 tens and 14 ones) • Identifies the place value and value of each digit in whole numbers through the billions • Writes whole numbers in standard and expanded form through the hundred thousands • Applies base ten place value concepts with whole numbers to solve problems • Writes whole numbers using place value terms and vice versa • Rounds decimals to the nearest whole number	• Predicts the relative size of the answer when computing with 10's, 100's, 1000's • Rounds 4-, 5-, and 6-digit whole numbers to the nearest hundred • Rounds 4-, 5-, and 6-digit whole numbers to the nearest thousand • Rounds 4-, 5-, and 6-digit whole numbers to the nearest ten thousand • Rounds wholes numbers to the nearest billion • Writes whole numbers in standard and expanded form through the hundred thousands • Represents a decimal to the hundredths place (e.g., three hundredths = 0.03) • Compares and orders decimals past the thousandths place • Rounds decimals to the nearest whole number • Rounds decimals to the nearest tenth • Applies base ten place value concepts to solve problems using decimals
Operations with Multi-digit Whole Numbers	**Operations with Multi-digit Whole Numbers**	**Operations with Multi-digit Whole Numbers**
• Adds two 3- and/or 4-digit numbers, with regrouping, with sums over 1000 • Adds multiple-digit numbers, with regrouping, with sums over 1000 • Adds multiple-digit numbers with sums under 1000 • Subtracts 1-digit number from a 2-digit number with regrouping • Subtracts a 2-digit number from a 2-digit number, with regrouping • Uses strategies for sums and differences with 2-digit numbers (e.g., decomposing, compatible, compensation, partial sums, counting on) • Subtracts a 2-digit number from a 3-digit number with a single regrouping • Subtracts 3- or 4-digit numbers with regrouping • Performs mental subtraction with numbers under 1000 • Subtracts multiple-digit numbers with no regrouping	• Adds multiple-digit numbers, with regrouping, with sums over 1000 • Adds multiple-digit numbers with sums under 1000 • Performs mental computation with more than 4 addends • Subtracts 3- or 4-digit numbers with regrouping • Subtracts numbers with 5 digits or more with regrouping • Instantly recalls basic multiplication and division facts in a table • Multiplies a 2-digit number by a 1-digit number with regrouping • Multiplies a 3- or 4-digit number by a 1-digit number • Multiplies multiple 1-digit numbers • Multiplies a 2-digit number by a 2-digit number with regrouping • Multiplies a 3-digit number by a 2-digit number with regrouping • Performs mental computation with multiplication	• Uses rounding to estimate answers to real-world problems involving numbers 1000 or greater using multiplication and division (whole numbers only) • Subtracts numbers with 5 digits or more with regrouping • Instantly recalls basic multiplication and division facts in a table • Multiplies a 2-digit number by a 2-digit number with regrouping • Multiplies a 3-digit number by a 2-digit number with regrouping • Performs mental computation with multiplication • Uses multiplication strategies to explain computation (e.g., doubles, 9-patterns, decomposing, partial products) • Multiplies a 3-digit number by a 3-digit number • Multiplies a 4- or more digit number by multiples of 100 or 1000 • Multiplies multiple-digit numbers

Explanatory Notes

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DesCartes: A Continuum of Learning®

Mathematics

Goal: Number and Operations in Base Ten

RIT Score Range: 201 - 210
Statements Last Updated: Aug 7, 2012

Skills and concepts to Enhance (73% Probability*) 191 - 200	Skills and Concepts to Develop (50% Probability*) 201 - 210	Skills and Concepts to Introduce (27% Probability*) 211 - 220
Operations with Multi-digit Whole Numbers	Operations with Multi-digit Whole Numbers	Operations with Multi-digit Whole Numbers
• Instantly recalls basic multiplication facts where one factor is 6-12 and the other factor is 0-12 • Multiplies a 2- or 3-digit number by a 1-digit number with no regrouping • Multiplies a 2-digit number by a 1-digit number with regrouping • Multiplies a 3- or 4-digit number by a 1-digit number • Multiplies a 2-digit number by a 2-digit number with no regrouping • Performs mental computation with multiplication • Instantly recalls division facts with dividend and divisors less than 10 • Instantly recalls division facts with dividend and divisors less than 13 • Writes equivalent forms of whole numbers 11 to 20 using addition (e.g., 14 = 7 + 7) • Divides a 2-digit number by a 1-digit number with no remainder	• Multiplies a 2- or 3-digit number by multiples of 10 or 100 • Multiplies a 3-digit number by a 3-digit number • Instantly recalls division facts with dividend and divisors less than 13 • Divides a 2-digit number by a 1-digit number with no remainder • Divides a 2-digit number or a 3-digit number by a 1-digit number with a remainder • Performs mental computation with division • Divides a 3-digit number by a 1-digit number with no remainder • Divides a 4-digit number by a 1-digit number with no remainder • Divides a 3-digit number by a multiple of 10 • Divides a 4-digit number by a 2-digit number	• Divides a 2-digit number or a 3-digit number by a 1-digit number with a remainder • Performs mental computation with division • Divides a 4-digit number by a 1-digit number with no remainder • Divides a 3-digit number by a 2-digit number • Divides a 4-digit number by a 2-digit number • Demonstrates an understanding of the inverse relationship between addition and subtraction • Demonstrates an understanding of the distributive property of multiplication by decomposing a term
Operations with Decimals	Operations with Decimals	Operations with Decimals
• Adds decimals to the hundredths place (same number of digits) • Adds decimals to the hundredths place in vertical format (not same number of digits) • Adds decimals to the thousandths place vertically with and without regrouping • Subtracts decimals to the hundredths place (same number of digits) with regrouping • Multiplies a decimal by whole number	• Adds decimals to the thousandths place horizontally with and without regrouping • Subtracts decimals to the hundredths place (same number of digits) with regrouping • Multiplies a decimal by whole number • Divides decimal by a whole number	• Adds decimals to the hundredths place in horizontal format (not same number of digits) • Adds decimals to the thousandths place horizontally with and without regrouping • Adds decimals through the hundred-thousandths place • Multiplies a decimal by a decimal, vertical form (factors to tenths or hundredths) • Multiplies a decimal by a decimal (factors to hundredths) • Divides decimal by a whole number
New Vocabulary: billion, hundred million, quintillion, standard numeral, trillion	*New Vocabulary:* expanded numeral	*New Vocabulary:* None
New Signs and Symbols: °F degrees Fahrenheit, > greater than, < less than, R remainder	*New Signs and Symbols:* None	*New Signs and Symbols:* None

Explanatory Notes
* At the range mid-point, this is the probability students would correctly answer items measuring these concepts and skills. Both data from test items and review by NWEA curriculum specialists are used to place Learning Continuum statements into appropriate RIT ranges. Blank cells indicate data are limited or unavailable for this range or document version.

DesCartes: A Continuum of Learning®

Mathematics

Goal: Number and Operations in Base Ten

RIT Score Range: 211 - 220
Statements Last Updated: Aug 7, 2012

Skills and concepts to Enhance (73% Probability*) 201 - 210	Skills and Concepts to Develop (50% Probability*) 211 - 220	Skills and Concepts to Introduce (27% Probability*) 221 - 230
Understand Place Value, Counting, & Cardinality	**Understand Place Value, Counting, & Cardinality**	**Understand Place Value, Counting, & Cardinality**
• Uses rounding to estimate answers to addition and subtraction problems (whole numbers only) • Identifies whole numbers over 999 using base-10 blocks • Identifies the numeral and written name for whole numbers with a zero between digits to the ten thousands place • Identifies the numeral and written name for whole numbers over 100,000 • Compares whole numbers through the billions using the symbols <, >, or = • Orders whole numbers a million or greater using < or > symbols • Rounds 4-, 5-, and 6-digit whole numbers to the nearest ten • Rounds 4-, 5-, and 6-digit whole numbers to the nearest hundred • Rounds 4-, 5-, and 6-digit whole numbers to the nearest thousand • Rounds whole numbers to the nearest hundred thousand • Rounds wholes numbers to the nearest billion • Explains the rules for rounding • Writes equivalent forms of whole numbers using place value (e.g., 54 = 4 tens and 14 ones) • Identifies the place value and value of each digit in whole numbers through the billions • Writes whole numbers in standard and expanded form through the hundred thousands • Applies base ten place value concepts with whole numbers to solve problems • Writes whole numbers using place value terms and vice versa • Rounds decimals to the nearest whole number	• Predicts the relative size of the answer when computing with 10's, 100's, 1000's • Rounds 4-, 5-, and 6-digit whole numbers to the nearest hundred • Rounds 4-, 5-, and 6-digit whole numbers to the nearest thousand • Rounds 4-, 5-, and 6-digit whole numbers to the nearest ten thousand • Rounds wholes numbers to the nearest billion • Writes whole numbers in standard and expanded form through the hundred thousands • Represents a decimal to the hundredths place (e.g., three hundredths = 0.03) • Compares and orders decimals past the thousandths place • Rounds decimals to the nearest whole number • Rounds decimals to the nearest tenth • Applies base ten place value concepts to solve problems using decimals	• Multiplies a decimal by 10, 100, 1000 • Divides a decimal by 10, 100, 1000 • Determines the relative magnitude of whole numbers • Rounds whole numbers to the nearest million • Writes whole numbers in standard and exponential form • Represents a decimal to thousandths place (e.g., three thousandths = 0.003) • Compares and orders decimals to the hundredths place (not same number of digits after decimal) • Compares and orders decimals to the thousandths place (not same number of digits after decimal) • Compares and orders decimals past the thousandths place • Rounds decimals to the nearest hundredth • Rounds decimals to nearest thousandth • Identifies the place value and value of each digit to the hundredths and thousandths • Applies base ten place value concepts to solve problems using decimals
Operations with Multi-digit Whole Numbers	**Operations with Multi-digit Whole Numbers**	**Operations with Multi-digit Whole Numbers**
• Adds multiple-digit numbers, with regrouping, with sums over 1000 • Adds multiple-digit numbers with sums under 1000 • Performs mental computation with more than 4 addends • Subtracts 3- or 4-digit numbers with regrouping • Subtracts numbers with 5 digits or more with regrouping • Instantly recalls basic multiplication and division facts in a table • Multiplies a 2-digit number by a 1-digit number with regrouping • Multiplies a 3- or 4-digit number by a 1-digit number • Multiplies multiple 1-digit numbers • Multiplies a 2-digit number by a 2-digit number with regrouping • Multiplies a 3-digit number by a 2-digit number with regrouping • Performs mental computation with multiplication	• Uses rounding to estimate answers to real-world problems involving numbers 1000 or greater using multiplication and division (whole numbers only) • Subtracts numbers with 5 digits or more with regrouping • Instantly recalls basic multiplication and division facts in a table • Multiplies a 2-digit number by a 2-digit number with regrouping • Multiplies a 3-digit number by a 2-digit number with regrouping • Performs mental computation with multiplication • Uses multiplication strategies to explain computation (e.g., doubles, 9-patterns, decomposing, partial products) • Multiplies a 3-digit number by a 3-digit number • Multiplies a 4- or more digit number by multiples of 100 or 1000 • Multiplies multiple-digit numbers	• Uses rounding to estimate answers to real-world problems involving numbers 1000 or greater using multiplication and division (whole numbers only) • Multiplies multiple-digit numbers • Divides a 4-digit number by a 2-digit number

Explanatory Notes

* At the range mid-point, this is the probability students would correctly answer items measuring these concepts and skills. Both data from test items and review by NWEA curriculum specialists are used to place Learning Continuum statements into appropriate RIT ranges. Blank cells indicate data are limited or unavailable for this range or document version.

DesCartes: A Continuum of Learning®

Mathematics

Goal: Number and Operations in Base Ten

RIT Score Range: 211 - 220
Statements Last Updated: Aug 7, 2012

Skills and concepts to Enhance (73% Probability*) 201 - 210	Skills and Concepts to Develop (50% Probability*) 211 - 220	Skills and Concepts to Introduce (27% Probability*) 221 - 230
Operations with Multi-digit Whole Numbers	Operations with Multi-digit Whole Numbers	Operations with Multi-digit Whole Numbers
• Multiplies a 2- or 3-digit number by multiples of 10 or 100 • Multiplies a 3-digit number by a 3-digit number • Instantly recalls division facts with dividend and divisors less than 13 • Divides a 2-digit number by a 1-digit number with no remainder • Divides a 2-digit number or a 3-digit number by a 1-digit number with a remainder • Performs mental computation with division • Divides a 3-digit number by a 1-digit number with no remainder • Divides a 4-digit number by a 1-digit number with no remainder • Divides a 3-digit number by a multiple of 10 • Divides a 4-digit number by a 2-digit number	• Divides a 2-digit number or a 3-digit number by a 1-digit number with a remainder • Performs mental computation with division • Divides a 4-digit number by a 1-digit number with no remainder • Divides a 3-digit number by a 2-digit number • Divides a 4-digit number by a 2-digit number • Demonstrates an understanding of the inverse relationship between addition and subtraction • Demonstrates an understanding of the distributive property of multiplication by decomposing a term	
Operations with Decimals	Operations with Decimals	Operations with Decimals
• Adds decimals to the thousandths place horizontally with and without regrouping • Subtracts decimals to the hundredths place (same number of digits) with regrouping • Multiplies a decimal by whole number • Divides decimal by a whole number	• Adds decimals to the hundredths place in horizontal format (not same number of digits) • Adds decimals to the thousandths place horizontally with and without regrouping • Adds decimals through the hundred-thousandths place • Multiplies a decimal by a decimal, vertical form (factors to tenths or hundredths) • Multiplies a decimal by a decimal (factors to hundredths) • Divides decimal by a whole number	• Adds decimals to the hundredths place in horizontal format (not same number of digits) • Adds decimals through the hundred-thousandths place • Subtracts decimals to the hundredths place (not same number of digits) • Subtracts a decimal from a whole number, horizontally • Multiplies a decimal by a decimal, vertical form (factors to tenths or hundredths) • Multiplies a decimal by a decimal (factors to hundredths) • Multiplies a decimal by a decimal (factors to thousandths) • Divides a decimal by a decimal
New Vocabulary: expanded numeral	*New Vocabulary:* None	*New Vocabulary:* ten million
New Signs and Symbols: None	*New Signs and Symbols:* None	*New Signs and Symbols:* None

Explanatory Notes
* At the range mid-point, this is the probability students would correctly answer items measuring these concepts and skills. Both data from test items and review by NWEA curriculum specialists are used to place Learning Continuum statements into appropriate RIT ranges. Blank cells indicate data are limited or unavailable for this range or document version.

DesCartes: A Continuum of Learning®

Mathematics

Goal: Number and Operations in Base Ten

RIT Score Range: 221 - 230
Statements Last Updated: Aug 7, 2012

Skills and concepts to Enhance (73% Probability*) 211 - 220	Skills and Concepts to Develop (50% Probability*) 221 - 230	Skills and Concepts to Introduce (27% Probability*) 231 - 240
Understand Place Value, Counting, & Cardinality	**Understand Place Value, Counting, & Cardinality**	**Understand Place Value, Counting, & Cardinality**
• Predicts the relative size of the answer when computing with 10's, 100's, 1000's • Rounds 4-, 5-, and 6-digit whole numbers to the nearest hundred • Rounds 4-, 5-, and 6-digit whole numbers to the nearest thousand • Rounds 4-, 5-, and 6-digit whole numbers to the nearest ten thousand • Rounds wholes numbers to the nearest billion • Writes whole numbers in standard and expanded form through the hundred thousands • Represents a decimal to the hundredths place (e.g., three hundredths = 0.03) • Compares and orders decimals past the thousandths place • Rounds decimals to the nearest whole number • Rounds decimals to the nearest tenth • Applies base ten place value concepts to solve problems using decimals	• Multiplies a decimal by 10, 100, 1000 • Divides a decimal by 10, 100, 1000 • Determines the relative magnitude of whole numbers • Rounds whole numbers to the nearest million • Writes whole numbers in standard and exponential form • Represents a decimal to thousandths place (e.g., three thousandths = 0.003) • Compares and orders decimals to the hundredths place (not same number of digits after decimal) • Compares and orders decimals to the thousandths place (not same number of digits after decimal) • Compares and orders decimals past the thousandths place • Rounds decimals to the nearest hundredth • Rounds decimals to nearest thousandth • Identifies the place value and value of each digit to the hundredths and thousandths • Applies base ten place value concepts to solve problems using decimals	• Divides numbers by powers of 10 • Multiplies a decimal by 10, 100, 1000 • Divides a decimal by 10, 100, 1000 • Determines the relative magnitude of whole numbers • Writes whole numbers in standard and exponential form • Rounds decimals to the nearest hundredth
Operations with Multi-digit Whole Numbers	**Operations with Multi-digit Whole Numbers**	**Operations with Multi-digit Whole Numbers**
• Uses rounding to estimate answers to real-world problems involving numbers 1000 or greater using multiplication and division (whole numbers only) • Subtracts numbers with 5 digits or more with regrouping • Instantly recalls basic multiplication and division facts in a table • Multiplies a 2-digit number by a 2-digit number with regrouping • Multiplies a 3-digit number by a 2-digit number with regrouping • Performs mental computation with multiplication • Uses multiplication strategies to explain computation (e.g., doubles, 9-patterns, decomposing, partial products) • Multiplies a 3-digit number by a 3-digit number • Multiplies a 4- or more digit number by multiples of 100 or 1000 • Multiplies multiple-digit numbers • Divides a 2-digit number or a 3-digit number by a 1-digit number with a remainder • Performs mental computation with division • Divides a 4-digit number by a 1-digit number with no remainder • Divides a 3-digit number by a 2-digit number • Divides a 4-digit number by a 2-digit number	• Uses rounding to estimate answers to real-world problems involving numbers 1000 or greater using multiplication and division (whole numbers only) • Multiplies multiple-digit numbers • Divides a 4-digit number by a 2-digit number	

Explanatory Notes
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DesCartes: A Continuum of Learning®

Mathematics

Goal: Number and Operations in Base Ten

RIT Score Range: 221 - 230
Statements Last Updated: Aug 7, 2012

Skills and concepts to Enhance (73% Probability*) 211 - 220	Skills and Concepts to Develop (50% Probability*) 221 - 230	Skills and Concepts to Introduce (27% Probability*) 231 - 240
Operations with Multi-digit Whole Numbers	Operations with Multi-digit Whole Numbers	Operations with Multi-digit Whole Numbers
• Demonstrates an understanding of the inverse relationship between addition and subtraction • Demonstrates an understanding of the distributive property of multiplication by decomposing a term		
Operations with Decimals	Operations with Decimals	Operations with Decimals
• Adds decimals to the hundredths place in horizontal format (not same number of digits) • Adds decimals to the thousandths place horizontally with and without regrouping • Adds decimals through the hundred-thousandths place • Multiplies a decimal by a decimal, vertical form (factors to tenths or hundredths) • Multiplies a decimal by a decimal (factors to hundredths) • Divides decimal by a whole number	• Adds decimals to the hundredths place in horizontal format (not same number of digits) • Adds decimals through the hundred-thousandths place • Subtracts decimals to the hundredths place (not same number of digits) • Subtracts a decimal from a whole number, horizontally • Multiplies a decimal by a decimal, vertical form (factors to tenths or hundredths) • Multiplies a decimal by a decimal (factors to hundredths) • Multiplies a decimal by a decimal (factors to thousandths) • Divides a decimal by a decimal	• Subtracts a decimal from a whole number, horizontally • Divides a whole number by a decimal • Divides a decimal by a decimal
New Vocabulary: None	*New Vocabulary:* ten million	*New Vocabulary:* None
New Signs and Symbols: None	*New Signs and Symbols:* None	*New Signs and Symbols:* ÷ division

Explanatory Notes
* At the range mid-point, this is the probability students would correctly answer items measuring these concepts and skills. Both data from test items and review by NWEA curriculum specialists are used to place Learning Continuum statements into appropriate RIT ranges. Blank cells indicate data are limited or unavailable for this range or document version.

DesCartes: A Continuum of Learning®

Mathematics

Goal: Number and Operations in Base Ten

RIT Score Range: 231 - 240
Statements Last Updated: Aug 7, 2012

Skills and concepts to Enhance (73% Probability*) 221 - 230	Skills and Concepts to Develop (50% Probability*) 231 - 240	Skills and Concepts to Introduce (27% Probability*) > 240
Understand Place Value, Counting, & Cardinality	Understand Place Value, Counting, & Cardinality	Understand Place Value, Counting, & Cardinality
• Multiplies a decimal by 10, 100, 1000 • Divides a decimal by 10, 100, 1000 • Determines the relative magnitude of whole numbers • Rounds whole numbers to the nearest million • Writes whole numbers in standard and exponential form • Represents a decimal to thousandths place (e.g., three thousandths = 0.003) • Compares and orders decimals to the hundredths place (not same number of digits after decimal) • Compares and orders decimals to the thousandths place (not same number of digits after decimal) • Compares and orders decimals past the thousandths place • Rounds decimals to the nearest hundredth • Rounds decimals to nearest thousandth • Identifies the place value and value of each digit to the hundredths and thousandths • Applies base ten place value concepts to solve problems using decimals	• Divides numbers by powers of 10 • Multiplies a decimal by 10, 100, 1000 • Divides a decimal by 10, 100, 1000 • Determines the relative magnitude of whole numbers • Writes whole numbers in standard and exponential form • Rounds decimals to the nearest hundredth	• Evaluates expressions using the order of operations, including exponents (using integers)
Operations with Multi-digit Whole Numbers	Operations with Multi-digit Whole Numbers	Operations with Multi-digit Whole Numbers
• Uses rounding to estimate answers to real-world problems involving numbers 1000 or greater using multiplication and division (whole numbers only) • Multiplies multiple-digit numbers • Divides a 4-digit number by a 2-digit number		
Operations with Decimals	Operations with Decimals	Operations with Decimals
• Adds decimals to the hundredths place in horizontal format (not same number of digits) • Adds decimals through the hundred-thousandths place • Subtracts decimals to the hundredths place (not same number of digits) • Subtracts a decimal from a whole number, horizontally • Multiplies a decimal by a decimal, vertical form (factors to tenths or hundredths) • Multiplies a decimal by a decimal (factors to hundredths) • Multiplies a decimal by a decimal (factors to thousandths) • Divides a decimal by a decimal	• Subtracts a decimal from a whole number, horizontally • Divides a whole number by a decimal • Divides a decimal by a decimal	
New Vocabulary: ten million	*New Vocabulary:* None	*New Vocabulary:* None
New Signs and Symbols: None	*New Signs and Symbols:* ÷ division	*New Signs and Symbols:* None

Explanatory Notes
* At the range mid-point, this is the probability students would correctly answer items measuring these concepts and skills. Both data from test items and review by NWEA curriculum specialists are used to place Learning Continuum statements into appropriate RIT ranges. Blank cells indicate data are limited or unavailable for this range or document version.

DesCartes: A Continuum of Learning®

Mathematics

Goal: Number and Operations in Base Ten

RIT Score Range: > 240
Statements Last Updated: Aug 7, 2012

Skills and concepts to Enhance (73% Probability*) 231 - 240	Skills and Concepts to Develop (50% Probability*) > 240
Understand Place Value, Counting, & Cardinality	Understand Place Value, Counting, & Cardinality
• Divides numbers by powers of 10 • Multiplies a decimal by 10, 100, 1000 • Divides a decimal by 10, 100, 1000 • Determines the relative magnitude of whole numbers • Writes whole numbers in standard and exponential form • Rounds decimals to the nearest hundredth	• Evaluates expressions using the order of operations, including exponents (using integers)
Operations with Multi-digit Whole Numbers	Operations with Multi-digit Whole Numbers
Operations with Decimals	Operations with Decimals
• Subtracts a decimal from a whole number, horizontally • Divides a whole number by a decimal • Divides a decimal by a decimal	
New Vocabulary: None	*New Vocabulary:* None
New Signs and Symbols: ÷ division	*New Signs and Symbols:* None

Explanatory Notes
* At the range mid-point, this is the probability students would correctly answer items measuring these concepts and skills. Both data from test items and review by NWEA curriculum specialists are used to place Learning Continuum statements into appropriate RIT ranges. Blank cells indicate data are limited or unavailable for this range or document version.