

DesCartes: A Continuum of Learning®

Goal: Measurement and Data

Mathematics

RIT Score Range:201 - 210Statements Last Updated:Mar 10, 2014

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
Geometric Measurement and Problem Solving	Geometric Measurement and Problem Solving	Geometric Measurement and Problem Solving
Identifies the value of a collection of coins to \$1.00 (without picture of coins)	Computes the value of multiple bills and coins (addition/subtraction only)	Computes the value of multiple bills and coins (addition/subtraction only)
Adds money with regrouping	Computes with dollars and cents up to and including \$5.00 and	Analyzes and computes 1 operation on real-world problems involving
 Identifies the value of a collection of coins and bills to \$10.00 by 	converts to decimals (multiplication/division)	money over \$5.00 (addition/subtraction only)
counting on (without picture of money)Finds equivalent combinations of coins with the same value	Computes addition and subtraction on multiple-step real-world problems involving money	Analyzes and computes 1 operation on real-world problems involving money over \$5.00 (multiplication/division)
Makes change to \$1.00 by counting on or subtracting	Computes money problems with multiple operations (addition/	• Computes with dollars and cents over \$5.00 and converts to decimals
 Solves real-world problems involving decimals (not money) using 	subtraction only)	(multiplication/division)
addition and subtraction	• Computes addition, subtraction, multiplication, and division on multiple- step, real-world problems involving money	Computes addition and subtraction on multiple-step real-world problems involving money
• Computes with dollars and cents up to and including \$5.00 and converts to decimals (addition/subtraction only)	Uses the appropriate unit of measure for length	Computes addition, subtraction, multiplication, and division on multiple
Computes 1 operation on real-world problems involving money over	Knows the approximate size of a yard	step, real-world problems involving money
\$5.00 (addition/subtraction only)	Measures length to the nearest centimeter	 Uses the appropriate unit of measure for length
 Computes half price (multiplication/division) 	Converts between inches and feet	 Knows the approximate size of a millimeter
Computes with dollars and cents up to and including \$5.00 and	Knows the approximate size of a pound	 Converts between inches and feet
converts to decimals (multiplication/division)	Knows the approximate size of a gram	 Converts between inches, feet, and yards
Computes 1 operation on real-world problems involving money over \$5.00 (multiplication/division)	Converts between cups and pints	 Selects and uses the appropriate type and size of unit in metric system (mass)
Selects and uses the appropriate type and size of unit in customary	Converts between cups, pints, and quarts	Converts between cups, pints, quarts, and gallons
system (length)	Computes simple conversions among units of time (hours, days)	Apply dimensional analysis to simple real-world problems (capacity)
 Computes basic operations with units of weight/mass 	Computes more difficult conversions among units of time	Computes more difficult conversions among units of time
Converts between cups and pints	 Solves problems involving measurement of time 	Applies dimensional analysis to simple real-world problems (time)
Converts between cups, pints, and quarts	Applies dimensional analysis to simple real-world problems (time)	 Solves difficult problems involving elapsed time, with the conversion of
 Identifies the correct time, given the words, and vice versa 	Solves simple problems involving elapsed time, with the conversion of	hours
Determines elapsed clock time	hours	Solves simple problems involving miles per gallon
Tells time to the nearest quarter hour	Solves simple problems involving miles per gallon	Solves problems involving rates
Determines elapsed time involving whole hours, whole days, whole	Solves simple problems involving miles/kilometers per hour	 Estimates the measure of acute, right, and obtuse angles using 45 and
years	• Estimates the measure of acute, right, and obtuse angles using 45 and	90 degrees as referents
Tells time to the nearest 1 minute	90 degrees as referents	 Measures angles using a protractor
Computes simple conversions among units of time (minutes, hours)	• Determines the perimeter of a figure where some sides are labeled	Determines the perimeter of a figure using non-standard units
• Solves simple problems involving elapsed time, with the conversion of	• Estimates the area of rectangles using square units	Solves problems involving the perimeter of squares, rectangles, or
hours	Determines the area of irregular shapes with partial square units	triangles
 Solves simple problems involving miles/kilometers per hour 	Identifies situations where it is appropriate to calculate area	 Finds the perimeter of a polygon using a formula
Determines the perimeter of a figure where all sides are labeled	Estimates and finds volume of a figure using cubic units	• Describes the change in perimeter when dimensions of an object are
Determines the perimeter of a figure where some sides are labeled	• Uses basic indirect methods to estimate measurements (grids for area of irregular figures)	altered
• Solves simple problems involving the perimeter of squares, rectangles, or triangles	on integrial lightes)	Determines the area of irregular shapes with partial square units Estimates and finde volume of a figure using outpic units
or triangles		Estimates and finds volume of a figure using cubic units
 Estimates the area of rectangles using square units 		Identifies properties of angles

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: Measurement and Data RIT Score Range:201 - 210Statements Last Updated:Mar 10, 2014

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
Represent and Interpret Data	Represent and Interpret Data	Represent and Interpret Data
 Reads and interprets data from a pictograph 	Solves problems using pictographs	 Solves problems using pictographs
 Interprets a pictograph - calculation required 	Organizes data to create simple bar graphs	 Solves problems using bar graphs
 Reads and interprets data from a bar graph 	Solves problems using bar graphs	 Reads and interprets data in line plots
 Reads and interprets dual bar graphs 	Solves problems using dual bar graphs	
 Interprets a simple bar graph - calculation required 	Draws conclusions from data - bar graphs	
 Reads data in a line graph - no calculations 		
New Vocabulary: decade, deposit, longer, miles per hour	New Vocabulary: bar graph, cubic centimeter, cubic unit, larger	New Vocabulary: century, coin, how long
New Signs and Symbols: °F degrees Fahrenheit, ft feet, g gram, in. inch, lb pound, m meter/metre, min minute, yd yard	New Signs and Symbols: cm centimeter/centimetre, variable	New Signs and Symbols: \$ dollar sign, hr hour, ↓ measurement span down, ← measurement span left, → measurement span right, ↑ measurement span up

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.