

# **DesCartes: A Continuum of Learning®**

## **Mathematics**

Goal: Measurement and Data

RIT Score Range: 181 - 190 Statements Last Updated: Mar 10, 2014

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
Geometric Measurement and Problem Solving	Geometric Measurement and Problem Solving	Geometric Measurement and Problem Solving
<ul> <li>Identifies the value of a collection of coins to \$1.00 (with pictures of coins)</li> </ul>	Identifies the value of a collection of coins to \$1.00 (without picture of coins)	Identifies the value of a collection of coins to \$1.00 (without picture of coins)
<ul> <li>Identifies the value of a collection of coins and bills to \$10.00 by</li> </ul>	Adds money with regrouping	Adds money with regrouping
counting on (with picture of money)  • Estimates and measures length of an object to the nearest centimeter	Identifies the value of a collection of coins and bills to \$10.00 by counting on (with picture of money)	Identifies the value of a collection of coins and bills to \$10.00 by counting on (without picture of money)
using a picture of a ruler	Finds equivalent combinations of coins with the same value	Finds equivalent combinations of coins with the same value
<ul> <li>Measures length with customary measures to the inch mark</li> </ul>	Combines a collection of coins and identifies the correct notation	Makes change to \$1.00 by counting on or subtracting
Tells time to the nearest hour	Makes change to \$1.00 by counting on or subtracting	Solves real-world problems involving decimals (not money) using
Tells time to the nearest half hour	Computes with dollars and cents up to and including \$5.00 and	addition and subtraction
<ul> <li>Tells time to the nearest 5 minutes</li> <li>Computes simple conversions among units of time (minutes in an</li> </ul>	converts to decimals (addition/subtraction only)  • Computes 1 operation on addition or subtraction real-world problems involving money up to \$5.00  • Selects and uses the appropriate type and size of unit in customary	Computes with dollars and cents up to and including \$5.00 and converts to decimals (addition/subtraction only)
hour, half hour, quarter hour)  • Connects money with place value		Computes 1 operation on real-world problems involving money over \$5.00 (addition/subtraction only)
Determines the area of irregular shapes by counting square units	system (length)	Computes half price (multiplication/division)
• Determines the area of irregular snapes by counting square units	Uses a variety of non-standard units to measure the same length     Determines more capacity or less capacity	Computes with dollars and cents up to and including \$5.00 and converts to decimals (multiplication/division)
		Computes 1 operation on real-world problems involving money over
	Identifies the correct time, given the words, and vice versa     Determines elapsed clock time	\$5.00 (multiplication/division)
	Determines elapsed clock time     Determines elapsed time under 1 hour or to the hour	Selects and uses the appropriate type and size of unit in customary system (length)
	Determines elapsed time involving whole hours, whole days, whole	Computes basic operations with units of weight/mass
	years	Converts between cups and pints
	Tells time to the nearest 5 minutes Computes simple conversions among units of time (days, weeks) Determines the perimeter of a figure where all sides are labeled Determines the area of irregular shapes by counting square units	Converts between cups, pints, and quarts
		Identifies the correct time, given the words, and vice versa
		Determines elapsed clock time
		Tells time to the nearest quarter hour
		Determines elapsed time involving whole hours, whole days, whole years
		Tells time to the nearest 1 minute
		Computes simple conversions among units of time (minutes, hours)
		Solves simple problems involving elapsed time, with the conversion of hours
		Solves simple problems involving miles/kilometers per hour
		Determines the perimeter of a figure where all sides are labeled
		Determines the perimeter of a figure where some sides are labeled
		Solves simple problems involving the perimeter of squares, rectangles, or triangles
		Estimates the area of rectangles using square units

### **Explanatory Notes**

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\* 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.

Page



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Represent and Interpret Data	Represent and Interpret Data	Represent and Interpret Data
Reads a chart or table - comparisons	Measures length with customary measures to the half-inch mark	Reads and interprets data from a pictograph
Reads a chart or table - numbers	Interprets simple graphs or tables	Interprets a pictograph - calculation required
Interprets simple graphs or tables	Reads and interprets data from a pictograph	Reads and interprets data from a bar graph
• Reads a simple pictograph - comparisons (e.g., largest smallest, most	Solves simple problems based on data from pictographs	Reads and interprets dual bar graphs
often, least often)	Reads a simple bar graph - comparisons (e.g., largest, smallest, most	Interprets a simple bar graph - calculation required
<ul> <li>Solves simple problems based on data from pictographs</li> </ul>	often, least often)	Reads data in a line graph - no calculations
• Reads a simple bar graph - comparisons (e.g., largest, smallest, most	Reads a simple bar graph - numbers (e.g., how many)	
often, least often)	Reads and interprets data from a bar graph	
<ul> <li>Reads a simple bar graph - numbers (e.g., how many)</li> </ul>	Interprets a simple bar graph - calculation required	
<ul> <li>Solves simple problems based on data from bar graphs</li> </ul>	Solves simple problems based on data from bar graphs	
• Compares data from simple graphs (e.g., largest, smallest, most often, least often)	Reads data in a line graph - no calculations	
New Vocabulary: morning	New Vocabulary: changed, clock, estimation, half past, how much time, left over, lowest, millimeter, noon, o'clock, pennies, quarter past, quarter to, what time	New Vocabulary: decade, deposit, longer, miles per hour
New Signs and Symbols: a.m., ¢ cent sign, \$ dollar sign, p.m.		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: : used with time, : used with time	

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