

DesCartes: A Continuum of Learning®

Mathematics

Goal: Measurement and Data

RIT Score Range: 191 - 200 Statements Last Updated: Mar 10, 2014

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
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)	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)
Adds money with regrouping	Adds money with regrouping	Computes with dollars and cents up to and including \$5.00 and converts to decimals (multiplication/division)
 Identifies the value of a collection of coins and bills to \$10.00 by 	Identifies the value of a collection of coins and bills to \$10.00 by counting on (without picture of money)	
counting on (with picture of money)		Computes addition and subtraction on multiple-step real-world problems in solving manager.
Finds equivalent combinations of coins with the same value	Finds equivalent combinations of coins with the same value	problems involving money Computes money problems with multiple operations (addition/
Combines a collection of coins and identifies the correct notation	Makes change to \$1.00 by counting on or subtracting	subtraction only)
 Makes change to \$1.00 by counting on or subtracting 	Solves real-world problems involving decimals (not money) using	Computes addition, subtraction, multiplication, and division on multiple step, real-world problems involving money
Computes with dollars and cents up to and including \$5.00 and converte to designate (addition (subtraction apply))	addition and subtraction	
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)	Uses the appropriate unit of measure for length
	Computes 1 operation on real-world problems involving money over \$5.00 (addition/subtraction only)	Knows the approximate size of a yard
		Measures length to the nearest centimeter
system (length)	Computes half price (multiplication/division)	Converts between inches and feet
Uses a variety of non-standard units to measure the same length	Computes with dollars and cents up to and including \$5.00 and	Knows the approximate size of a pound
Determines more capacity or less capacity	converts to decimals (multiplication/division)	Knows the approximate size of a gram
 Identifies the correct time, given the words, and vice versa 	Computes 1 operation on real-world problems involving money over \$5.00 (multiplication/division)	Converts between cups and pints
Determines elapsed clock time	Selects and uses the appropriate type and size of unit in customary	Converts between cups, pints, and quarts
• Determines elapsed time under 1 hour or to the hour	Selects and uses the appropriate type and size of unit in customary system (length)	Computes simple conversions among units of time (hours, days)
• Determines elapsed time involving whole hours, whole days, whole	Computes basic operations with units of weight/mass	Computes more difficult conversions among units of time
years	Converts between cups and pints	Solves problems involving measurement of time
Tells time to the nearest 5 minutes	Converts between cups, pints, and quarts	Applies dimensional analysis to simple real-world problems (time)
Computes simple conversions among units of time (days, weeks)	Identifies the correct time, given the words, and vice versa	• Solves simple problems involving elapsed time, with the conversion of
Determines the perimeter of a figure where all sides are labeled	Determines elapsed clock time Tells time to the nearest quarter hour Determines elapsed time involving whole hours, whole days, whole years	hours
Determines the area of irregular shapes by counting square units		Solves simple problems involving miles per gallon
		Solves simple problems involving miles/kilometers per hour
		 Estimates the measure of acute, right, and obtuse angles using 45 and 90 degrees as referents Determines the perimeter of a figure where some sides are labeled Estimates the area of rectangles using square units
	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	Determines the area of irregular shapes with partial square units
		Identifies situations where it is appropriate to calculate area
	Solves simple problems involving miles/kilometers per hour Determines the perimeter of a figure where all sides are labeled.	Estimates and finds volume of a figure using cubic units
	Determines the perimeter of a figure where all sides are labeled Determines the perimeter of a figure where some sides are labeled.	Uses basic indirect methods to estimate measurements (grids for area
	Determines the perimeter of a figure where some sides are labeled School simple problems involving the positive of accuracy restaudes.	of irregular figures)
	 Solves simple problems involving the perimeter of squares, rectangles, or triangles 	
	Estimates the area of rectangles using square units	

* 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.

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Represent and Interpret Data	Represent and Interpret Data	Represent and Interpret Data
Measures length with customary measures to the half-inch mark	Reads and interprets data from a pictograph	Solves problems using pictographs
Interprets simple graphs or tables	Interprets a pictograph - calculation required	Organizes data to create simple bar graphs
 Reads and interprets data from a pictograph 	Reads and interprets data from a bar graph	Solves problems using bar graphs
 Solves simple problems based on data from pictographs 	Reads and interprets dual bar graphs	Solves problems using dual bar graphs
• Reads a simple bar graph - comparisons (e.g., largest, smallest, most	Interprets a simple bar graph - calculation required	Draws conclusions from data - bar graphs
often, least often)	Reads data in a line graph - no calculations	
 Reads a simple bar graph - numbers (e.g., how many) 		
Reads and interprets data from a bar graph		
• Interprets a simple bar graph - calculation required		
 Solves simple problems based on data from bar graphs 		
Reads data in a line graph - no calculations		
New Vocabulary: changed, clock, estimation, half past, how much time,	New Vocabulary: decade, deposit, longer, miles per hour	New Vocabulary: bar graph, cubic centimeter, cubic unit, larger
left over, lowest, millimeter, noon, o'clock, pennies, quarter past, quarter to, what time	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: : used with time, : used with time		

Explanatory Notes

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