

DesCartes: A Continuum of Learning®

Goal: Measurement and Data

Mathematics

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
Geometric Measurement and Problem Solving	Geometric Measurement and Problem Solving	Geometric Measurement and Problem Solving
Computes the value of multiple bills and coins (addition/subtraction	Computes with dollars and cents over \$5.00 and converts to decimals	 Measures length to the nearest millimeter
only)	(multiplication/division)	Converts between millimeters, centimeters, meters, and kilometers
Analyzes and computes 1 operation on real-world problems involving	Computes the value of multiple bills and coins (multiplication/division)	Apply dimensional analysis to simple real-world problems (length)
money over \$5.00 (addition/subtraction only)	 Measures length to the nearest millimeter 	Solves problems involving length in the customary system and
 Analyzes and computes 1 operation on real-world problems involving money over \$5.00 (multiplication/division) 	 Converts between inches, feet, and yards 	converts to larger or smaller units
Computes with dollars and cents over \$5.00 and converts to decimals	Converts between millimeters, centimeters, meters, and kilometers	Converts between grams and kilograms
(multiplication/division)	Solves problems involving length in the customary system and	Converts within the metric system
 Computes addition and subtraction on multiple-step real-world 	converts to larger or smaller units	Apply dimensional analysis to simple real-world problems (capacity)
problems involving money	Converts between ounces and pounds	Solves problems involving capacity in the metric system and converts
Computes addition, subtraction, multiplication, and division on multiple-	Converts between ounces, pounds, and tons	to larger or smaller units
step, real-world problems involving money	Converts between cups, pints, quarts, and gallons	Solves problems involving rates
Uses the appropriate unit of measure for length	Converts within the metric system	• Solves problems involving the perimeter of irregular or complex shapes
Knows the approximate size of a millimeter	Apply dimensional analysis to simple real-world problems (capacity)	Describes the change in perimeter when dimensions of an object are altered
Converts between inches and feet	Computes 2-step conversions between units of time	Identifies the formula for perimeter with a variable
Converts between inches, feet, and yards	Applies dimensional analysis to simple real-world problems (time)	Determines the area of a triangle drawn on a grid
 Selects and uses the appropriate type and size of unit in metric system (mass) 	 Solves difficult problems involving elapsed time, with the conversion of hours 	Calculates the area of a rectangle, given labeled sides (customary
 Converts between cups, pints, quarts, and gallons 	 Solves complex problems involving miles/kilometers per hour 	units)
 Apply dimensional analysis to simple real-world problems (capacity) 	 Solves problems involving rates 	• Determines the length or width of a rectangle, given the area (metric
 Computes more difficult conversions among units of time 	 Determines the perimeter of a figure using non-standard units 	units)
 Applies dimensional analysis to simple real-world problems (time) 	 Solves problems involving the perimeter of squares, rectangles, or 	Determines the area of irregular shapes (customary units)
Solves difficult problems involving elapsed time, with the conversion of	triangles	Calculates the volume of rectangular solids Calculates the least huidth as beinth of a sector sular prior, since the
hours	Solves problems involving the perimeter of irregular or complex shapes	 Calculates the length, width, or height of a rectangular prism, given the area (customary units)
 Solves simple problems involving miles per gallon 	Solves problems involving perimeter and converts to larger or smaller	
 Solves problems involving rates 	units	
 Estimates the measure of acute, right, and obtuse angles using 45 and 90 degrees as referents 	 Describes the change in perimeter when dimensions of an object are altered 	
 Measures angles using a protractor 	• Calculates the area of a rectangle, given labeled sides (customary	
 Determines the perimeter of a figure using non-standard units 	units)	
 Solves problems involving the perimeter of squares, rectangles, or triangles 	 Determines the length or width of a rectangle, given the area (metric units) 	
Finds the perimeter of a polygon using a formula	Determines the area of irregular shapes (customary units)	
Describes the change in perimeter when dimensions of an object are altered	 Calculates area and perimeter of a rectangle (customary units) Calculates the volume of rectangular solids 	
Determines the area of irregular shapes with partial square units		
Estimates and finds volume of a figure using cubic 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.



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Mathematics Goal: Measurement and Data RIT Score Range:221 - 230Statements Last Updated:Mar 10, 2014

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
Represent and Interpret Data	Represent and Interpret Data	Represent and Interpret Data
 Solves problems using pictographs Solves problems using bar graphs Reads and interprets data in line plots 	Determines appropriate intervals and/or scale for a bar graph	 Determines appropriate intervals and/or scale for a bar graph Interprets data given in horizontal and vertical bar graphs to solve problems
New Vocabulary: century, coin, how long	New Vocabulary: cubic meter	New Vocabulary: None
New Signs and Symbols: \$ dollar sign, hr hour, ↓ measurement span down, ← measurement span left, → measurement span right, ↑ measurement span up	<i>New Signs and Symbols:</i> h height, I length, mL milliliter/millilitre, mm millimeter/millimetre, V volume, w width	<i>New Signs and Symbols:</i> () order of operations, + addition, kg kilogram, P perimeter

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