

## DesCartes: A Continuum of Learning®

Goal: Measurement and Data

**Mathematics** 

RIT Score Range:241 - 250Statements Last Updated:Mar 10, 2014

| Skills and Concepts to Enhance (73% Probability*)<br>231 - 240   | Skills and Concepts to Develop (50% Probability*)<br>241 - 250                                       | Skills and Concepts to Introduce (27% Probability*)<br>251 - 260             |
|--|--|--|
| Geometric Measurement and Problem Solving  | Geometric Measurement and Problem Solving  | Geometric Measurement and Problem Solving                                    |
| <ul> <li>Measures length to the nearest millimeter</li> </ul>  | <ul> <li>Apply dimensional analysis to simple real-world problems (length)</li> </ul>                | <ul> <li>Solves complex problems involving inscribed figures</li> </ul>      |
| Converts between millimeters, centimeters, meters, and kilometers  | Solves problems involving capacity in the metric system and converts                                 | Calculates the length of one side of a cube, given the volume                |
| <ul> <li>Apply dimensional analysis to simple real-world problems (length)</li> </ul>                                    | to larger or smaller units   | (customary units)  |
| <ul> <li>Solves problems involving length in the customary system and<br/>converts to larger or smaller units</li> </ul> | Solves problems involving area of a rectangle and converts to larger or<br>smaller units (customary) | <ul> <li>Uses properties of angles to solve mathematical problems</li> </ul> |
| <ul> <li>Converts between grams and kilograms</li> </ul>   | <ul> <li>Determines the area of irregular shapes (customary units)</li> </ul>                        |  |
| Converts within the metric system  | <ul> <li>Calculates the area of irregular shapes (metric units)</li> </ul>                           |  |
| <ul> <li>Apply dimensional analysis to simple real-world problems (capacity)</li> </ul>                                  | <ul> <li>Solves complex problems involving inscribed figures</li> </ul>                              |  |
| <ul> <li>Solves problems involving capacity in the metric system and converts<br/>to larger or smaller units</li> </ul>  | Uses properties of angles to solve mathematical problems   |  |
| <ul> <li>Solves problems involving rates</li> </ul>  |  |  |
| Solves problems involving the perimeter of irregular or complex shapes   |  |  |
| <ul> <li>Describes the change in perimeter when dimensions of an object are<br/>altered</li> </ul>                       |  |  |
| <ul> <li>Identifies the formula for perimeter with a variable</li> </ul>   |  |  |
| <ul> <li>Determines the area of a triangle drawn on a grid</li> </ul>  |  |  |
| <ul> <li>Calculates the area of a rectangle, given labeled sides (customary<br/>units)</li> </ul>                        |  |  |
| <ul> <li>Determines the length or width of a rectangle, given the area (metric<br/>units)</li> </ul>                     |  |  |
| <ul> <li>Determines the area of irregular shapes (customary units)</li> </ul>  |  |  |
| <ul> <li>Calculates the volume of rectangular solids</li> </ul>  |  |  |
| <ul> <li>Calculates the length, width, or height of a rectangular prism, given the<br/>area (customary units)</li> </ul> |  |  |
| Represent and Interpret Data   | Represent and Interpret Data   | Represent and Interpret Data   |
| <ul> <li>Determines appropriate intervals and/or scale for a bar graph</li> </ul>  |  |  |
| <ul> <li>Interprets data given in horizontal and vertical bar graphs to solve<br/>problems</li> </ul>                    |  |  |
| New Vocabulary: None   | New Vocabulary: None   | New Vocabulary: None   |
| <i>New Signs and Symbols:</i> ( ) order of operations, + addition, kg kilogram, P perimeter                              | New Signs and Symbols: × multiplication  | 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.

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