Mathematics $\quad$ RIT Score Range: ${ }_{2}^{221-230}$

Goal: Measurement and Data
Skills and Concepts to Enhance (73\% Probability*)
$211-220$

- Analyzes and computes 1 operation on real-world problems involving money over $\$ 5.00$ (addition/subtraction only)
- Analyzes and computes 1 operation on real-world problems involving money over $\$ 5.00$ (multiplication/division)
- Computes with dollars and cents over $\$ 5.00$ and converts to decimals (multiplication/division)
- Computes addition and subtraction on multiple-step real-world
problems involving money
- Computes addition, subtraction, multiplication, and division on multiplestep, real-world problems involving money
- Uses the appropriate unit of measure for length
- Knows the approximate size of a millimeter
- Converts between inches and feet
- Converts between inches, feet, and yards
- Selects and uses the appropriate type and size of unit in metric system (mass)
- Converts between cups, pints, quarts, and gallons
- Apply dimensional analysis to simple real-world problems (capacity)
- Computes more difficult conversions among units of time
- Applies dimensional analysis to simple real-world problems (time)
- Solves difficult problems involving elapsed time, with the conversion of hours
- Solves simple problems involving miles per gallon
- Solves problems involving rates
- Estimates the measure of acute, right, and obtuse angles using 45 and 90 degrees as referents
- Measures angles using a protractor
- Determines the perimeter of a figure using non-standard units
- Solves problems involving the perimeter of squares, rectangles, or triangles
- Finds the perimeter of a polygon using a formula
- Describes the change in perimeter when dimensions of an object are altered
- Determines the area of irregular shapes with partial square units
- Estimates and finds volume of a figure using cubic units
- Identifies properties of angles

| Skills and Concepts to Develop (50\% Probability*) <br> $221-230$ | Geometric Measurement and Problem Solving |
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| • Computes with dollars and cents over $\$ 5.00$ and converts to decimals <br> (multiplication/division) |  |

- Computes the value of multiple bills and coins (multiplication/division)
- Measures length to the nearest millimeter
- Converts between inches, feet, and yards
- Converts between millimeters, centimeters, meters, and kilometers
- Solves problems involving length in the customary system and converts to larger or smaller units
- Converts between ounces and pounds
- Converts between ounces, pounds, and tons
- Converts between cups, pints, quarts, and gallons
- Converts within the metric system
- Apply dimensional analysis to simple real-world problems (capacity)
- Computes 2-step conversions between units of time
- Applies dimensional analysis to simple real-world problems (time)
- Solves difficult problems involving elapsed time, with the conversion of hours
- Solves complex problems involving miles/kilometers per hour - Solves problems involving rates
- Determines the perimeter of a figure using non-standard units
- Solves problems involving the perimeter of squares, rectangles, or triangles
- Solves problems involving the perimeter of irregular or complex shapes
- Solves problems involving perimeter and converts to larger or smaller units
- Describes the change in perimeter when dimensions of an object are altered
- Calculates the area of a rectangle, given labeled sides (customary units)
- Determines the length or width of a rectangle, given the area (metric units)
- Determines the area of irregular shapes (customary units)
- Calculates area and perimeter of a rectangle (customary units)
- Calculates the volume of rectangular solids

Skills and Concepis to introduce ( $27 \%$ Probability ${ }^{*}$ )
231-240

- Measures length to the nearest millimeter
- Converts between millimeters, centimeters, meters, and kilometers - Apply dimensional analysis to simple real-world problems (length)
- Solves problems involving length in the customary system and converts to larger or smaller units
- Converts between grams and kilograms
- Converts within the metric system
- Apply dimensional analysis to simple real-world problems (capacity)
- Solves problems involving capacity in the metric system and converts to larger or smaller units
- Solves problems involving rates
- Solves problems involving the perimeter of irregular or complex shapes
- Describes the change in perimeter when dimensions of an object are altered
- Identifies the formula for perimeter with a variable
- Determines the area of a triangle drawn on a grid
- Calculates the area of a rectangle, given labeled sides (customary units)
- Determines the length or width of a rectangle, given the area (metric units)
- Determines the area of irregular shapes (customary units)
- Calculates the volume of rectangular solids
- Calculates the length, width, or height of a rectangular prism, given the area (customary units)


## DesCartes: A Continuum of Learning ${ }^{\circledR}$

Goal: Measurement and Data

| 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 <br> - Solves problems using bar graphs <br> - 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 <br> - 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, $\downarrow$ measurement span down, $\leftarrow$ measurement span left, $\rightarrow$ measurement span right, $\uparrow$ measurement span up | New Signs and Symbols: h height, I length, mL milliliter/millilitre, mm millimeter/millimetre, V volume, w width | New Signs and Symbols: ( ) order of operations, + addition, kg kilogram, P perimeter |

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[^0]:    Explanatory Notes
     appropriate RIT ranges. Blank cells indicate data are limited or unavailable for this range or document version

