# DesCartes: A Continuum of Learning®

## Mathematics

Goal: Statistics and Probability

**RIT Score Range:** 251 - 260
**Statements Last Updated:** Mar 10, 2014

| Skills and Concepts to Enhance (73% Probability*) 241 - 250 | Skills and Concepts to Develop (50% Probability*) 251 - 260 | Skills and Concepts to Introduce (27% Probability*) > 260 |
|---|---|---|
| Interpreting Categorical and Quantitative Data | Interpreting Categorical and Quantitative Data | Interpreting Categorical and Quantitative Data |
| • Reads and interprets data in tables<br>• Reads and interprets data in box-and-whisker plots<br>• Reads and interprets interquartile range in box-and-whisker plots<br>• Reads and interprets data in stem-and-leaf plots<br>• Determines the range of a complex set of data<br>• Identifies outliers on a data display (e.g., uses interquartile range to identify outliers on a box-and-whisker plot)<br>• Determines the correlation for a set of data<br>• Identifies a set of data with a given mean, median, and/or mode | • Interprets the meaning of slope and intercepts in problem solving situations<br>• Reads and interprets interquartile range in box-and-whisker plots<br>• Solves complex problems involving mean<br>• Identifies outliers on a data display (e.g., uses interquartile range to identify outliers on a box-and-whisker plot)<br>• Computes and compares mean, median, mode, and range in simple examples to demonstrate that they may differ for a given set of data | • Reads and interprets interquartile range in box-and-whisker plots<br>• Identifies outliers on a data display (e.g., uses interquartile range to identify outliers on a box-and-whisker plot) |
| Using Sampling and Probability to Make Decisions | Using Sampling and Probability to Make Decisions | Using Sampling and Probability to Make Decisions |
| • Determines probability using counting procedures<br>• Determines probability using tables<br>• Determines the complement of a complex event<br>• Determines probability using an area model<br>• Uses theoretical probability to predict future events<br>• Predicts from an analysis of data and statistical measures<br>• Describes the population based on a given sample | • Determines the probabilities of complex compound events (independent)<br>• Uses random sampling techniques | • Determines the probabilities of compound events (dependent) |
| *New Vocabulary:* None | *New Vocabulary:* None | *New Vocabulary:* None |
| *New Signs and Symbols:* • outlier | *New Signs and Symbols:* None | *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.