

Math DesCartes: Data Analysis, Statistics and Probability

Skills: Statistics and Data Analysis

Students:	DesCartes Skills: (Highlight the skills related to your chosen standard/concept)
	RIT Above 261: <ul style="list-style-type: none"> • Reads and interprets interquartile range in box-and-whisker plots
	RIT 251-260: <ul style="list-style-type: none"> • Solves complex problems involving mean • Computes and compares mean, median, mode, and range in simple examples to demonstrate that they may differ for a given set of data • Evaluates how adding data to a set of data affects the measures of center • Uses the regression line method to make predictions
	RIT 241-250: <ul style="list-style-type: none"> • Reads and interprets data in tables • Reads and interprets data in box-and-whisker plots • Reads and interprets data in stem-and-leaf plots • Determines the range of a complex set of data • Determines the correlation for a set of data • Identifies a set of data with a given mean, median, and/or mode • Predicts from an analysis of data and statistical measures
	RIT 231-240: <ul style="list-style-type: none"> • Interprets data given in tables to solve problems • Interprets data given in horizontal and vertical bar graphs to solve problems • Interprets data given in line graphs to solve problems • Interprets data given in circle graphs to solve complex problems (with percents) • Reads and interprets data in box-and-whisker plots • Determines the mean of a complex set of data (e.g., fractions, integers, many data points) • Estimates the mean from a set of data • Solves problems with missing data when the mean is known • Determines the median from a complex set of data (e.g., not in order, many data points) • Determines the range of a complex set of data • Estimates line of best fit to make predictions • Identifies outliers on a data display (e.g., uses interquartile range to identify outliers on a box-and-whisker plot) • Predicts from an analysis of data and statistical measures • Predicts from charts and tables
	RIT 221-230: <ul style="list-style-type: none"> • Interprets data given in tables to solve problems • Interprets data given in circle graphs to solve complex problems (with percents) • Determines the average (mean) of a simple set of data

	<ul style="list-style-type: none"> • Determines the mean of a complex set of data (e.g., fractions, integers, many data points) • Estimates the mean from a set of data • Solves simple problems involving mean • Solves problems with missing data when the mean is known • Determines the middle value (median) from a simple set of data • Determines the mode of a set of data • Explains rationale for determining the mean, median, or mode of a set of data • Draws conclusions from data - charts • Predicts from line graphs • Predicts from plotted data
	RIT 211-220: <ul style="list-style-type: none"> • Interprets data in line graphs (e.g., change over time) • Reads and interprets circle graphs • Interprets data given in circle graphs to solve simple problems (with percents) • Reads and interprets Venn diagrams • Reads and interprets data in scatter plots • Reads and interprets data in line plots • Determines the average (mean) of a simple set of data • Solves simple problems involving mean • Draws conclusions from data - charts • Predicts from pictographs and bar graphs • Predicts from plotted data
	RIT 201-210: <ul style="list-style-type: none"> • Reads and interprets tables • Understands how the omission or duplication of data affects the interpretation of results from a pictograph • Reads and interprets data given in percent form on a circle graph • Interprets data given in circle graphs to solve simple problems (with percents) • Draws conclusions from data - bar graphs • Predicts from pictographs and bar graphs • Predicts from simple charts and tables
	RIT 191-200: <ul style="list-style-type: none"> • Reads and interprets data from a bar graph • Reads and interprets dual bar graphs • Reads and interprets simple line graphs • Reads and interprets data given in percent form on a circle graph • Draws conclusions from data - tally charts or frequency tables
	RIT 181-190: <ul style="list-style-type: none"> • Interprets simple graphs or tables • Reads and interprets data from a bar graph
	RIT 171-180: <ul style="list-style-type: none"> • Interprets simple graphs or tables • Interprets data using tally charts • Reads and interprets data from a pictograph

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Skills: Statistics and Data Analysis

Lesson Title:

Standard/Concept for All:

Introduction: (Get Attention; Connect to Prior Knowledge)

For Students Ready for a Challenge:

Lesson/Activity:

Resources:

Means of Assessment:

For Most Students:

Lesson/Activity:

Resources:

Means of Assessment:

For Students Needing Extra Support:

Lesson/Activity:

Resources:

Means of Assessment:

Closure/Summary for All: