

# Periodic and Piecewise Functions I Activity Objectives

Activity Title	Mathematical Objectives
Cell Phone Plan Pricing -Verizon: Investigating Piecewise Functions (p. 6)	Create and graph a piecewise function model Evaluate a function at a given value from an equation or graph Use numerical results to make informed consumer decisions
Credit Card Balance Transfer #2: Working with Financial Formulas (p. 10)	Use annuity formulas to find the future value of an investment Create a piecewise function to model a real-world context Use numerical results to make informed consumer decisions
Credit Card Balance Transfer #3: Working with Financial Formulas (p. 14)	Use annuity formulas to find the future value of an investment Create and graph piecewise functions to model real-world data Use graphical results to make informed consumer decisions
Custom Greeting Cards: Working with Piecewise Functions (p. 18)	Create and graph a piecewise function model Evaluate a function at a given value from an equation or graph Use numerical results to make informed consumer decisions
Hours of Daylight - Anchorage: Working with Sinusoidal Models (p. 22)	Determine the periodic function that will best fit a scatter plot Calculate the midline and amplitude of a sinusoidal model Calculate the period of a periodic data set Create a sinusoidal model for a periodic data set algebraically
Hours of Daylight - Easter Island: Working with Sinusoidal Models (p. 26)	Determine the periodic function that will best fit a scatter plot Calculate the midline and amplitude of a sinusoidal model Calculate the period of a periodic data set Create a sinusoidal model for a periodic data set algebraically
Hours of Daylight - Perth: Working with Sinusoidal Models (p. 30)	Determine the periodic function that will best fit a scatter plot Calculate the midline and amplitude of a sinusoidal model Calculate the period of a periodic data set Create a sinusoidal model for a periodic data set algebraically
Hours of Daylight - Phoenix: Working with Sinusoidal Models (p. 34)	Determine the periodic function that will best fit a scatter plot Calculate the midline and amplitude of a sinusoidal model Calculate the period of a periodic data set Create a sinusoidal model for a periodic data set algebraically
Hours of Daylight: Using Inverse Trigonometric Functions (p. 38)	Use inverse trig functions to solve trigonometric equations Create a sinusoidal function model for a periodic data set
The Cost of Entertainment: Working with Piecewise Functions (p. 42)	Create and graph a piecewise function from a verbal description Evaluate a piecewise function at a given value Use numerical results to make informed consumer decisions