

# Exponential and Logarithmic Functions I Activity Objectives

Activity Title	Mathematical Objectives
Credit Card Balance Transfer: Working with Financial Formulas (p. 6)	Use the present value of an annuity formula Solve exponential equations with logarithms Interpret graphs of functions
DVD Player Sales: Working with Logarithms (p. 10)	Solve an exponential equation with logarithms Find the inverse of an exponential model Evaluate and graph a logarithmic function
Government Employee Salaries: Working with Percentage Change (p. 14)	Calculate the average annual percentage change of a data set Determine average annual growth factors Solve exponential equations using logarithms
Living Longer: Using Exponential Function Models (p. 18)	Use regression to find an exponential model Interpret the meaning of the initial value and growth factor Solve an exponential equation with logarithms
Low Interest or Cash Back: Using Financial Formulas (p. 22)	Calculate the monthly payment from the annuity formula Solve an exponential equation with logarithms Evaluate an exponential function at a given value
Shopping Center Planning: Looking at Exponential and Linear Models (p. 26)	Find the growth factor of an exponential function from a table Create an exponential model for a data set algebraically Use regression to find a linear model Interpret the meaning of the slope of a linear function
The Bank Pays You: Using Compound Interest (p. 30)	Use the compound interest formula Solve a power function equation using rational exponents Find the annual percentage yield for a given interest rate
The Bank Pays You #2: Using Compound Interest (p. 34)	Use the compound interest formula Solve an exponential function with logarithms Solve a power function equation by using rational exponents Find the point of intersection of two exponential equations
The Cost of Living: Working with Exponential Models (p. 38)	Find the exponential growth factor from a verbal description Create an exponential model algebraically Evaluate an exponential equation at a given value
The Cost of Living #2: Working with Exponential Models (p. 42)	Find the exponential growth factor from a verbal description Create an exponential model algebraically Solve an exponential equation using logarithms