Financial Math

Instructional Focus: Analyze and apply different types of interest and rate

ccss	4 – Mastery	3 – Proficient	2 - Basic	1 – Below Basic	0 – No Evidence
Interpret Expressions (A.SSE.1)	Can extend thinking beyond the standard, including tasks that may involve one of the following: • Designing • Connecting • Synthesizing • Applying • Justifying • Critiquing • Analyzing • Creating	Interpret individual parts of expressions (such as variables, coefficients, factors, etc.) and explain their meaning in terms of the context in <u>all of the</u> <u>following:</u> • Simple Interest • Compound Interest • Annuities Group parts of an expression and interpret their meaning in terms of the context in <u>all</u> <u>of the following:</u> • Simple Interest • Compound Interest	Interpret individual parts of expressions (such as variables, coefficients, factors, etc.) <u>and explain</u> <u>their meaning in terms of</u> <u>the context in two of the</u> <u>following:</u> • Simple Interest • Compound Interest • Annuities Group parts of an expression and interpret their meaning <u>in terms of the context in</u> <u>two of the following:</u> • Simple Interest • Compound Interest	Interpret individual parts of expressions (such as variables, coefficients, factors, etc.) in all of the following: • Simple Interest • Compound Interest • Annuities Group parts of an expression and interpret their meaning in all of the following: • Simple Interest • Compound Interest • Annuities	Little evidence of reasoning or application to solve the problem Does not meet the criteria in a level 1
Create and solve equations (A.CED.2 A.CED.4)	Proving	 Annuities Create and solve equations to represent relationships in contextual situations, including <u>all</u> the following situations: Simple Interest Compound Interest Annuities Amortization 	 Annuities <u>Create and solve equations</u> to represent relationships in contextual situations, including <u>two</u> the following situations: Simple Interest Compound Interest Annuities Amortization 	Create and solve equationsto represent relationships incontextual situations, in oneof the following situations:• Simple Interest• Compound Interest• Annuities• Amortization	
Exponential and Logarithmic inverses (F.BF.5)		Recognize that exponential and logarithmic functions are inverses of each other and use these functions to <u>solve</u> <u>real-world problems.</u>	Recognize that exponential and logarithmic functions are inverses of each other and use these functions to solve logarithmic and exponential equations.	Recognize that exponential and logarithmic functions are inverses of each other and <u>convert from one form into</u> <u>the other.</u>	
Compare Rate of Change (F.LE.3, F.IF.6)		Calculate and compare the rate of change and value of function presented in symbolic and table form in context of a situation <u>and use</u> <u>it to make a decision</u> • Stated rate • Effective rate	Calculate and compare the rate of change and value of function presented in symbolic <u>and</u> table form <u>in</u> <u>context of a situation</u> • Stated rate • Effective rate	Calculate the rate of change and value of a function presented in symbolic <u>or</u> table form • Stated rate • Effective rate	

A.CED.2 Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales.

A.CED.4 Rearrange formulas to highlight a quantity of interest, using the same reasoning as in solving equations. For example, rearrange Ohm's law V = IR to highlight resistance R.

A.SSE.1 $\,$ Interpret expressions that represent a quantity in terms of its context. \star

a. Interpret parts of an expression, such as terms, factors, and coefficients.

b. Interpret complicated expressions by viewing one or more of their parts as a single entity. For example, interpret P(1+r)n as the product of P and a factor not depending on P.

F.BF5. (+) Understand the inverse relationship between exponents and logarithms and use this relationship to solve problems involving logarithms and exponents.

F.LE.3 Observe using graphs and tables that a quantity increasing exponentially eventually exceeds a quantity increasing linearly, quadratically, or (more generally) as a polynomial function. *(Modeling Standard)

F.IF.6 Calculate and interpret the average rate of change of a function (presented symbolically or as a table) over a specified interval. Estimate the rate of change from a graph. \star