

NC Math 3 Course Overview A – Functions

August 29 – September 25

This section of Math 3 will cover the following standards...

NC.M3.F-IF.4 Interpret key features of graphs, tables, and verbal descriptions in context to describe functions that arise in applications relating two quantities to include periodicity and discontinuities.

NC.M3.F-IF.9 Compare key features of two functions using different representations by comparing properties of two different functions, each with a different representation (symbolically, graphically, numerically in tables, or by verbal descriptions).

NC.M3.F-IF.2 Use function notation to evaluate piecewise defined functions for inputs in their domains, and interpret statements that use function notation in terms of a context.

NC.M3.F-IF.7 Analyze piecewise, absolute value, polynomials, exponential, rational, and trigonometric functions (sine and cosine) using different representations to show key features of the graph, by hand in simple cases and using technology for more complicated cases, including: domain and range; intercepts; intervals where the function is increasing, decreasing, positive, or negative; rate of change; relative maximums and minimums; symmetries; end behavior; period; and discontinuities.

NC.M3.F-BF.1b Build a new function, in terms of a context, by combining standard function types using arithmetic operations.

NC.M3.F-BF.3 Extend an understanding of the effects on the graphical and tabular representations of a function when replacing $f(x)$ with $k \cdot f(x)$, $f(x) + k$, $f(x) + k$ to include $f(k \cdot x)$ for specific values of k (both positive and negative).

NC.M3.A-CED.1 Create equations and inequalities in one variable that represent absolute value, polynomial, exponential, and rational relationships and use them to solve problems algebraically and graphically.

NC.M3.A-CED.2 Create and graph equations in two variables to represent absolute value, polynomial, exponential and rational relationships between quantities.

NC.M3.A-CED.3 Create systems of equations and/or inequalities to model situations in context.

NC.M3.A-REI.11 Extend an understanding that the x -coordinates of the points where the graphs of two equations $y = f(x)$ and $y = g(x)$ intersect are the solutions of the equation $f(x) = g(x)$ and approximate solutions using a graphing technology or successive approximations with a table of values.

Tentative Date for TEST A: Tuesday, September 25, 2018

Date	I can...	A#	Assignment	Follow-Up?
8/29/18				
8/30/18				
8/31/18				
9/4/18				
9/5/18				
9/6/18				
9/7/18				
9/8/18				
9/11/18				
9/12/18				
9/13/18				
9/14/18				
9/17/18				
9/18/18				
9/19/18 – 9/24/18				