



MATH NEWS



LAFAYETTE
PARISH SCHOOL SYSTEM

Algebra I, Module 3, Topic B

Algebra I

Module 3: Linear and Exponential Functions

Math Parent Letter

This document is created to give parents and students a better understanding of the math concepts found in Eureka Math (© 2013 Common Core, Inc.) that is also posted as the Engage New York material which is taught in the classroom. Module 3 of Eureka Math (Engage New York) has students extend their study of functions to include function notation and the concepts of domain and range. They explore many examples of functions and their graphs, numerically, symbolically, and verbally; translate between representations; and understand the limitations of various representations.



Focus Area Topic B:

Functions and Their Graphs

Words to Know

Function: A correspondence between two sets, X and Y , in which each element of X is matched to one and only one element of Y .

Domain: The set X of a function; input values.

Range: The set Y of a function; output values.

Linear Function: A polynomial function of degree 1.

Average Rate of Change: Given a function f whose domain includes the closed interval of real numbers $[a, b]$ and whose range is a subset of the real numbers, the average rate of change on the interval $[a, b]$ is

$$\frac{f(b)-f(a)}{b-a}$$

Set-Builder Notation: An abbreviation of the elements that satisfy a function.

{type of element | condition on each element}



Focus Area Topic B:

Functions and Their Graphs

Lesson 8: Why Stay With Whole Numbers?

Introduction to lesson:

<http://mathworld.wolfram.com/FigurateNumber.html>

Exit Ticket Video Link:

<http://youtu.be/VOF0VPAXirU>

Lesson 9: Representing, Naming, and Evaluating Functions

http://youtu.be/IQ0YJiF3_E4

Lesson 10: Representing, Naming, and Evaluating Functions

<http://youtu.be/kxsf2jnICig>

Lesson 11: The Graph of a Function

<http://youtu.be/gGzweM24ddA>

Lesson 12: The Graph of the Equation $y = f(x)$

<http://youtu.be/aDlj3GrvDTc>

Lesson 13: Interpreting the Graphs of Functions

During the lesson:

<http://mars.jpl.nasa.gov/msl/>

http://www.nasa.gov/mission_pages/msl/multimedia/gallery/pia13282.html

<http://mars.jpl.nasa.gov/msl/mission/timeline/edl/>

<http://www.jpl.nasa.gov/video/index.php?id=1001>

<http://www.wired.com/thisdayintech/2010/11/1110mars-climate-observer-report/>

Exit Ticket Video Link:

<http://youtu.be/SwhuIn3Q2uA>

Lesson 14: Linear and Exponential Models – Comparing Growth Rates

<http://youtu.be/YjwDmxti3Dk>

