

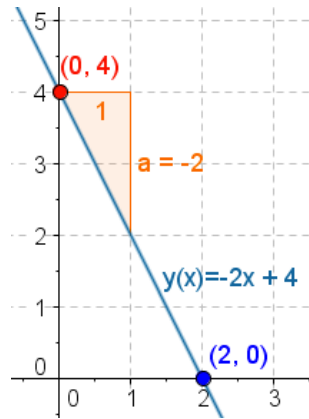
# Linear Functions and Equations

Math 2, Unit 2

Anaheim Union High School District

## Why are we studying this?

A special mathematical rule assigns to each member of one set a unique member of another set, known as a function. These mathematical rules can be described using words, tables, graphs and equations. Functions help us model data to be able to make predictions.



Sample question we will be able to answer: If the height of 1 cup is 9 cm, and the lip is 2 cm, how can we use this information to determine the total height of 10 cups stacked inside of each other?



### Real World Applications in this Unit

- Rate/Rates as Graphs and Equations
- Reaction Distance when Driving
- Rebound Height of a Ball
- Cell Phone Plans

### Math Topics Addressed in this Unit:

- Define, Evaluate and Compare Functions
- Understand  $y = mx + b$
- Use Similar Triangles to Find Slope
- Use Linear Functions to Model Relationships Between Quantities
- Analyze Graphs of Linear Functions in Context

Dear Student & Parent/Guardian,

In this unit we will expand our understanding of patterns in mathematics to the concept of linear functions and equations and how they can help us interpret real-world data!

We will be collecting data by stacking cups, measuring nuts and bolts, analyzing input and output values in a function box, and predicting how many rubber bands are needed to allow an action figure to safely bungee jump from a given height.

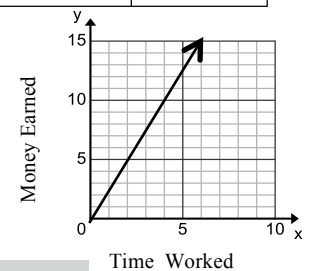
-AUHSD Math Teachers

Who has the better job, Randy or Ivan?

Randy's job is represented in the following table:

	Monday	Wednesday	Friday
Time Worked	2 hours	4 hours	5 hours
Money Earned	\$12	\$24	\$30

Ivan's job is represented by the graph:



### A Note About Homework:

Homework in this unit will focus on concepts learned prior units, necessary for success in Math Two, as well as current topics of writing equations and extending patterns. Topics include:

- Simplifying Expressions
- Operations with Integers
- Identifying Functions
- Finding Slope
- Writing Equations from Patterns, Tables and Graphs