Intro to functions 2.27

Welcome, hand back assessments

Discuss what a function is:

A clearly-described rule that assigns to each value of one quantity a single value of a second quantity is a function.
A function can be described as a table, formula, mapping, or graph.
Not every table, graph, formula, mapping is a function

Students fill in example 1 and create an equation for the scenario.

Example 2:
Imagine a stone is being dropped off a cliff that is 256 feet high. Can we assume the speed is constant? Is the linear equation describing the situation still valid?

Show youtube video “10 second ball drop”
Have students redo example 2 and answer the questions again.

Lets make a prediction on a x value that is not on the table say 3.5 second. Use proportions and the other points to determine how far the rock has fallen after 3.5 seconds.

$\frac{16}{1} = \frac{x}{3.5}$ $\frac{64}{2} = \frac{x}{3.5}$ $\frac{144}{3} = \frac{x}{3.5}$

Do we see a pattern? Can we make a prediction about 3.5 seconds.

We should consider the entire time interval of $0 \leq t \leq 4$ to tell the whole story.

Work with a partner on exercises 1-6

Homework: Finish exercises 1-6