

Target 3-5 Independent + Dependent Variables

Algebra 1

11-18-13

Write the equation with intercept (0, 5) through (2, 4)

$$b = 5$$

$$m = \frac{4-5}{2-0} = -\frac{1}{2}$$

equation: $y = -\frac{1}{2}x + 5$

I can determine independent and dependent variables in real world situations.

Independent Variables

happens first

x-axis

time

months

age

years in school

hours worked

doing your chores

Dependent variables

happens second

y-axis

temperature

amount of age

growth

Knowledge

money made

going to the movies

Circle the independent variable and underline the dependent variable:

① the number of people visiting the zoo and the rainfall

② gas mileage and speed of the car

③ income and age

④ time and temperature

⑤ number of items purchased and the total price

⑥ hot dogs sold and number of people at the blazer game

⑦ number of video games sold and price

① Climate: In warm climates, the average amount of electricity used rises as the daily average temperature increases, and falls as the daily average temperature decreases. Identify the independent and the dependent variables for this function.

What is causing the change?

What happens first?

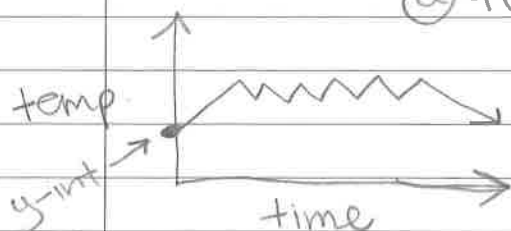
Independent: temperature Dependent: Amount of electricity

② # of calories you burn increases as the # of minutes that you walk increases.
Independent: # of minutes Dependent: # of calories

③ The graph represents the temperature in Ms. Ling's classroom on a winter school day.

④ What is happening in the graph? Determine independent + dependent variables.

④ the temp is changing b/c door opens (time, temp) + closes



What does the y-intercept mean?

When it's at 0 time

the temp. was a certain number. $(0, \text{temp})$

④ independent = time
dependent = temp

④ The graph represents Macy's speed as she swims laps in a pool. Describe what is happening in the graph.



What does the y-intercept mean?
no speed when she began to swim

(time, speed) indep: time
depend: speed

In the graph, she is picking up speed during the lap, but has to slow down turn around at the end, then she picks up speed again during the next lap.

- Math Movies -

HW: Indep + Depend. Variables in the REAL WORLD WKST

