Warm Up: 1/11

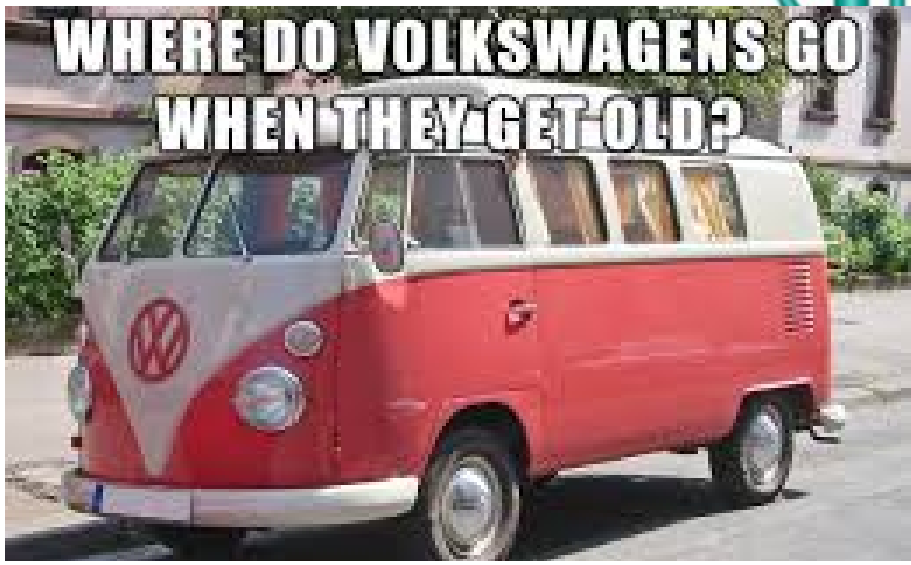
1. What does it mean for something to be *independent*?

2. What does it mean for something is *dependent*?

January 11th, 2017

Agenda:

- Warm Up (10)
- Independent/Dependent (15)
- Jigsaw (30)
- Cut and Paste (20)
- Exit Slip (10 min)



Essential Question:

How are independent and dependent quantities represented graphically?

Workbooks:

- Grab a book from bookshelf at the back of the room.
- Write your name on the spine using a Sharpie.
- Open to pg. 4
- Sit quietly and wait for further instructions.

What's the Dependency?

Have you ever planned for a party? You may have purchased ice, gone grocery shopping, selected music, made food, or even cleaned in preparation. Many times, these tasks depend on another task being done first. For instance, you wouldn't make food before grocery shopping, now would you?

Let's consider the relationship between:

- the number of hours worked and the money earned.
- your grade on a test and the number of hours you studied.
- the number of people working on a particular job and the time it takes to complete a job.
- the number of games played and the number of points scored.
- the speed of a car and how far the driver pushes down on the gas pedal.

Endangered Species:

The Elkwood Aquatic Society is working with various reptile species to increase their populations. In their latest effort, the initial population of 450 endangered turtles tripled each year for the past five years.

Independent: Time (years)

Dependent: Population (turtles)

Commuter Flight:

A commuter flight between two cities in Oregon takes about 40 minutes. The plane will increase its altitude for the first half of the flight until it gets to 18,000 feet, and then it will descend for the second half of the flight. The plane ascends and descends at a constant rate of 900 feet per minute.

Independent:

Time (minutes)

Dependent:

Altitude (feet)

Jigsaw:

- Each pair gets two scenarios.
  - Identify the independent and dependent quantities (include units)
- Person B, raise your hand when your pair has finished.

Matching Graphs:

- Cut out graphs on pg. 11 and pg. 13.
- Get a glue stick from the blue pouch on the wall.

Matching Graphs:

- Match the 8 graphs with their scenario.
  - Hint: Think of patterns in movement both in the scenario and in the graph.

Homework:

- Signed Syllabus
  - Due Tomorrow (1/12)
- Bring course materials!

Exit Slip:

Homework: Syllabus and worksheet

1. Identify the independent and dependent quantities for the problem situation.

Gillian is playing video games at an arcade. Gillian starts with $40 and is playing games that cost 50 cents per game.

2. Which of the following graphs would best represent the situation. Explain your choice.