Warm-Up

1. Sit at your new seat.

2. Grab a Notes page from the front table

3. ALL phones should be put away or in the pouches.

What am I learning today?

Unit 4 - How to create a scatterplot

How will I show that I learned it?

I can... Gather data, identify the explanatory and response variables, and plot on a coordinate plane

https://www.learner.org/courses/againstallodds/unitpages/unit10.html

Scatterplots – Displays a relationship between 2 quantitative variables measured on the SAME individual

***Each axis gets a variable and a LABEL

***Each individual will be represented as an ordered pair on the coordinate graph

Explanatory Variable (x) – EXPLAINS or causes changes in the response variable; this is the independent variable

Response Variable (y) – Measures an outcome or result of a study; this is the dependent variable

Examples - Identify the explanatory and response variable.

a) The amount of time spent studying for a statistics exam and the grade on the exam.
E R

b) The weight in kilograms and the height in centimeters of a person.
R E

c) Inches of rain in the growing season and the amount of corn grown.
E R

d) A family's income and the years of education their child completes.
E R

e) Price of a house and the square footage of the house.
R E

f) Amount of snow in the Colorado mountains and the volume of water in the area rivers.
E R

Examples:

Years in college and amount of income

E R

Gas used and the amount distance traveled on a car trip

R E

Speed and time it takes to travel on a car trip

E R

Example:

Ninth grade boys at a school go backpacking every fall. Before leaving, their backpack is weighed. Here's the data from 8 students one year:

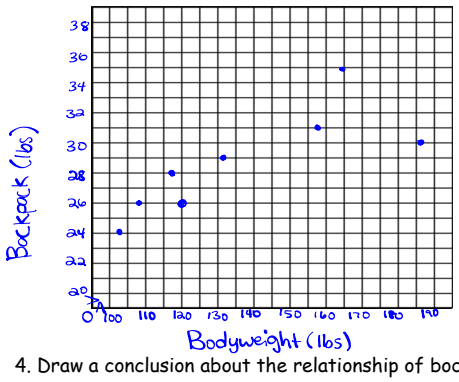
Body weight (lb):	120	187 (max)	109	103 (min.)	131	165	158	116
Backpack (lb):	26	30	26	24 (min)	29	35 (max)	31	28

1. Decide which variable is which:

Explanatory (x): Body weight (lbs)

Response (y): Backpack weight (lbs)

2. Label and scale axes. 3. Plot individual data values.



4. Draw a conclusion about the relationship of body and backpack weight.

The relationship of body and backpack weight is positive since both increase.

Activity 4.1 Tedious tasks take time Name: _____

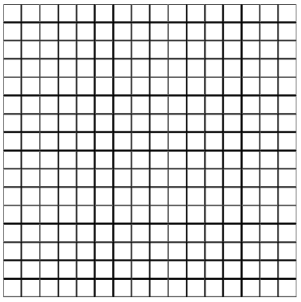
Materials: calculator, stopwatch

Follow the steps in text on page 142 and 143.

Use the chart to summarize your personal data.

Task number	Total number of digits typed	Time to nearest second
1		
2		
3		
4		
5		
6		

Make a scatterplot for your data.



Describe what the graph tells you about
the relationship between the two variables.