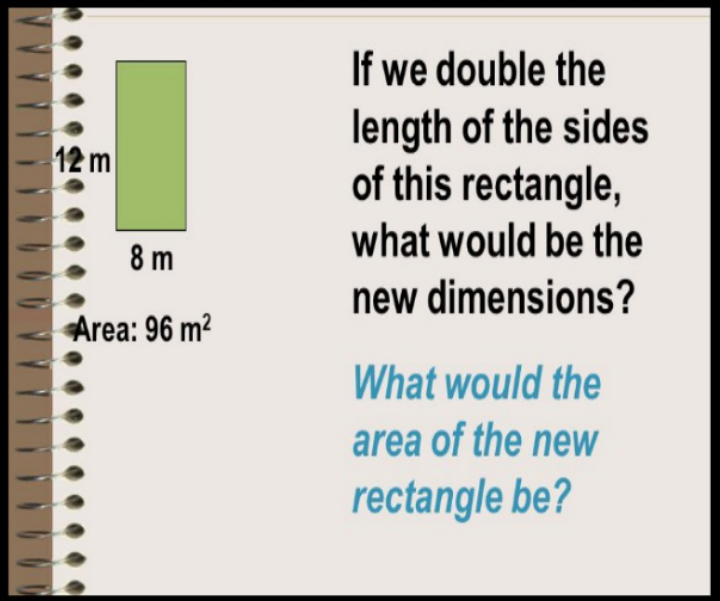
3.11.20

Graphing: Proportions

Today's Objectives:

- Solve Proportion Problems
  - From an equation
  - From a data table
- Practice on a computer simulation



- Proportions (double, triple, halve)

1. Figure out "what's the multiplier?" double = 2
2. Plug the multiplier into the equation
3. Keep the other variables and numbers as 1

$$\$ = (\text{Pay Rate})(\text{Hours Worked})$$

If your pay rate is doubled, your paycheck will 2·1 = ×2

If your pay rate is quadrupled, your paycheck will ×4

If your pay rate is halved, your paycheck will ×1/2

1. Figure out "what's the multiplier?"
2. Plug the multiplier into the equation
3. Keep the other variables as 1

$$\text{YourShare} = \frac{\text{TotalLotteryAmount}}{\#\text{ofwinners}}$$

2

If the lottery amount doubles, your share $\frac{2}{1} = \times 2$

If the # of winners doubles, your share $\frac{1}{2} = \times 1/2$

2

$$y = x^2$$

<u>If you...</u>

- double x, y will ... $2^2 = \times 4$
- triple x, y will ... $3^2 = \times 9$
- halve x, y will ... $\left(\frac{1}{2}\right)^2 = \times \frac{1}{4}$

Proportions - From a Data Table

x	y
0.0	0.0
1.0	4.0
2.0	8.0
3.0	12.0
4.0	16.0

When you double X, Y will.....

double!

x	y
0.0	0.0
1.0	1.0
2.0	4.0
3.0	9.0
4.0	16.0

When you double X, Y will.....

x4 :)

WWDB?

1. www.physicsclassroom.com, Concept Builders
2. Relationships and Graphs, Which One Doesn't Belo
3. Start Interactive

4. Leave up your trophies! :)

Volume and Pressure

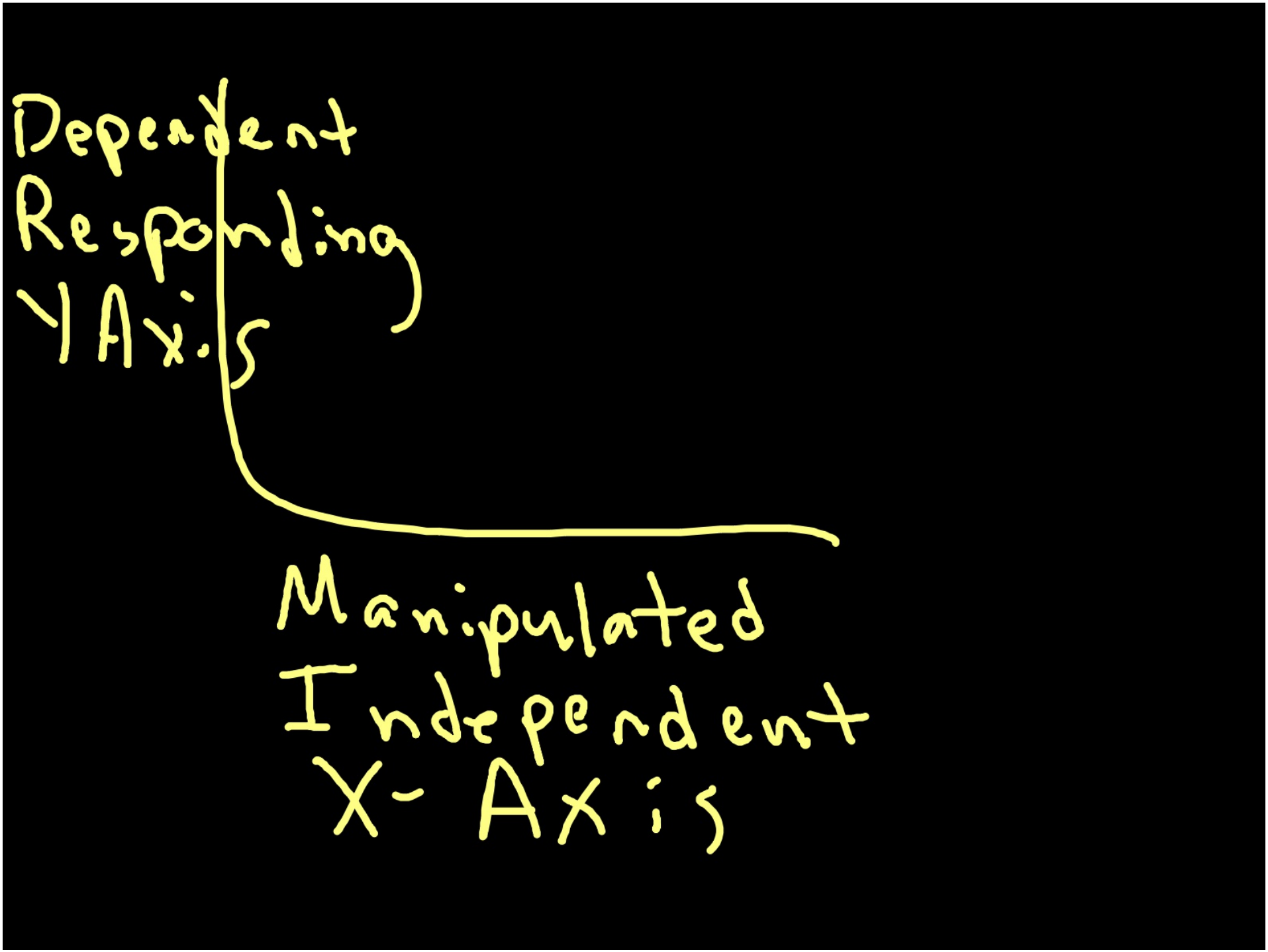
(pa)
40
8
4
2
1
0.8
0.5
0.4

Type of graph: _____

Substituted Equation: _____

Sketch of graph:

- When V is doubled, P will _____
- When V is tripled, P will _____
- When V is halved, P will _____


Dependent
Responding
Y Axis
Manipulated
Independent
X- Axis