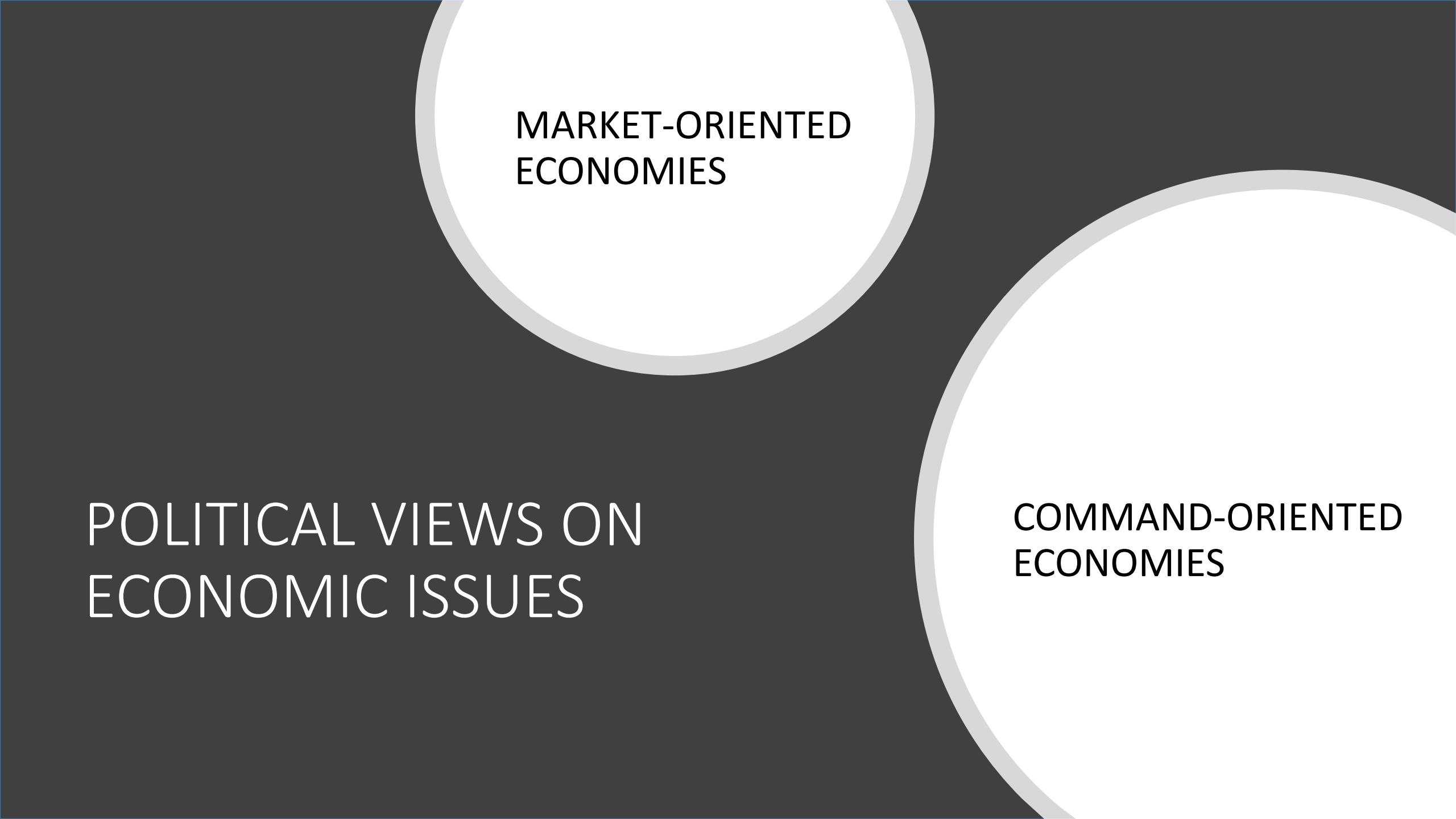




MARKET-ORIENTED
ECONOMIES

POLITICAL VIEWS ON ECONOMIC ISSUES

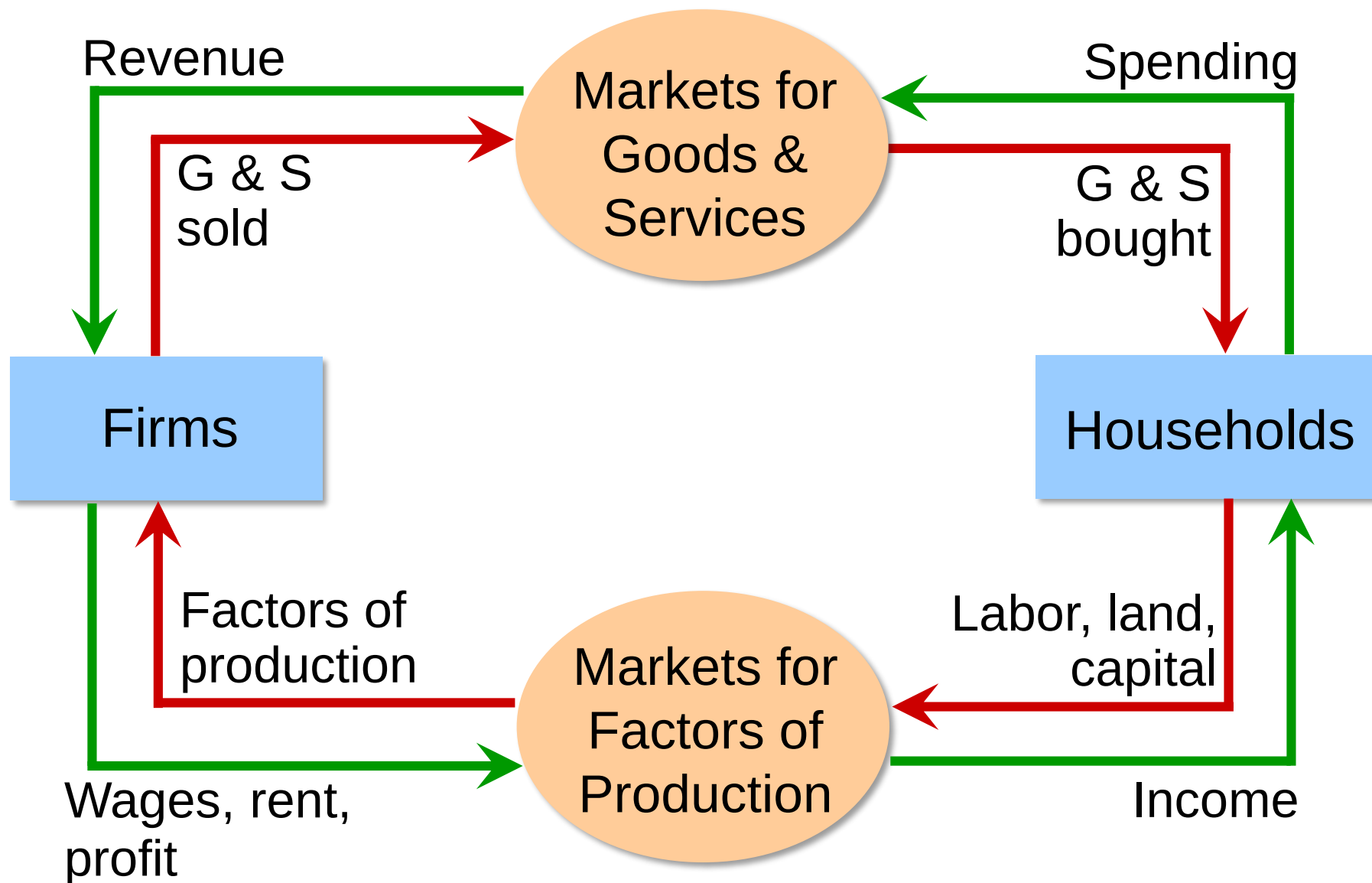
COMMAND-ORIENTED
ECONOMIES

II. The Circular Flow Model

Taxonomy of a Market Economy, p. 20

- Economic Agents
 - Households - initial owners of factors of production and buy goods and services
 - Firms - buy factors of production from households and produce goods and services
 - Government -but not in this simple model
- Types of Markets
 - Goods and Service Markets
 - Factor Markets - buy and sell inputs used for production

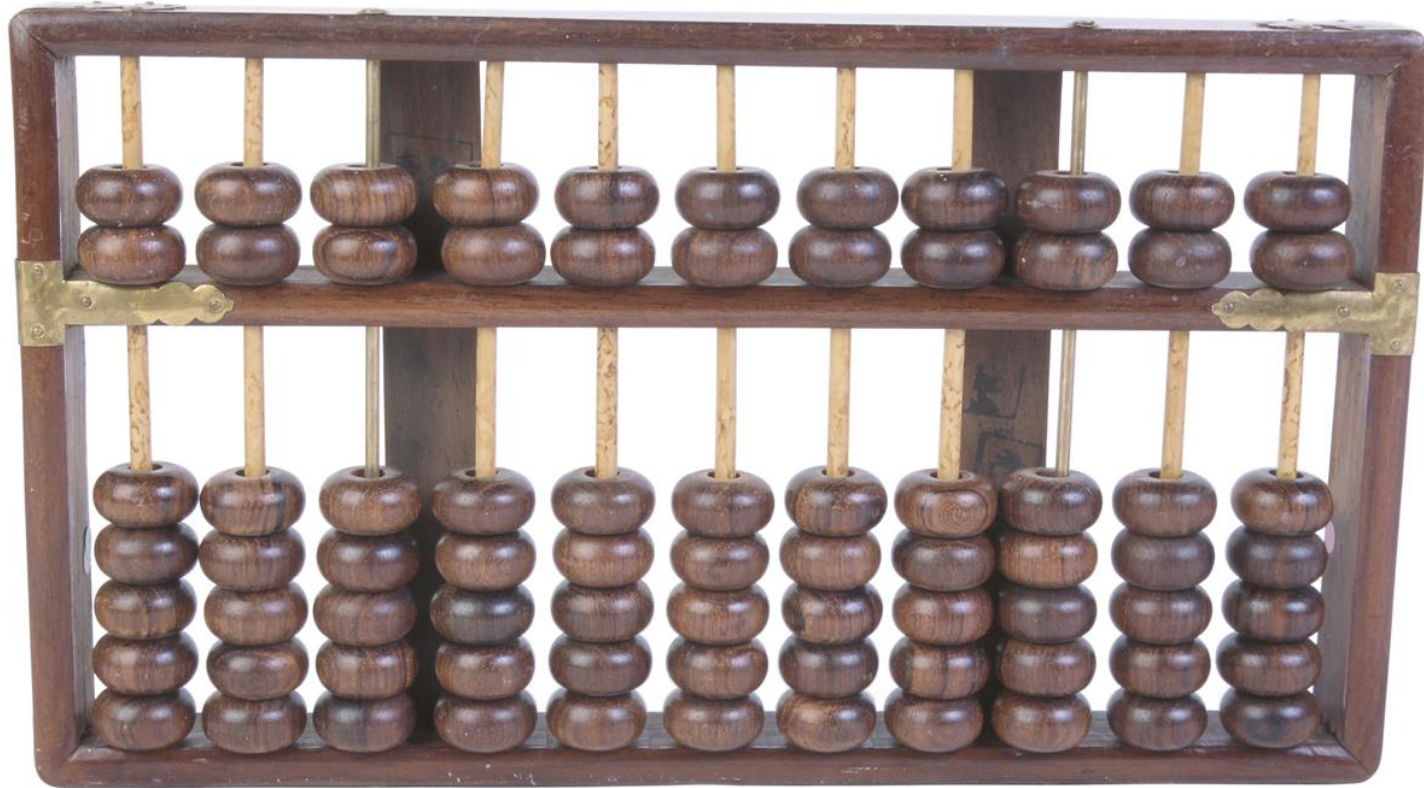
FIGURE 1: The Circular-Flow Diagram



Microeconomics – the study of how households and firms make decisions and how they interact in markets

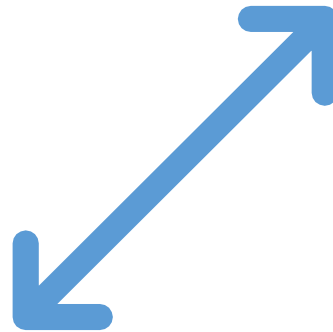
Macroeconomics – the study of economy-wide phenomena, including inflation, unemployment, and economic growth

MICRO VS MACRO, p. 20



MATH
IS
MY
FRIEND!

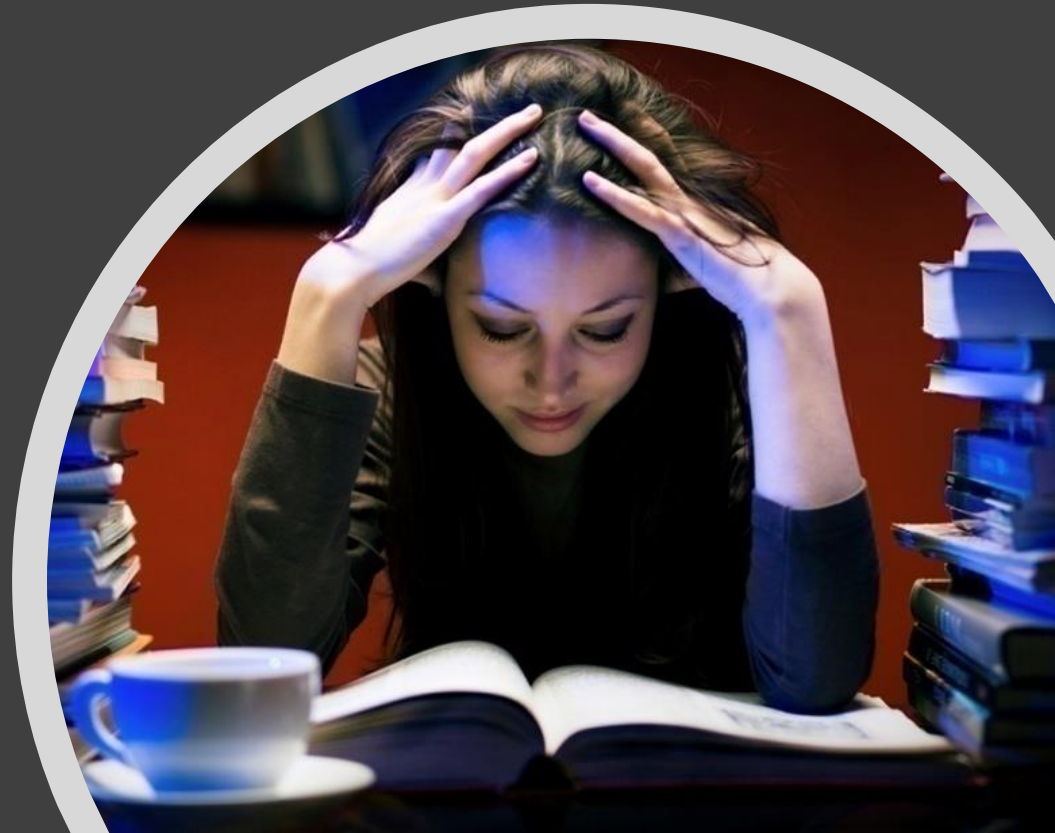
III. Review of Graphing, p. 21



- *Variables and Relationships*
- *Symbols to represent quantities*
- *Xs and Ys*
- *$Y = f(X)$ function*
- *Y: dependent variable*
- *X: independent variable*

Example

- $Y = \text{GPA}$
- $X = \text{\# of hours spent studying per week}$
- As $X \uparrow$, $Y \uparrow$
- Positive relationship



Example

- $Y = \text{GPA}$
- $X = \text{\# hours spent watching TV per week}$
- As $X \uparrow$, $Y \downarrow$
- negative or inverse relationship



- Deterministic Relationship

- Independent variable completely determines value of dependent variable

- Stochastic Relationship

- Other things besides the independent variable influence the value of the dependent variable

Graphing

let Y = Web Site Revenue

let X = # of web site hits

\$100 start up fee to advertise
10 cents per "hit"

$$Y = f(X)$$

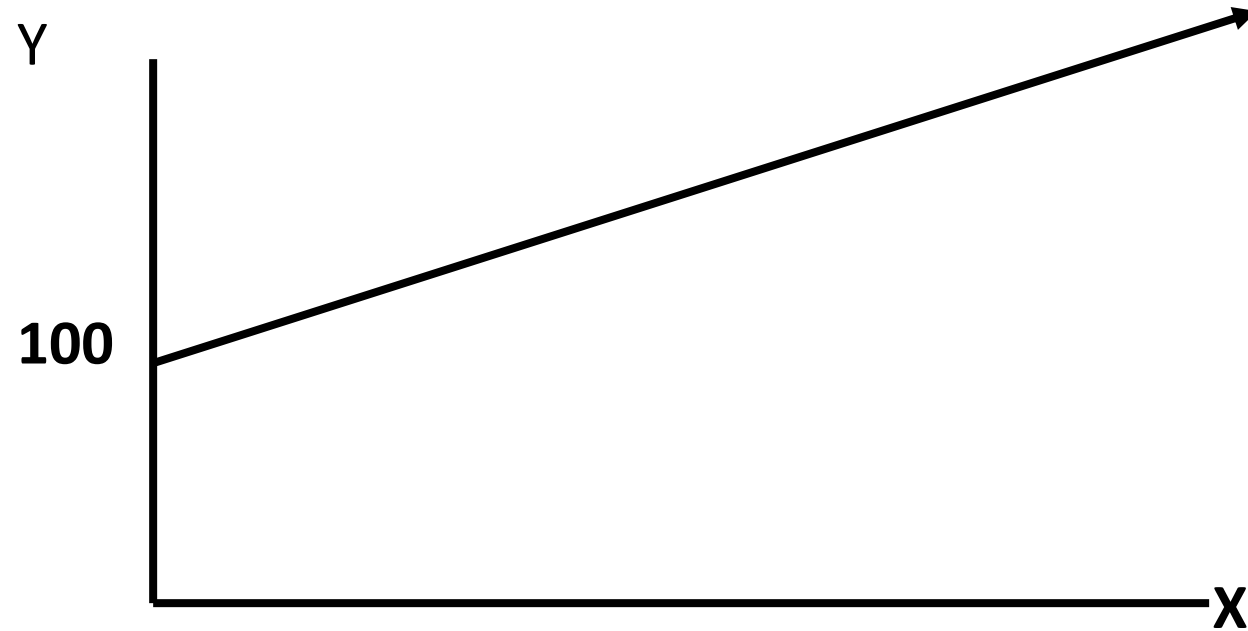
$$\underline{Y = f(X) = 100 + .1X}$$



A few points that satisfy
function:

<u>X</u>	<u>Y</u>
0	100
10	101
100	110

$$Y=100+.1X$$



Positive relationship

$$Y = 100 + .1X \quad \text{p.22}$$

$Y = a + bX$ (linear equation)

$a =$ Y-intercept term (value of Y when $X=0$)

$b =$ the slope : $\Delta Y / \Delta X = (Y_2 - Y_1) / (X_2 - X_1)$

Interpretation of slope:

As the number of web site hits increases by 1, revenue increases by .1 or ten cents.

p. 23 (KEY page 244 of packet)
Fred's Trip to Kroger:

a) Possible Combinations

Bags of Doritos (X)
5

Bottles of Pepsi Y
0



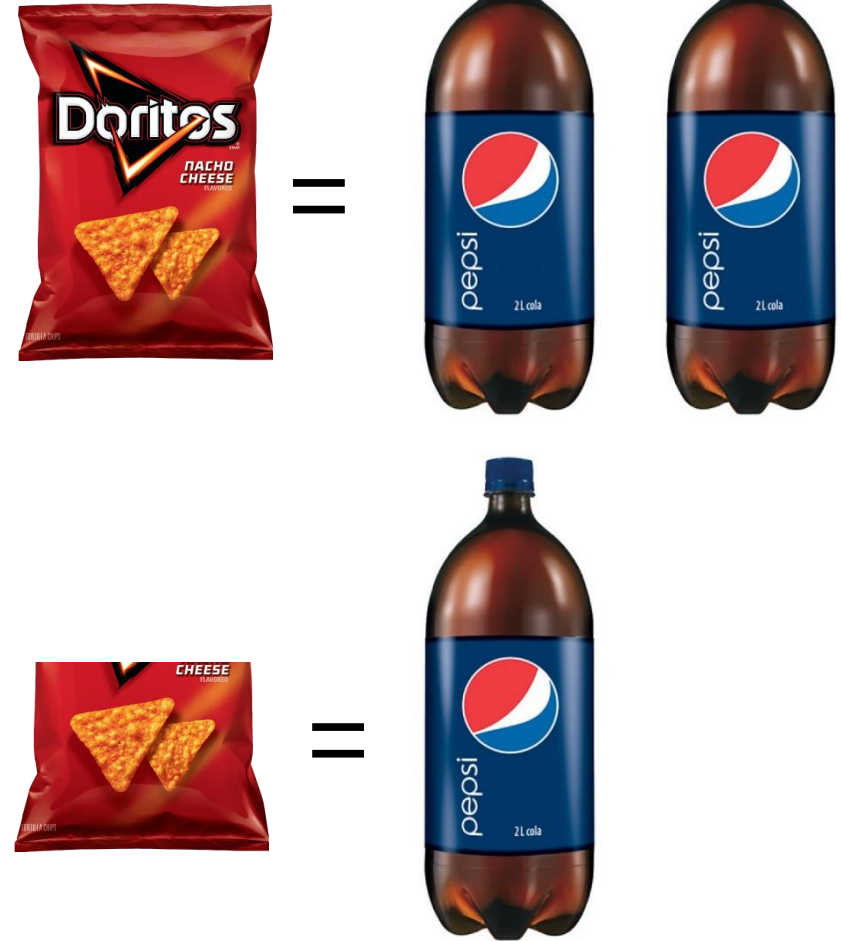
p. 23 (KEY page 244 of packet)
Fred's Trip to Kroger:

a) Possible Combinations

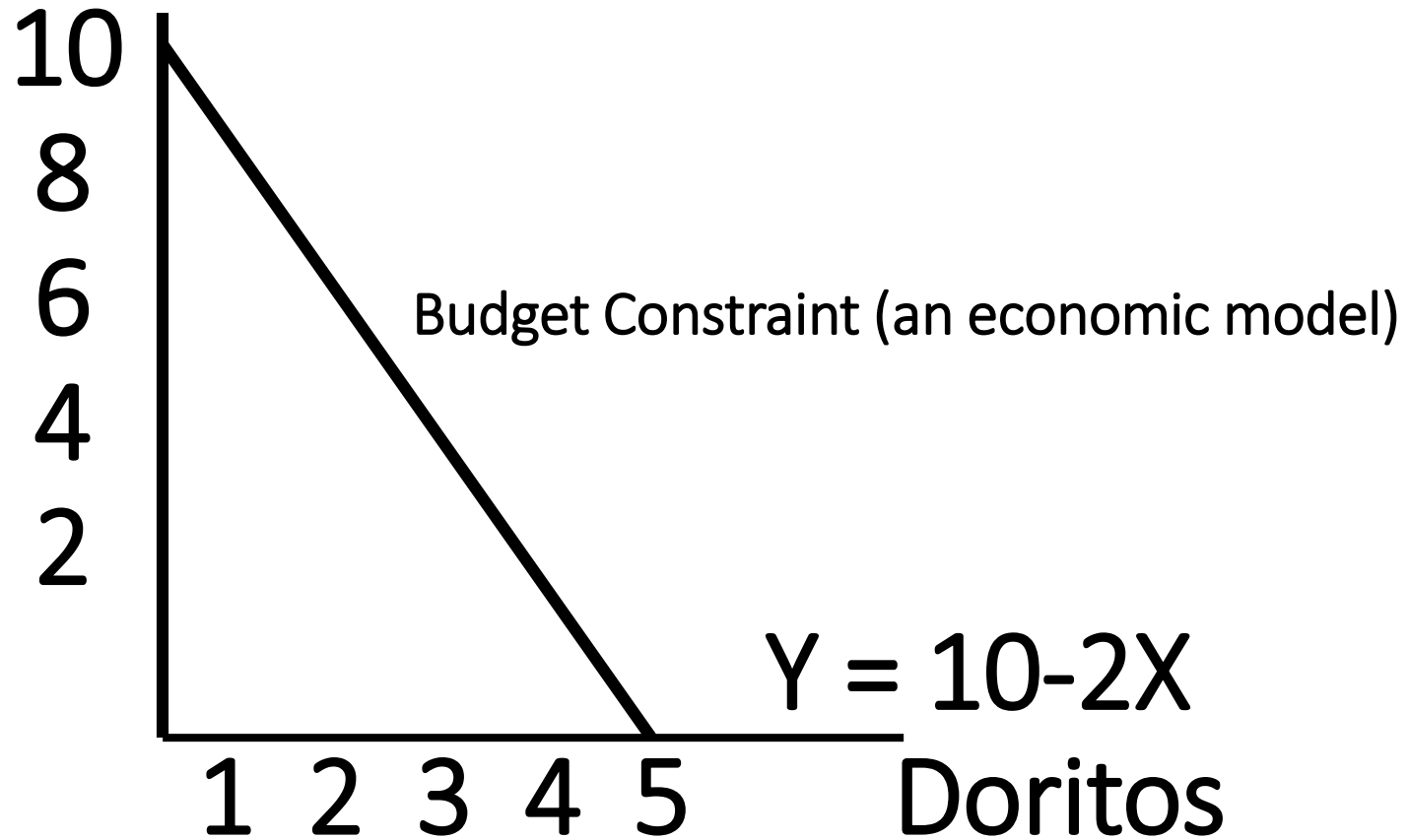
Bags of Doritos (X)	Bottles of Pepsi (Y)
5	0
4	2
3	4
2	6
1	8
0	10



- b) 1 bag Doritos =
- 1 bag Doritos = 2 bottles Pepsi
- c) 1 bottle Pepsi =
- 1 bottle Pepsi = 1/2 bag Doritos
- d) X = Doritos, Y = Pepsi
- What is the Y-intercept
- Y-intercept is 10
- e) slope = rise/run or
- $\Delta Y / \Delta X = (Y_2 - Y_1) / (X_2 - X_1)$
- LET $(X_1, Y_1) = (4, 2)$ AND $(X_2, Y_2) = (1, 8)$
- SLOPE = $(8 - 2) / (1 - 4) = 6 / -3 = -2$
- f) For each additional bag of Doritos
- he buys, he forfeits buying 2 bottles of Pepsi.
- g) linear equation $Y = 10 - 2X$

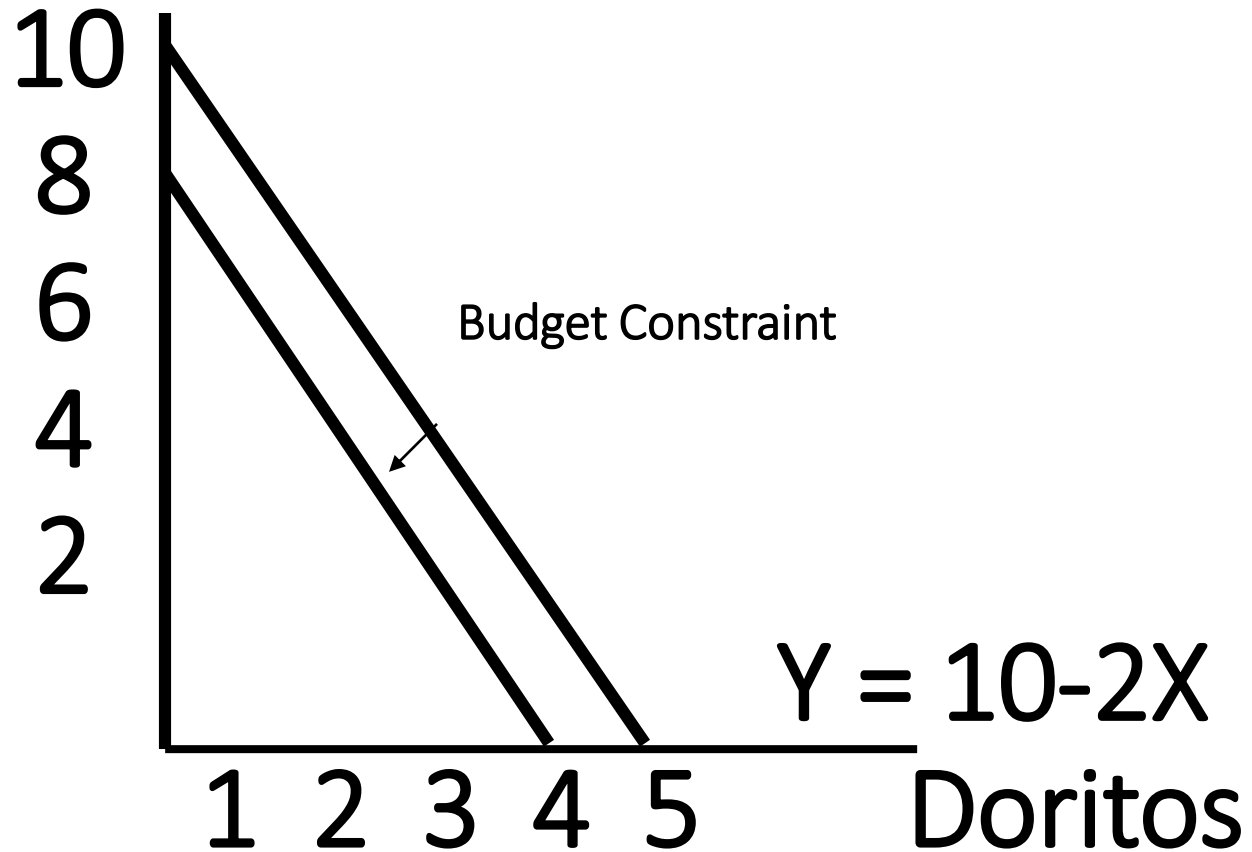


h) Pepsi



h) Pepsi

If he loses \$2





Reef Polling Quiz #4
(in-class quiz #4)



1) Which ONE of the following IS most likely an example of a DETERMINISTIC relationship?

- A. The speed at which a car is travelling and the distance it can cover in a set amount of time
- B. Number of years of studying a foreign language and proficiency in speaking that language
- C. Number of hours spent working out each week and a person's weight
- D. Temperature in degrees Fahrenheit on a given day and the number of inches of snowfall on that day

2) Suppose that a new online digital movie service called Silver Screen has just entered the industry. For their services they charge a monthly fee of \$3.50 and an additional 25 cents for each movie you watch in a month. Which of the following equations best reflects the relationship between the total numbers of movies you watch in a month (M) and your total monthly bill paid to Silver Screen (T)?

A. $T = 3.50 + 25M$

B. $T = .25 + 3.50M$

C. $T = 3.50 + .25M$

D. $T = 3.50 - .25M$

IV. Potential Pitfalls, p. 25

- Ceteris Paribus Condition – Holding all else constant
 - Omitted Variable Problem occurs when we violate ceteris paribus condition
 - Confounding Effects
- Relationship between
 - Y: worker drug use
 - X: intensity workplace drug testing
 - Z: city and state level drug enforcement

Correlation is
not always
causation,
p. 25

Less Homework, Higher Scores

A new paper has found that world-wide, students with more homework often have lower math scores. Below, data from 2003 for the U.S., plus countries with the highest and lowest percentages of students who studied more than four hours a night.

COUNTRY	4 HRS + OF HOMEWORK PER NIGHT	MEAN MATH SCORE	COUNTRY	4 HRS + OF HOMEWORK PER NIGHT	MEAN MATH SCORE
Lebanon	24%	434	United States	5%	504
Armenia	23%	478	England	3%	498
Romania	22%	474	Morocco	3%	387
South Africa	22%	266	Netherlands	3%	536
Tunisia	20%	411	Scotland	2%	498
Moldova	19%	459	Korea	1%	587
Jordan	19%	424	Japan	1%	569

Source: Gerald K. LeTendre & Motoko Akiba. "A Nation Spins its Wheels: The Role of Homework and National Homework Policies in National Student Achievement Levels in Math and Science," 2007. Mean scores ranged from 266 to 605.



Reef Polling Quiz #4
(in-class quiz #4)





Have you ever broken or
fractured a bone?

A. YES

B. NO

Reverse Causality



- R: rainfall in Lexington on a given day
- B: # female students on campus wearing tall rubber rain boots
- Does B cause A?
- Correlation?