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ECON 101 (Trost)

TA Session Worksheet, Module 1 (Intro)

Name:_____ Date:_____

Part 1: Economic Thinking

1. What's the opportunity cost (for you) of attending today's TA session?

2. Describe a time you didn't ignore sunk costs (or make one up!).

3. Donuts cost $0.60. The first donut gives you $2 worth of benefit. Each following donut gives you half as much benefit as the previous one. How many donuts should you buy?

4. In your group, come up with a good example of one of the economic "mistakes" we talked about. (unintended consequences, confusing association with causation, fallacy of composition, sample selection bias).

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Part 2: Math

5.

a. Suppose you know that the two points (X, Y) = (12, 6) and (15, 2) sit on the same line. From this information write an equation for this line in slope-intercept form (drawing might help!).

b. Suppose that you know that the slope of the line is 2 and that this line also contains the point (15, 35). What is the y-intercept for this line? Show your work.

c. You are given the following two equations:
$Y = 2X + 100$
$Y = 76 – 10X$
Find the solution (X, Y) for where these two equations intersect. Show your work.

CHALLENGE ROUND – ONLY DO IF YOU HAVE EXTRA TIME!!

d. Suppose that you know that the relationship between X and Y, where X is the variable measured on the horizontal axis, can be described by the following equation:
$X = 30 - 2Y$ for all values of $X \geq 0$
You are then told that for every Y value the X value has now increased by 5 units. Write the equation in slope-intercept form for this new line. Show your work. Hint: you might find it helpful to draw a "sketch" illustrating these two lines before you start doing your calculations.

e. Suppose that you know that the relationship between X and Y, where X is the variable measured on the horizontal axis, can be described by the following equation:
$Y = 5 + 2X$ for all values of $X \geq 0$
You are then told that for every X value the Y value has now decreased by 2 units. Write the equation in slope-intercept form for this new line. Show your work. Hint: you might find it helpful to draw a "sketch" illustrating these two lines before you start doing your calculations.