Monmouth COLLEGE

- Name: _____
- Date: _____
- Section: _____

# ECON 300: Intermediate Price Theory

# Quiz #2

# Fall 2024

**INSTRUCTIONS:**

- Please read all questions carefully before you begin answering.
- Answer all questions in the spaces provided on the question sheet.
- This quiz consists of 5 pages, including this one. There are a total of 4 problems with a total of 14 subquestions.
- This is a closed-book quiz. Please remove all materials from the top of the desk and take any necessary items from your bags before the exam begins.
- The recovery rate for this quiz is 50%.

**Problem 1. Definitions** **(5 Points Each)**

Select FOUR items on the list of items below, and provide a definition of the items that you chose.

- Utility Functions
- Rational Preferences
- Marginal Utility
- Marginal Rate of Substitution
- Ordinal Utility
- Convex Preferences

1.A. Item #1: _____

1.B. Item #2: _____

1.C. Item #3: _____

1.D. Item #4: _____

**Problem 2. True / False** **(5 Points Each)**

Determine whether the following statements are either `TRUE` or `FALSE`. If you deem that the statement is `TRUE`, there is no need to justify your answer. If you deem that the statement is `FALSE`, you MUST justify your verdict by providing an explanation.

2.A. If a consumer with a utility function $u(\cdot)$ reports that $u(X) = 100$ and $u(Y) = 500$, this means that the consumer likes bundle $Y$ five times more than they like bundle $X$.

2.B. If a consumer reports that $X \succ Y$, and $Y \succ Z$, we assume that $X \succ Z$.

2.C. Accoding to the Law of Diminishing Marginal Utility, we assume that a consumer's 2$^{\text{nd}}$ cup of coffee grants them lower marginal utility than their 3$^{\text{rd}}$ cup of coffee.

2.D. When two goods are perfect complements, the "Cobb-Douglas" family of functions should be used to model their preferences.

**Problem 3. Plotting the Indifference Curve** **(10 Points Each)**

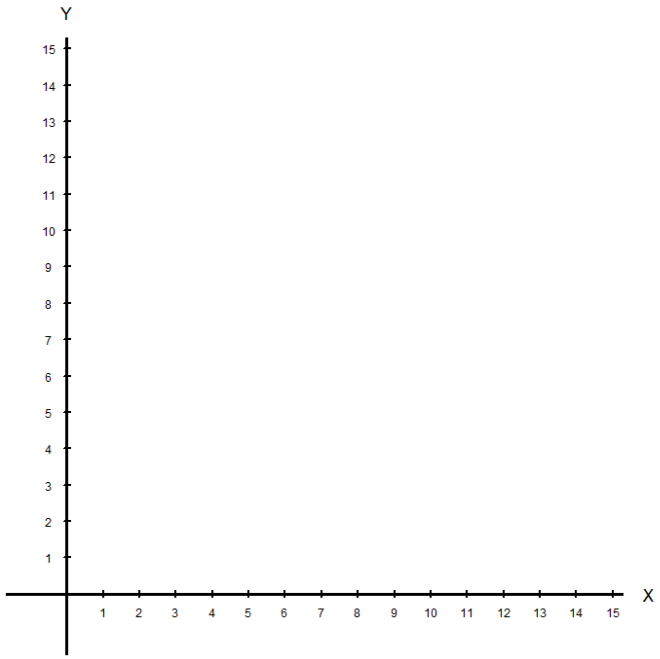
Suppose that a consumer is participating in a market with two goods: good $x$ and good $y$. The consumer's utility function $u(\cdot)$ is given as follows:

$$u(x, y) = 2xy$$

3.A. Find 4 bundles of $(x, y)$ where the consumer's utility is exactly 12.

3.B. Find 6 bundles of $(x, y)$ where the consumer's utility is exactly 24.

3.C. In the empty chart below, plot your answers of `3.A` and `3.B`, and roughly plot and label the indifference curves representing the utility level 12 and 24, respectively.



**Problem 4. Interpreting the Indifference Curve** **(10 Points Each)**

4.A. Explain why an indifference curve further away from the origin represent a greater level of utility.

4.B. What does the slope of the indifference curve tell you, and why do we care about it?

4.C. Explain why typical indifference curves tend to "bulge inward" towards the origin.

- Original Score: _____
- Recovered Score: _____
- Original Date: _____
- Recovered Date: _____