Workout Book Problems:

6.1,6.3,6.7,8.1,8.10

1. A consumer has utility function $x_1 x_2$.

A) What is the consumers demand for x_1 and x_2 as a function of prices and income.

B) Plot the **demand curve for** x_1 when $p_2 = 2$ and $m = 100$.

C) For $p_1 = 1$ and $p_2 = 2$ sketch the **Engel curve for** x_1.

D) For $p_1 = 1$ and $p_2 = 2$ sketch the **Income Offer Curve**.

E) For $m = 100$ sketch the **price offer curve** for p_1.

2. A consumer has utility function $u(x_1, x_2) = 2x_1 + x_2$.

A. What is the consumer's demand for x_1 and x_2 when $m = 1200$ and $p_1 = 100$ and $p_2 = 100$?

B. Draw the consumer's budget line for these prices and income **and mark demand** from part A.

C. The price of x_1 increases to $p_1 = 300$. On the graph from part B, **draw the new budget line**.

D. What is the new demand for x_1 and x_2 with $p_1 = 300$. Mark this point on your graph.

E. Draw a third budget line on your graph from part B which will allow you to determine substitution and income effects for the change in demand for x_1 after the price change. What is the income and prices on this budget line?

F. What bundle of x_1 and x_2 does the consumer demand under the budget from part E? *Label this on your graph.*

G. How much of the consumer's change in demand for x_1 between part A and part C is due to **substitution effect**?

H. How much of the consumer's change in demand for x_1 between part A and part C is due to **income effect**?

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