Unit 3 Quiz B

Randomly select 3 questions to ask members of the group requesting the next set of assignments. If they get all questions correct, give them the entire stack of quizzes and assignments so that they can quiz the next group. If they get any question wrong, send them back to their seats to review and then try again in 10 minutes or more.

1. A boutique coffee shop raises its prices from \$4 to \$6 per cup. According to the law of demand, what would you expect to happen? What kinds of consumers would stop buying the coffee?

   Answer: Fewer consumers buy the coffee, particularly those who value coffee less or have many close substitutes (consumers with time to drive to other coffee shops; consumers who like tea just as much).

2. For a demand curve $P = 100 - Q$, if the price is \$75, calculate the quantity demanded.

   Answer:

$$P = 100 - Q \tag{1}$$
$$75 = 100 - Q \tag{2}$$
$$Q = 25 \tag{3}$$

3. Write down the budget constraint as a function of the prices of goods 1 and 2, the amount of goods 1 and 2 the consumer purchases, and the consumer's income.

   Answer: $p_1 x_1 + p_2 x_2 = m$

4. Find the slope of the budget constraint from question 3, assuming x_1 is drawn on the x-axis and x_2 is drawn on the y-axis.

   Answer: $\frac{-p_1}{p_2}$

5. Your Marginal Rate of Substitution (MRS) between goods X and Y is 4. This means you'd be indifferent between getting _____ more units of good X or _____ more units of good Y.

   Answer: MRS is the slope of the indifference curve (rise/run). So MRS = 4 = 4/1: you'd be indifferent between getting 1 more unit of X or 4 more units of Y.

6. Is $u(x_1, x_2) + 5$ a monotonic transformation of $u(x_1, x_2)$?

   Answer: yes: adding 5 maintains the ordering.