- 1. Derive ordinary demand for x1 and x2 for a consumer whose utility function is $U(x_1, x_2) = x_1 x_2^2$.
- Derive ordinary demand for x1 and x2 for a consumer whose utility function is of the following form:
 U = min {aX₁, bX₂}
 U = aX₁ + bX₂
- At a boundary optimum, a consumer's indifference curve must be tangent to her budget line.
 a. T/F
- 4. Max Gross has the utility function U(x, y) = max {x, y}. If the price of x is the same as the price of y, Max will buy equal amounts of x and y.
 a. T/F
- If a consumer does not have convex preferences, then a point of tangency between her indifference curve and her budget line must be an optimal consumption point.
 a. T/F
- 6. Clara's utility function is U(x, y) = (x + 2)(y + 1). If her consumption of both x and y are doubled, then her marginal rate of substitution between x and y remains constant.
 a. T/F
- 7. Charlie's utility function is U(x, y) = xy². His marginal rate of substitution between x and y does not change if the amount of both goods doubles.
 a. T/F
- 8. Max has a utility function U(x, y) = 2xy + 1. The prices of x and y are both \$1 and Max has an of \$20.
 - a. How much of each good will he demand?
 - b. A tax is placed on x so that x now costs Max \$2 while his income and the price of y stay the same. How much of good x does he now demand?Would Max be as well off as he was before the tax if when the tax was imposed, his income rose by an amount equal to \$1 times the answer to part (b)?