

1. Ambrose's brother Bartholomew has a utility function $U(x_1, x_2) = 40x_1^{1/2} + x_2$, where x_1 is his consumption of nuts and x_2 is his consumption of berries. His income is \$115, the price of nuts is \$5, and the price of berries is \$1. How many units of *berries* will Bartholomew demand?

2. If preferences are quasilinear, then for very high incomes the income offer curve is a straight line parallel to one of the axes.

T/F

3. Darlene's utility function is $U(x, y, z) = x^3 y^7 z$. If her income doubles and prices remain unchanged, her demand for good y will more than double.

T/F

4. Wanda Lott's utility function is $U(x, y) = \max\{2x, y\}$. Draw some of Wanda's indifference curves. If the price of x is 1, the price of y is p , and her income is m , how much of y does Wanda demand?

5. Martha has the utility function $U = \min\{4x, 2y\}$. Write down her demand function for x as a function of the variables m , p_x , and p_y , where m is income, p_x is the price of x , and p_y is the price of y .

6. Derek has the utility function $U = x^2 + y^2$, $p_x=4$ and $p_y=1$, his income is 81 zł. How many units of x and y will he demand?