Study Question—Utility, question 2

1. Yolanda has utility function $U = X^{.6}Y^{.4}$. She has $200 to spend. Y cost $1 each; X cost $2 each.
Calculate:
a) Yolanda's utility-maximizing demand for X and Y
b) Yolanda's marginal rate of substitution at her utility-maximizing point.
c) Three points (price, quantity) on Yolanda's demand curve for Y

1. a) X = .6(200)/2 = 60 Y = .4(200)/1 = 80

b) MRS = P_y/P_x at utility-maximizing point, so MRS = ½ = .5

c) One point we already have: at Py = 1, Y = 80
Another point: at Py = $2, Y = .4(200)/2 = 40
Another point: at Py = $3, Y = .4(200)/3 = 26.66667