Answer on question #72034, Economics / Microeconomics

I. U=(x y)=x^(1/3)y^(2/3) that subjected to budget constant 6x+3y=720 then find

1. Mux

Mux = U'=(x y)=(1\3)x^(-2/3)y^(2/3)

2. MUy

Muy = U'=(x y)=(2\3)x^(1/3)y^(-1/3)

3. MRSx,y

$$MRS_{xy} = MU_x / MU_y$$

MRSx,y =(1\3)x^(-2/3)y^(2/3) : (2\3)x^(1/3)y^(-1/3) = y/2x

4.write equilibrium optimum condition:

(1\3)x^(-2/3)y^(2/3) /6 =(2\3)x^(1/3)y^(-1/3)/3

6x+3y=720

II. Assume u function of a consumers is u=x^(2) + y^(2) then, Required.

1. MRSy,x

Mux = 2x

Muy = 2y

MRSy,x = Muy/ Mux = 2y/2x = y/x

III. a consumers u function give as u=x^(4) y^(-2)

1. Mux = 4x^(3) y^(-2)

2. MUy =-2 x^(4) y^(-3)

3. MRSx,y = 4x^(3) y^(-2) : (-2) x^(4) y^(-3) = -2y/x