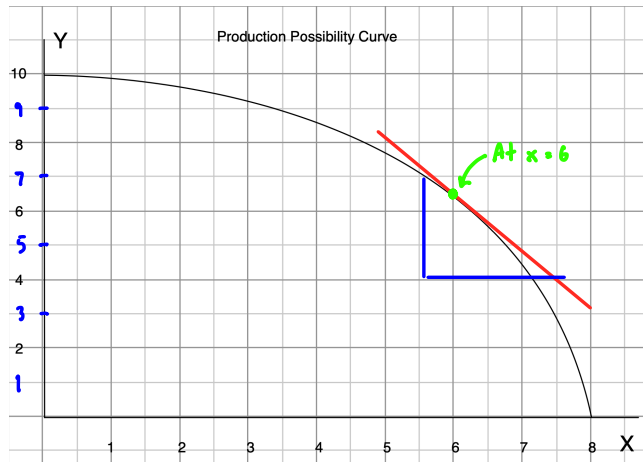


HW 2 Due Thursday, February 4, 2021

1. Nonlinear PPC

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(304641456)



a) Find the opportunity cost of each additional unit of y in terms of units of x

y	x	Opp. Cost of y
0	8	
1	7.9	0.1
2	7.6	0.3
3	7.4	0.2
4	7.2	0.2
5	6.75	0.45
6	6.25	0.5
7	5.5	0.75
8	4.75	0.75
9	3.5	1.25
10	0	3.5

b) Yes, it is.

c) the opportunity cost per unit of y when $x = 6$

$$\therefore \frac{\Delta x}{\Delta y} = \frac{2}{3} = 0.67 \text{ (negative graph)} \\ = -0.67$$

d) at $x = 6$

$$\text{approx } \Delta x = \text{slope} \cdot \Delta y \\ = -0.67 \cdot -0.2 \\ = 0.134$$

$\therefore$ approximate x can produce 0.134 more when y less by 0.2 units

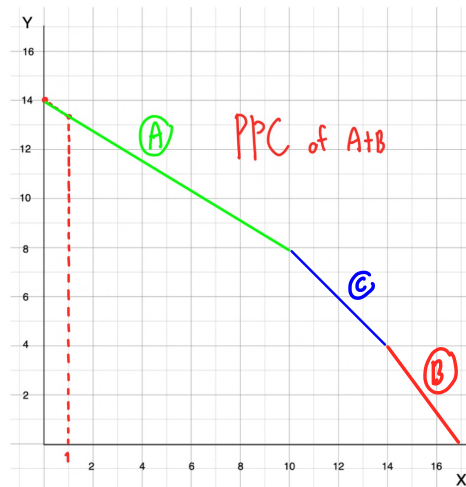
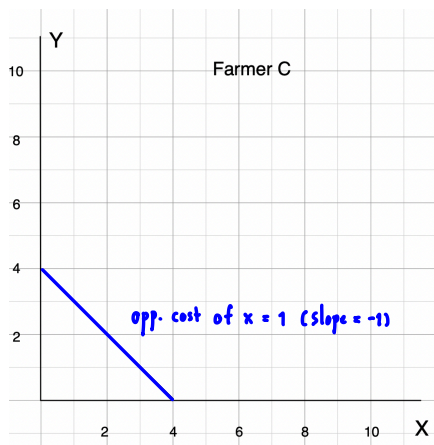
b) Is the opportunity cost of y increasing?

c) Compute the opportunity cost per unit of y when $x = 6$.

d) At $x = 6$, approximate how much more x can be produced if we have y less by 0.2 units.

approx Δx

2. Farmer C has the PPC given below. Find the PPC of all three farmers A, B and C combined.



slope $A > C > B$
 $-0.67 > -1 > -1.33$