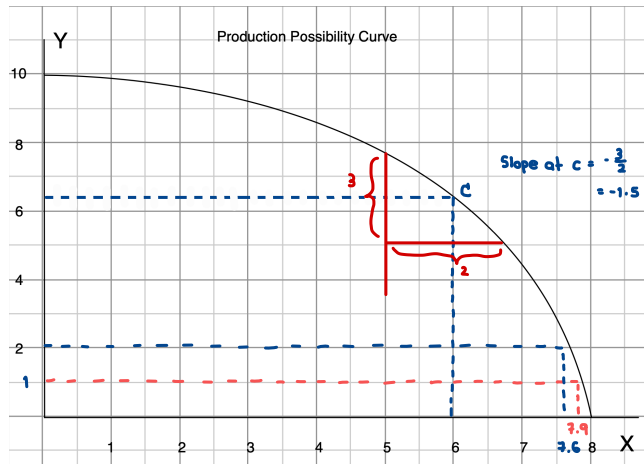


HW 2 Due Thursday, February 4, 2021

1. Nonlinear PPC



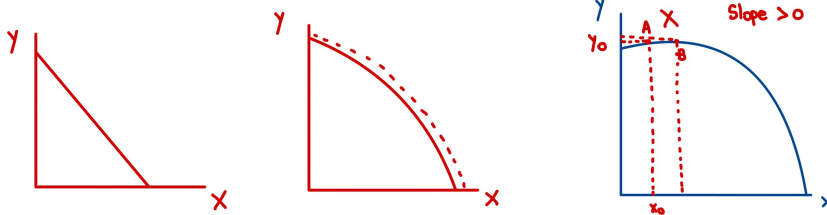
a) Find the opportunity cost of each additional unit of y in terms of units of x

y	x	Opp. Cost of y
0	8	} = 0.1 Less of x
1	7.9	
2	7.6	} = 0.3 Less of x
3	7.4	
4	7.1	} = 0.3 "_____"
5	6.7	
6	6.3	} = 0.4 "_____"
7	5.6	
8	4.7	} = 0.9 "_____"
9	3.4	
10	0	} = 3.4 "_____"

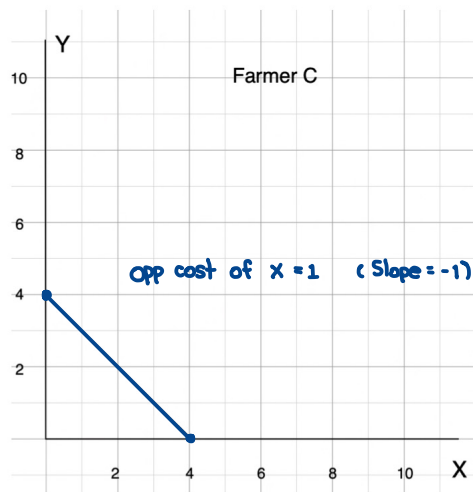
- b) Is the opportunity cost of y increasing? Yes $\frac{1}{-1.5} \approx -\frac{2}{3}$
- c) Compute the opportunity cost per unit of y when $x = 6$. ≈ -0.67 opp cost of y
- d) At $x = 6$, approximate how much more x can be produced if we have y less by 0.2 units.

$$\Delta x \approx \frac{\Delta y}{\text{Slope at } c} \approx \frac{-0.2}{-1.5} \approx 0.13 \quad 0.13 \text{ unit more of } x$$

Can a PPC have positive slope?



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



X	Y
0	18
1	17.4
"—"	"—"
10	12
11	11
"—"	"—"
14	8
15	6.67
"—"	"—"
20	0.02

ppc of farmer A, B, C

