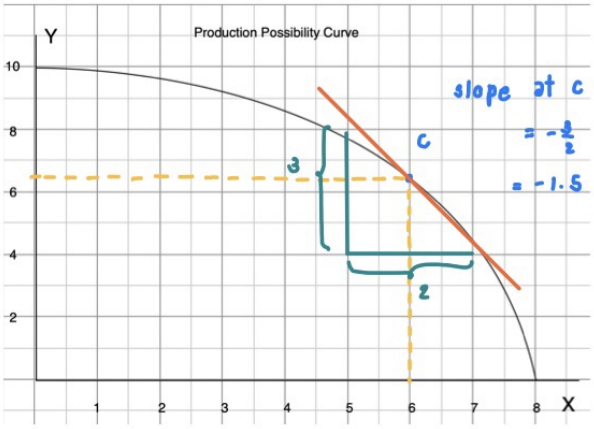
HW Nonlinear PPC



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	
1	7.9	0.1 less of x
2	7.7	0.2 less of x
3	7.4	0.3
4	7.1	0.3
5	6.7	0.4
6	6.3	0.4
7	5.6	0.7
8	4.7	0.9
9	3.4	1.3
10	0	3.4

when y increases 1 unit at a time

b) Is the opportunity cost of y increasing? yes

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

c.) $\frac{1}{-1.5} \approx -\frac{2}{3}$

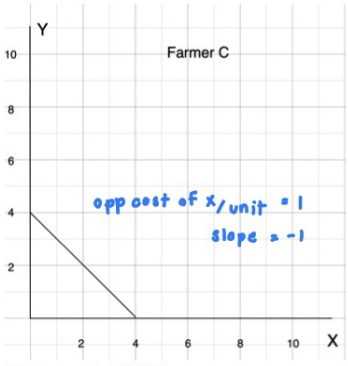
≈ -0.67 opp cost of y

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

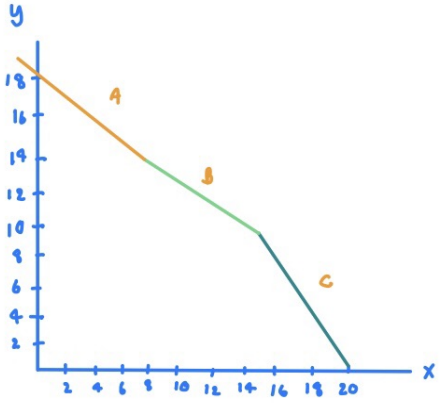
d.) if $\Delta y = -0.2$

$\Delta x \approx \frac{\Delta y}{\text{slope at C}} \approx \frac{-0.2}{-1.5} \approx 0.13$

HW 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	A
⋮	⋮	
10	12	
11	11	
⋮	⋮	B
14	8	
15	6.67	
⋮	⋮	C
20	0.02	



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