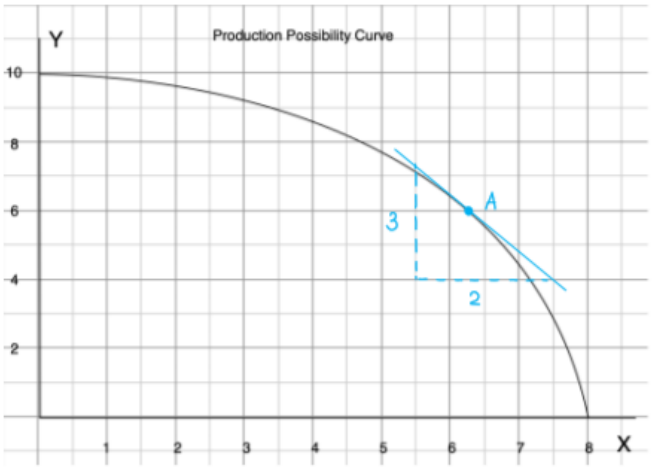
6304640961 Patararada

HW Nonlinear PPC



slope at A = $-\frac{3}{2}$ = −1.5

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	7.7	0.2
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	1.3
9	3.4	1.3
10	0	3.4

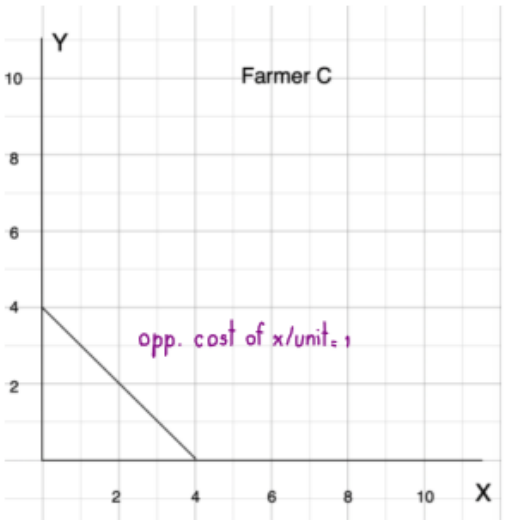
when y increases 1 unit at a time

b) Is the opportunity cost of y increasing? Yes

c) Compute the opportunity cost per unit of y when $x = 6$. At x=6, opp. cost of y = $\frac{1}{\text{slope}} = \frac{1}{-1.5} = -0.67$ units of x per unit change of y

d) At $x = 6$, approximate how much more x can be produced if we have y less by 0.2 units. $\Delta x \approx$ opp. cost per unit of y · Δy
$\Delta x = -0.67 \cdot -0.2$
$= 0.134$

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



Y Fish