Assignment - 1

Ans. to the ques. no - 1

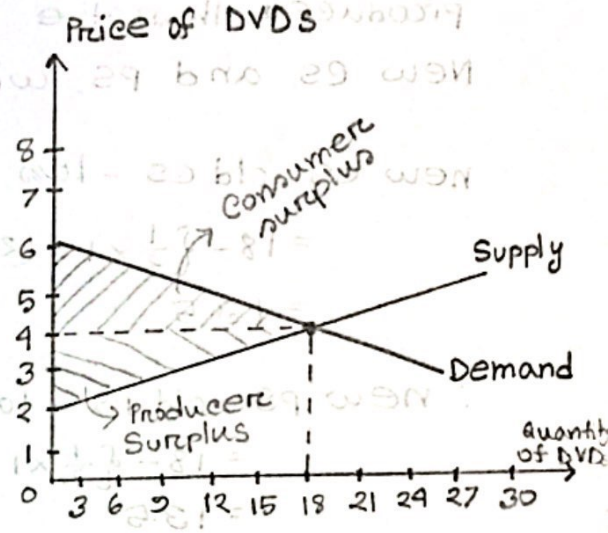
a) ∴ Consumer surplus,

$= \frac{1}{2} \times 18 \times (6-4)$

$= 18$

∴ Producer surplus, $= \frac{1}{2} \times 18 \times (4-2)$

$= 18$



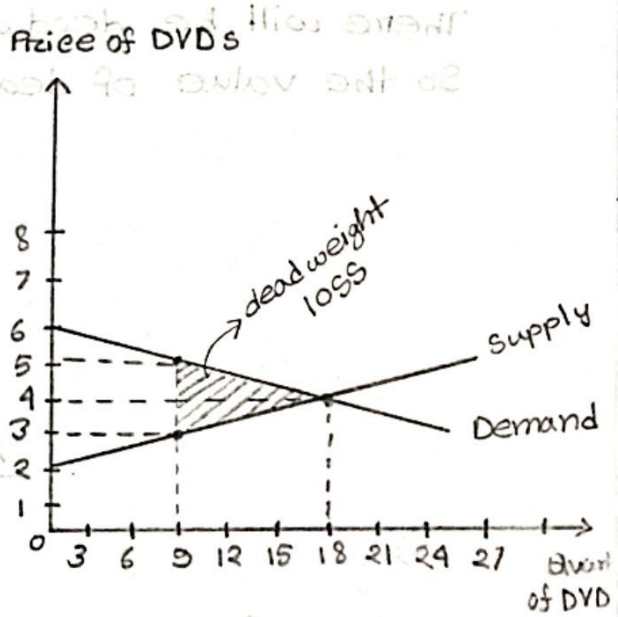
b) If the production of the DVDs become 9 million the new CS and PS will be,

∴ new CS $= 18 - \{\frac{1}{2} \times (5-4) \times (18-9)\}$

$= 13.5$

∴ new PS $= 18 - \{\frac{1}{2} \times (4-3) \times (18-9)\}$

$= 13.5$



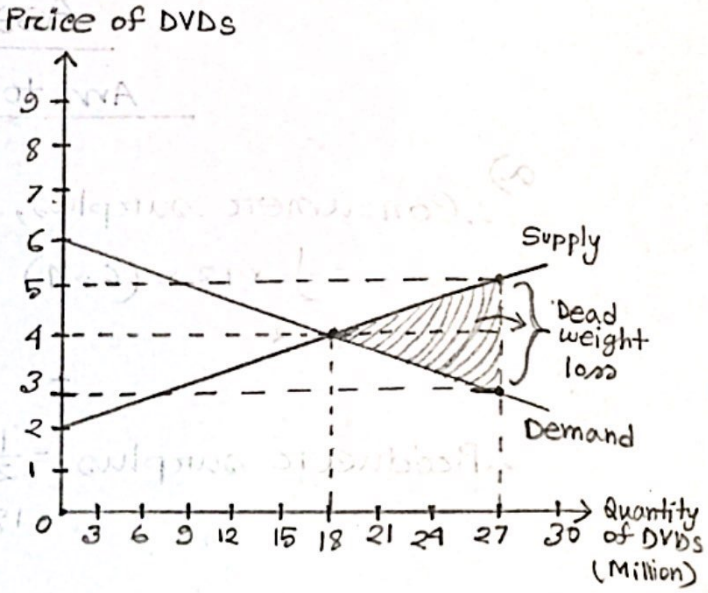
If underproduction occur in the market then CS and PS will decrease.

∴ The value of dead weight loss $= (4.5 + 4.5)$

$= 9$

c)

If overproduction occurs in the market and 27 million DVDs are produced than the value of New cs and ps will be



new cs = old cs − loss in cs

$= 18 - \{\frac{1}{2} \times 1 \times (27-18)\}$

$= 13.5$

∴ new ps = old ps − loss in ps

$= 18 - \{\frac{1}{2} \times 1 \times (27-18)\}$

$= 13.5$

There will be dead weight loss.

So the value of dead weight loss $= \{\frac{1}{2} \times 1 \times (27-18)\} + \{\frac{1}{2} \times 1 \times (27-18)\}$

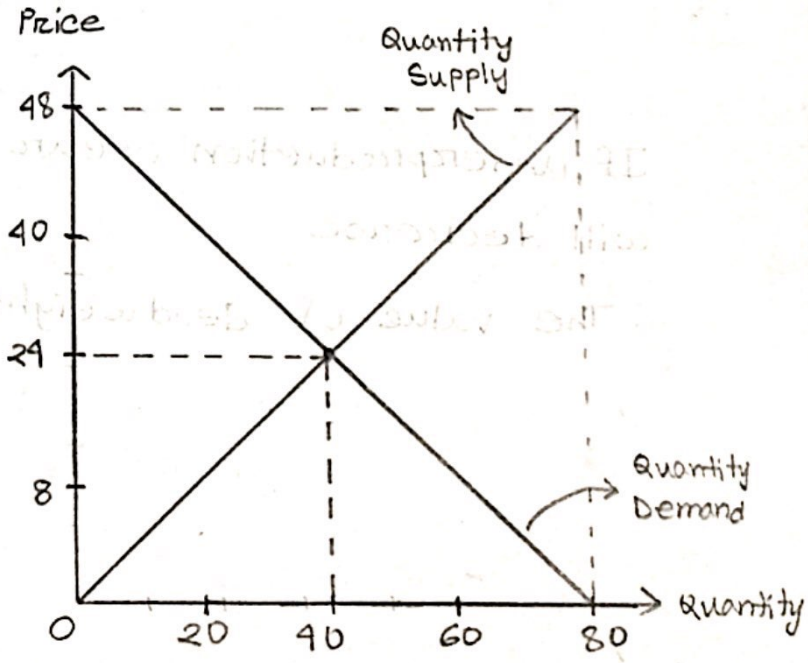
$= 9$

(Ans)

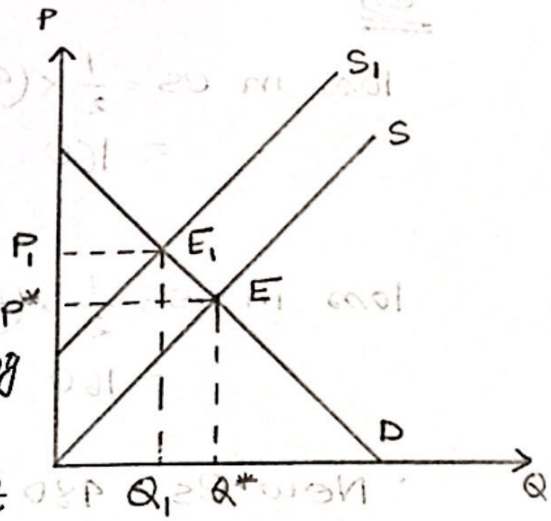
Ans. to the ques. no-2

a)

Here, from the graph we see that, the equilibrium price is 24 and the equilibrium quantity is 40.

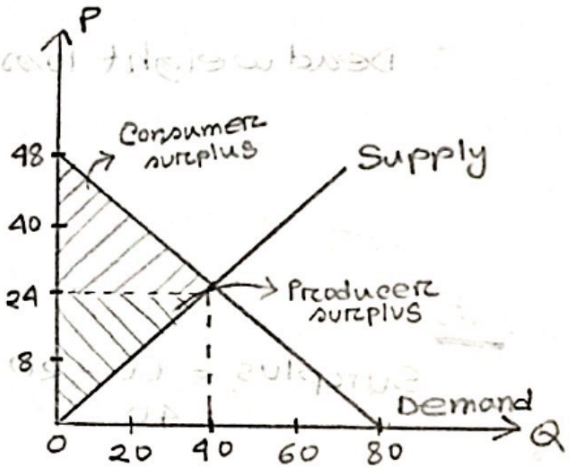


b) We know if production cost increases then supply curve shift to the left. From the graph we can see that if the supply curve shifted to the left the equilibrium price is increasing and equilibrium quantity is decreasing. So, the given statement is false.



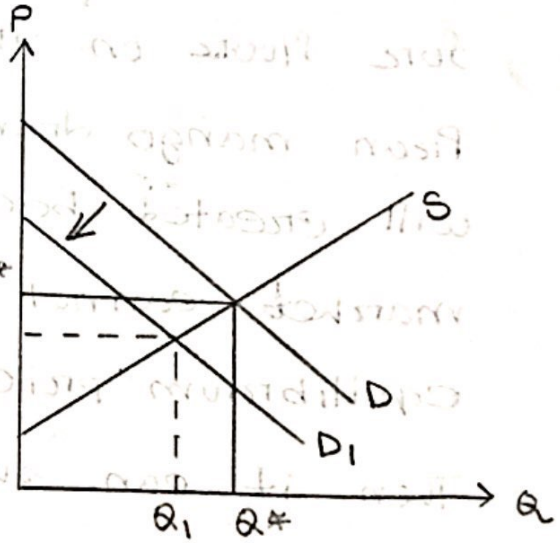
c) $\therefore$ Consumer surplus $= \frac{1}{2} \times 24 \times 40$
$= 480$

$\therefore$ Producer surplus $= \frac{1}{2} \times 24 \times 40$
$= 480$



d)

If the news was published, then the people will avoid pran mango juice because of the health conciousness. As a result the demand will decrease and as per the graph the price and quantity will also decrease and demand curve will shifted to left.



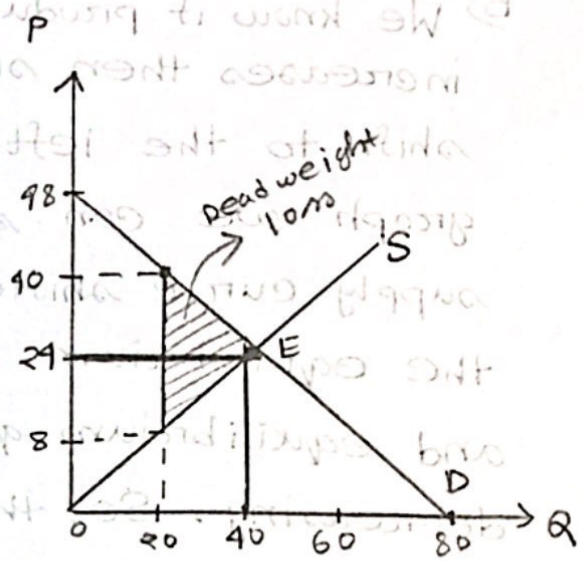
e)

loss in CS $= \frac{1}{2} \times (90-20) \times (90-29)$

$= 160$

loss in PS $= \frac{1}{2} \times (90-28) \times (29-8)$

$= 160$



∴ New CS $= 480 + 160$

$= 320$

∴ New PS $= 480 - 160$

$= 320$

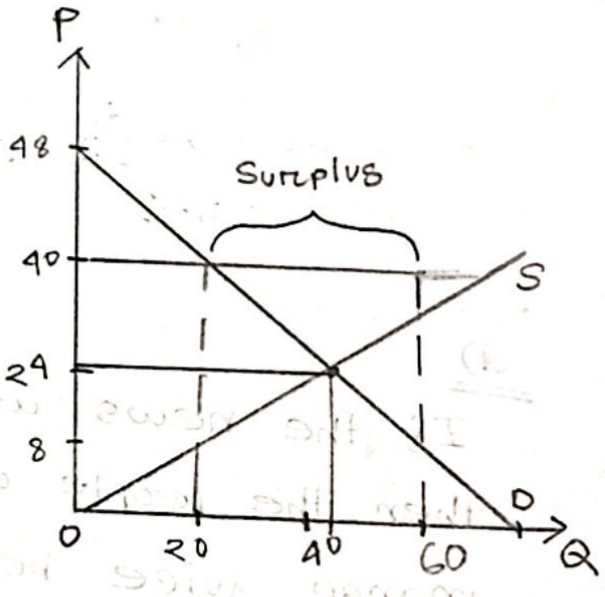
∴ Dead weight loss $= 160 + 160$

$= 320$

f)

Surplus $= 60 - 20$

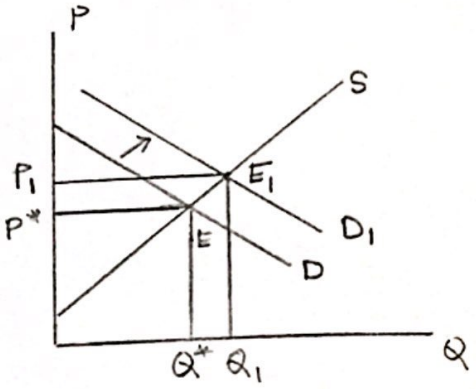
$= 40$



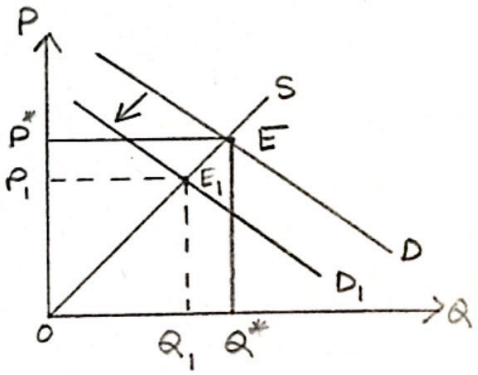
If the government decides to impose 40 taka as a price for floor on the price of Pran mango drink then surplus will created because then the market can not come to the equilibrium price and the price will increase. Then it can supply 60 mango drink where the demand is only 20.

Ans. to the ques. no-3

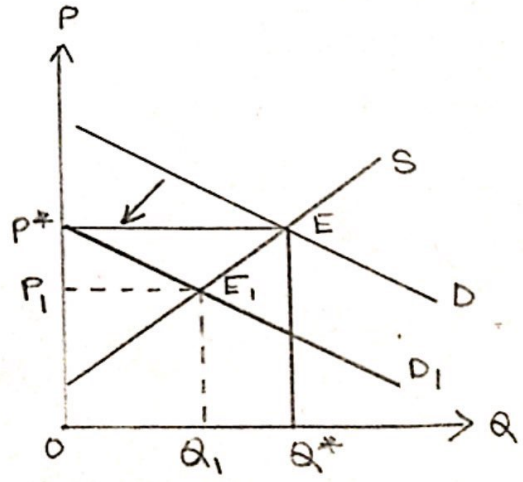
a) In this case, the demand for ham-burgers will increases because hamburgers and tacos are close substitude. So if the price of tacos will increases people will eat hamburger instead of tacos. because of the price.. So increasing the demand for hamburger shifting the demand curve to the right.



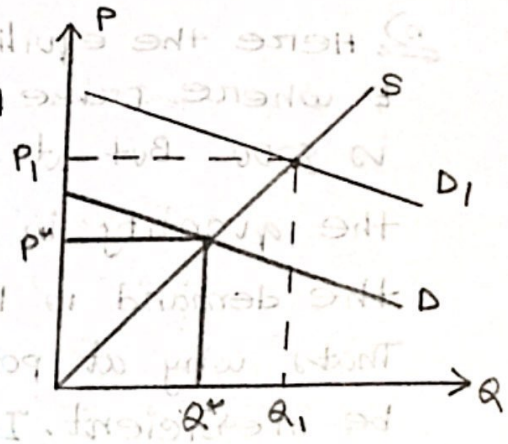
b) In this case, the demand for the hamburger will fall. Because hamburger and french fries are complements, so an increase in the price of french fries will trigger a fall in the demand for french fries itself and also of hamburgers. As a result, demand curve shifts to the left and price falls from P^* to P_1 and quantity from Q^* to Q_1.



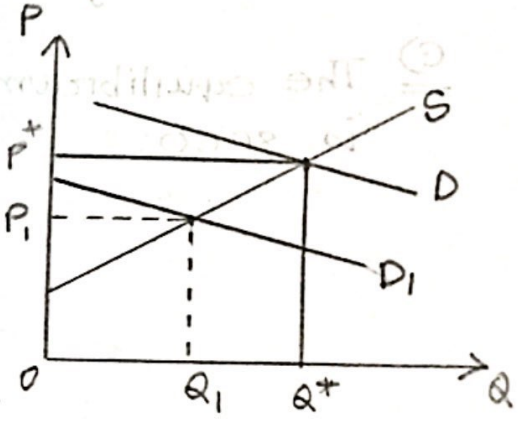
c) If income falls and hamburgers are normal goods then the demand of the hamburgers will decrease. This will shift demand curve to left from D to D_1, equilibrium price P^* to P_1 and quality from Q^* to Q_1.



d) If income falls in the town and hamburger is an inferior good for most people, then the demand of the hamburger will increase because there is an opposite relation between inferior good and income.

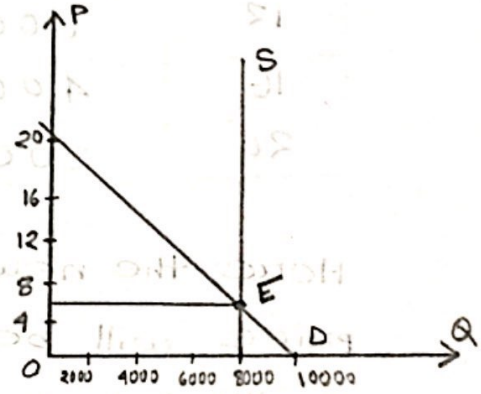


e) The demand of the hamburgers will decrease if the price of hot dog decreases. Because they are close substitude goods for each other.

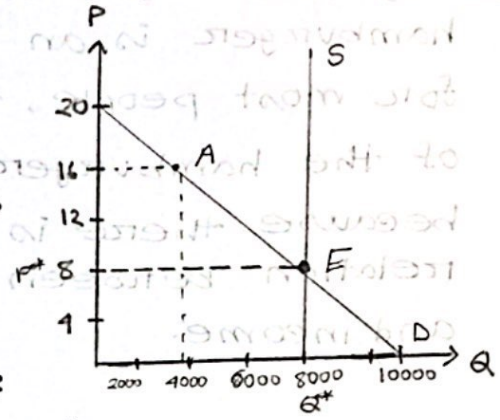


Ans. to the ques. no-4

a) As the law of supply, the supply will increase if the price will increase. or the supply will decrease if the price decrease. In this graph, as the price rises, the supply curve is remained unchanged. The quantity supply remain 8000 though the price increase. This is the unusal about this graph.



b) Here the equilibrium point is E where price is 8 and quantity is 8000. But at the price of 16 the quantity is 4000. Thats means the demand is less than supply. Thats why at point price 16 it'll be inefficient. If the market price is higher than the equilibrium a surplus is created that means quantity ~~demand~~ supply is more than quantity demand. So market become inefficient.

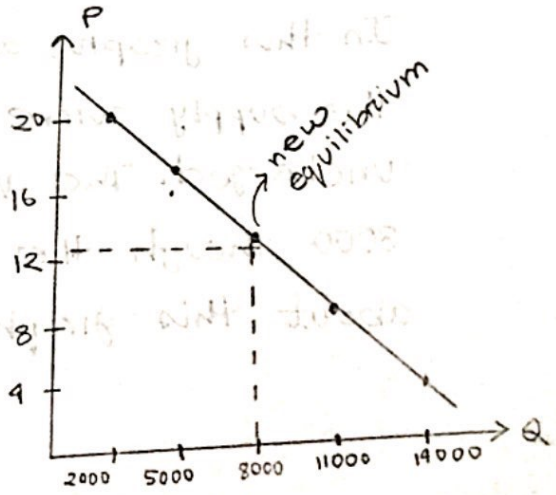


c) The equilibrium price is 8 and quantity of ticket is 8000.

d)

Price	Original quantity demand	Additional quantity demand	New demand
4	10000	4000	14000
8	8000	3000	11000
12	6000	2000	8000
16	4000	1000	5000
20	2000	0	2000

Here, the new equilibrium price will be 12 and equilibrium quantity will be remains 8000.



Ans. to the ques. no-5

a) Here,

1 metric ton of fish = 2000 rooms

∴ 387 metric ton of fish = (2000 × 387)
= 774000

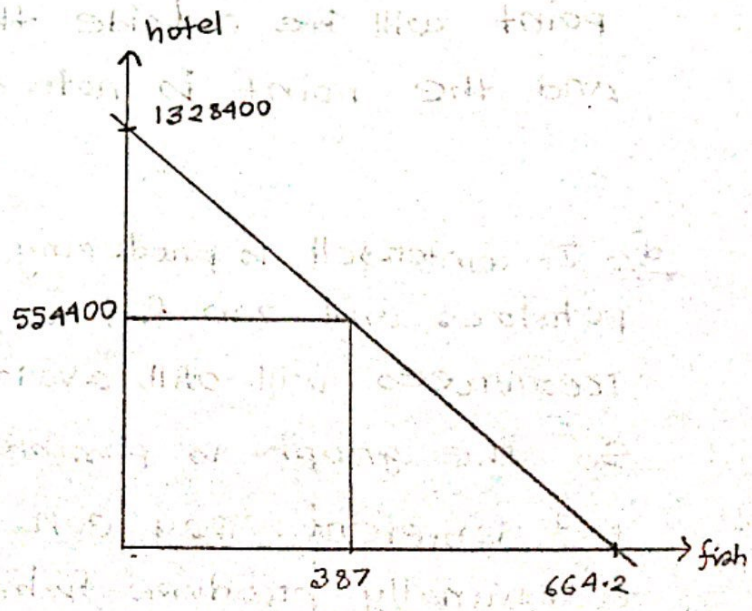
∴ Total rooms = (554400 + 774000)
= 1328400 rooms

b) 2000 hotel stays in the opportunity cost of 1 metric ton fish

∴ 554400 " " " " " " " $\frac{554400}{2000}$ " " "
= 277.2 " "

∴ Total fish = (387 + 277.2) metric ton
= 664.2 metric ton.

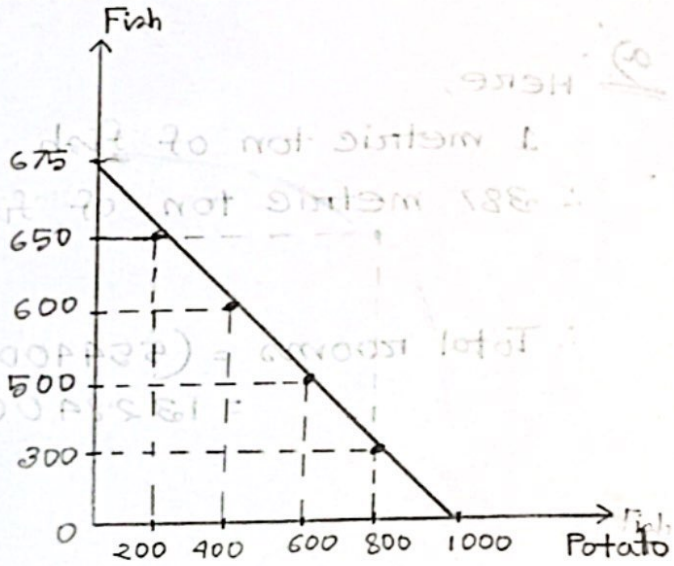
c) PPE for Bermuda with fish on the x-axis and hotel rooms are in y axis.



Ans. to the ques. no-6

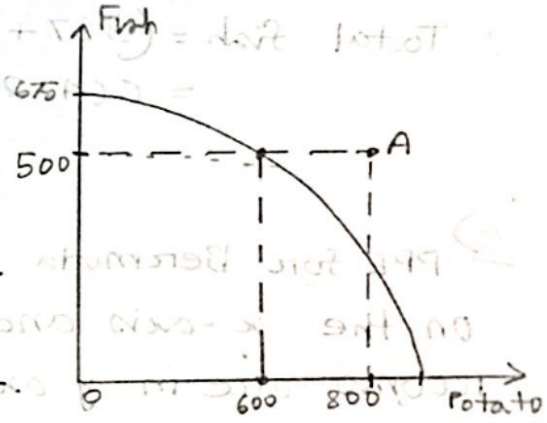
a)

Here in the x axis is potato and in the y axis is fish.

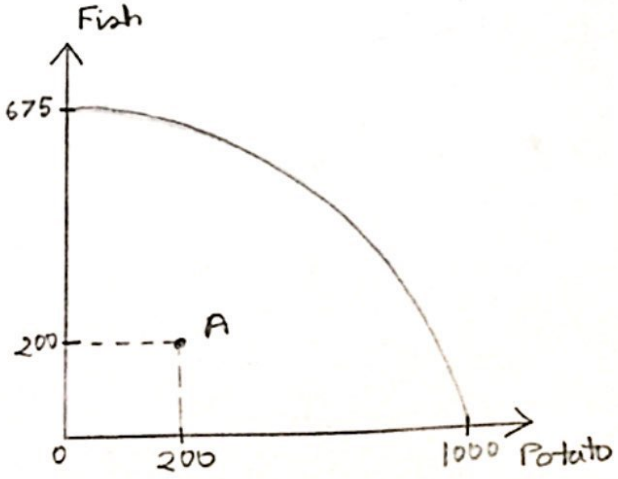


b) If winterfall produces no fish, then the maximum potato production is 1000.

c) No, winterfell can not produce 500 pounds of fish and 800 pounds of potatos. Because if it happens than there will be not enough resources. The point will be outside the ppf and the point is not efficient.



d). If winterfell is producing 200 potatoes and 200 fishes then resources will still available. So, the graph is possible but not efficient. They can additionally produce fish (650 - 200) = 450



e) The opportunity cost of increasing annual output of potatos 600 to 800 pounds is (500-300) = 200 pounds fishes.

f) $OP = \frac{\Delta y}{\Delta x} = \frac{y_2 - y_1}{x_2 - x_1} = \frac{650-675}{200-0}$

$= -0.125$

Potato (x)	Fish (Y)
1000	0
800	300
600	500
400	600
200	650
0	675

$OP = \frac{600-650}{400-200} = -0.25$

$OP = \frac{500-600}{600-400} = -0.5$

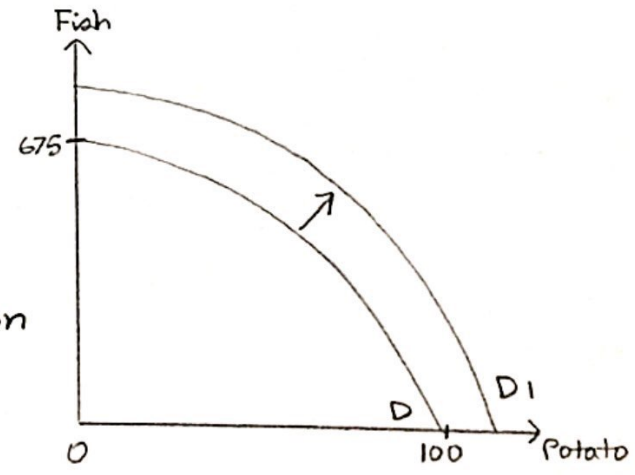
$OP = \frac{300-500}{800-600} = -1$

$OP = \frac{0-300}{1000-800} = -1.5$

∴ The ppf shape is concave because the opportunity cost is increasing.

8) a)

As the discrimination against women and minorities, Winterfell legally ended up in the work place the demand will be increased and production will be increased and the graph will shift in the right.



b) Because of the war, many facilities were bombed and people were killed. As a result the production and supply is decreased and the graph is shifted to the left.