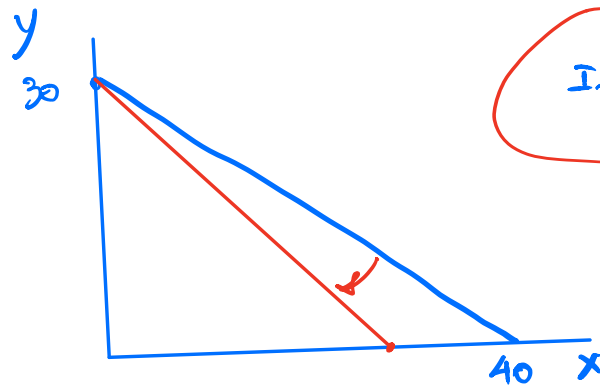


Applications of Consumer's Theory.

1) Government Intervention .

a) Tax on $X = t \text{ } \text{₹}/\text{unit}$.



$$3X + 4Y = 120$$

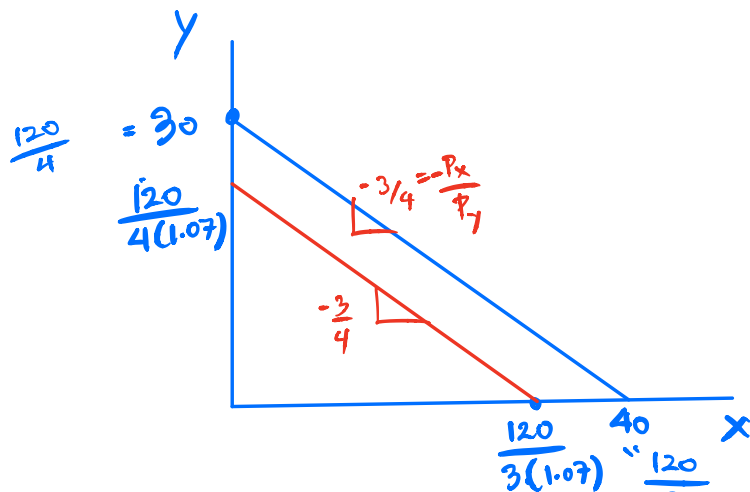
If $t = 1 \text{ } \text{₹}/\text{unit}$

$$\begin{aligned} &\rightarrow (3+1)X + 4Y \\ &= 4X + 4Y = 120 \end{aligned}$$

same as price of X increases.

b) Vat 7% on both $X+Y$

$$3X + 4Y = 120$$



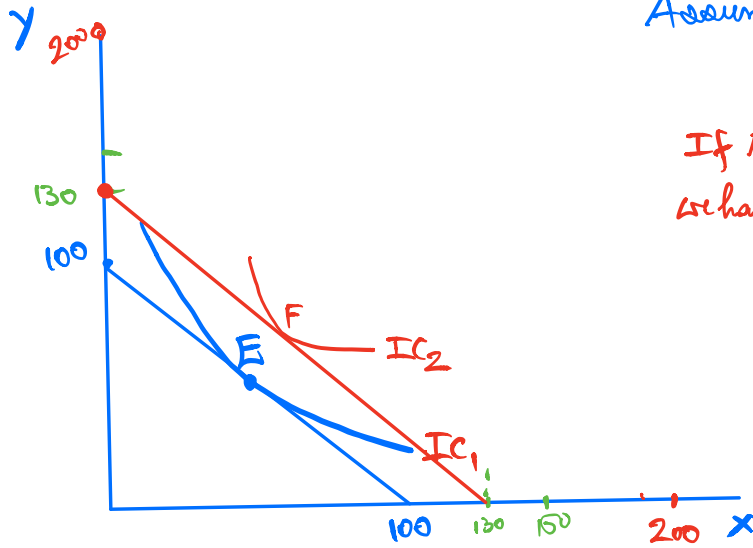
$$\frac{1}{1.07} = 0.934$$

6.6% lower in income.

c) Subsidy = $S \text{ } \text{₹}/\text{unit}$ on $X \Rightarrow P_x$ reduces by $S \text{ } \text{₹}$

d) 50-50 policy - $\leq 3,000 \text{ } \text{₹}$.

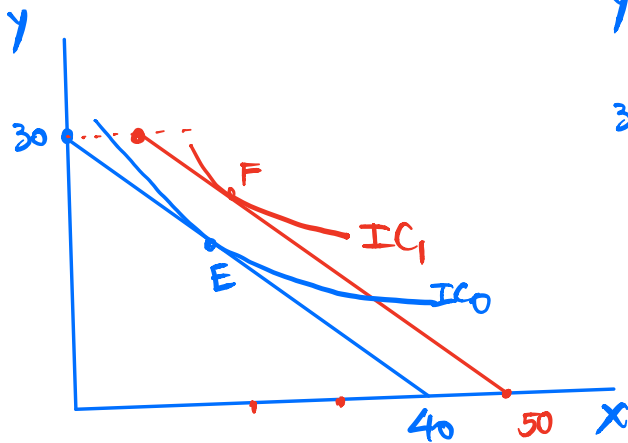
(d.i) can buy both $X+Y$ under this policy.



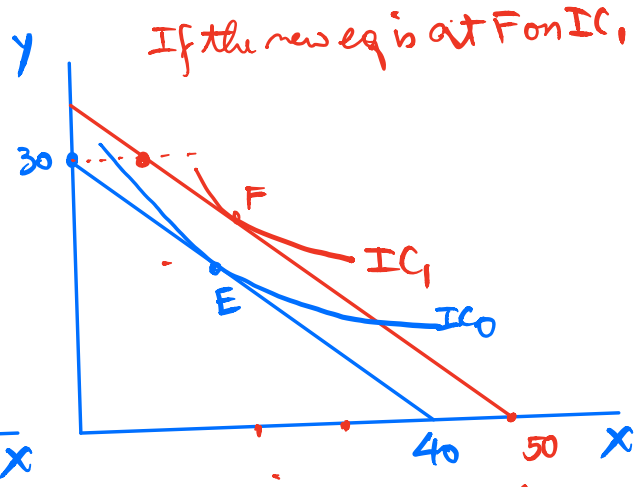
Assume $P_x = P_y = 100\text{¢}$
 Income = 10,000 ¢.
 If the consumer has IC_2
 s/he changes eq. at F.

2) Vouchers - consumer is given voucher for 10 units of X.

Budget line $3x + 4y = 120$. - can consume max of $X = 50$



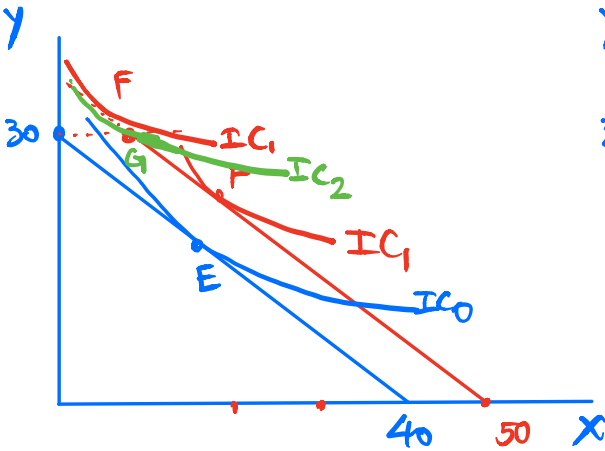
(Voucher)



If the new eq. is at F on IC_1 ,

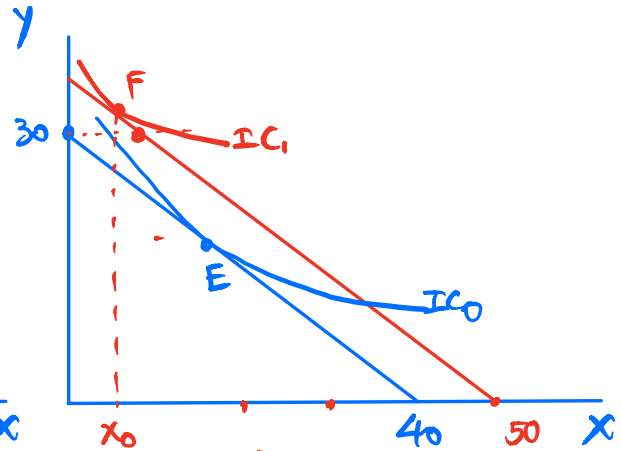
More income of 30 ¢

This case, the consumer does not feel any different between having vouchers or 30 ¢ more income.

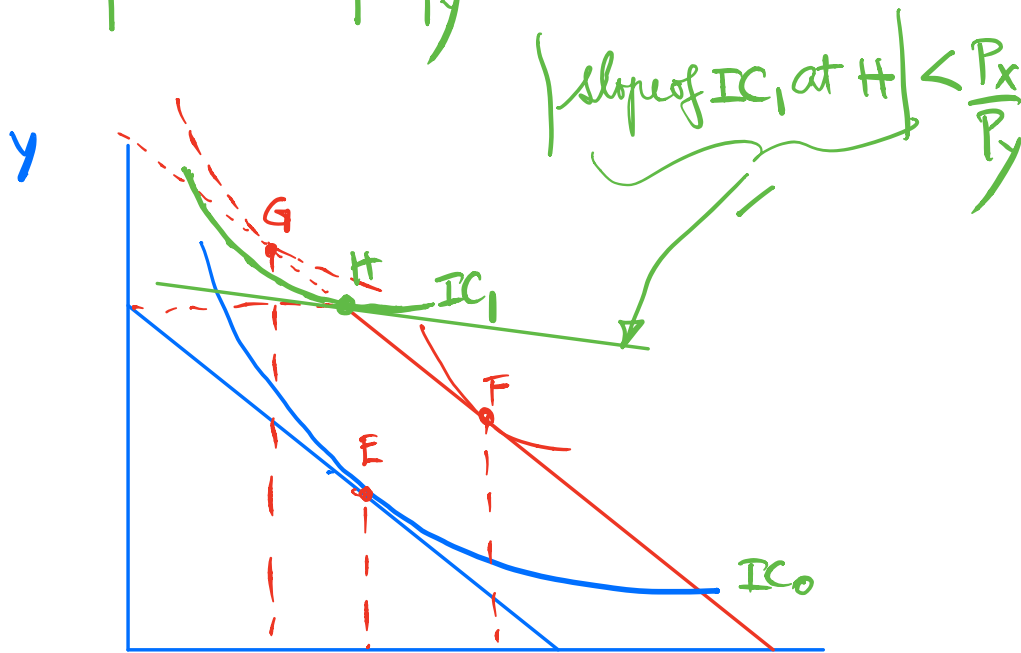


(Voucher)
 Cannot be on IC_1 at F ,
 But have to be on IC_2 at G
 with lower satisfaction

Note. at G , $\left| \text{slope of } IC_2 \right| < \frac{P_x}{P_y}$



More income of 30\$
 - with more income X is inferior
 so much that the consumer
 ends up buying < 10 units
 of X



$\left| \text{slope of } IC_1 \text{ at } H \right| < \frac{P_x}{P_y}$

x_2 } x_0 } x_1 } x
 less than vouchers gives more x from vouchers.

3 Work & Leisure. how a worker decide how many hours to work (earn wages) and to spend in leisure.

- worker has 24 hours/day.

- wage = 40 \$/hour.

Wage increases to 50 \$/hr

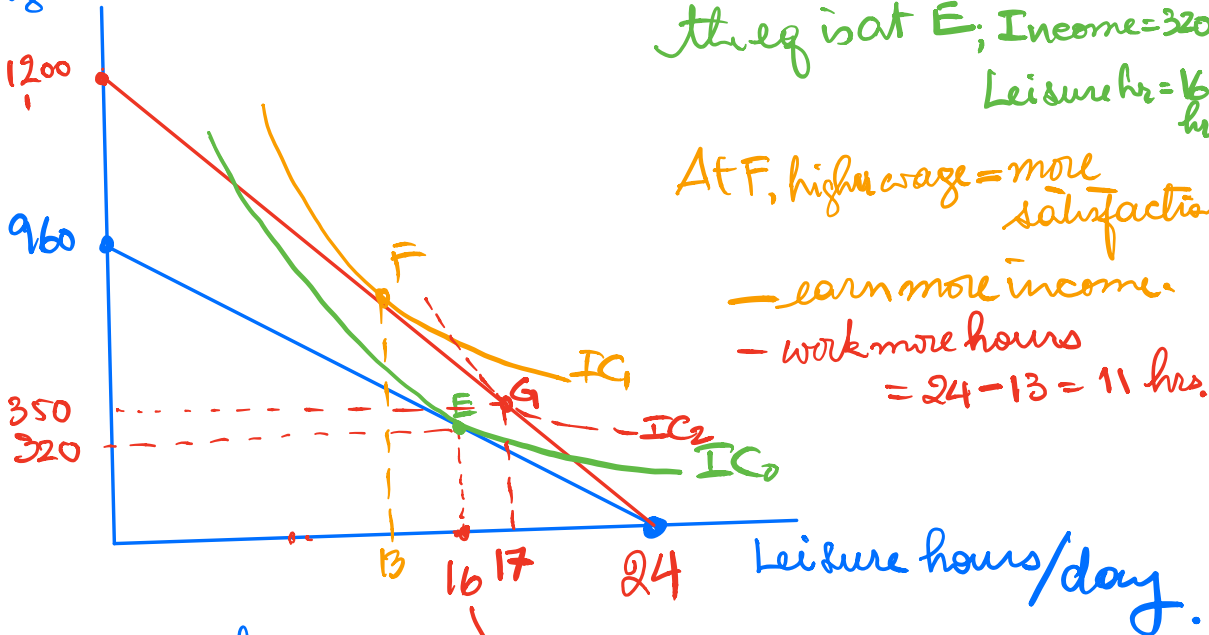
Suppose at wage = 40 \$/hr they is at E; Income = 320
Leisure hr = 16 hr

At F, higher wage = more satisfaction

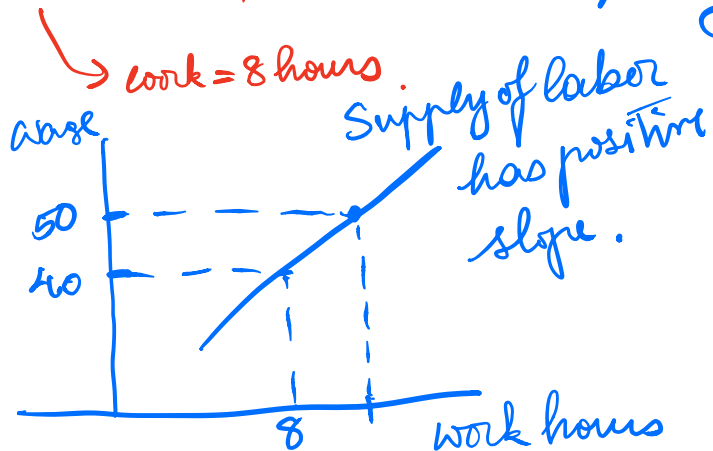
- earn more income.

- work more hours
= 24 - 13 = 11 hrs.

Income
Wage.



wages	work hours
40	8
50	11



But if the eq is at G, higher wage \Rightarrow work less.
 $= 24 - 17 = 7$ hours.

