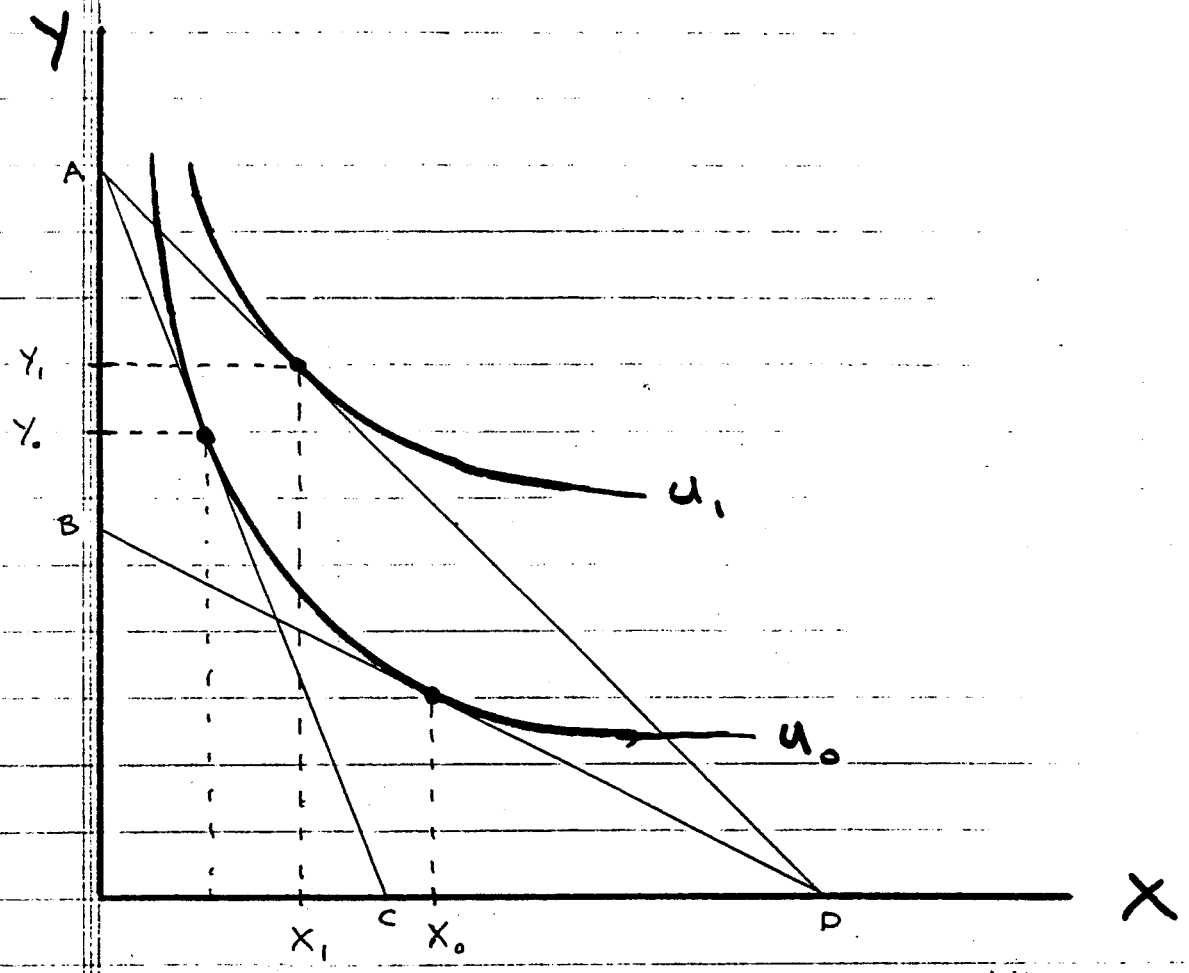


(1)



(a) X is gross substitute for Y: $\frac{dX}{dP_Y} > 0$
 budget line shifts from AD to BD when P_Y rises,
 quantity of X increases from X_1 to X_0
 Y is a gross complement for X: $\frac{dY}{dP_X} < 0$
 budget line shifts from AD to AC when P_X rises
 quantity of Y falls from Y_1 to Y_0

(b) With two goods only net substitutes are possible. Net subs and comps. imply utility is held constant. With diminishing MRS $\frac{dY}{dP_X}$ must be positive.

3. Slutsky equation for cross-price effects in elasticity terms:

$$(a) \quad e_{Q_x, P_y} = e_{Q_x, P_y}^h - S_y e_{Q_x, I} \quad , \text{ and}$$

$$(b) \quad e_{Q_y, P_x} = e_{Q_y, P_x}^h - S_x e_{Q_y, I}$$

pure substitution cross-price effects are symmetric:

$$e_{Q_y, P_x}^h = e_{Q_x, P_y}^h \quad \left(\begin{array}{l} > 0 \text{ in a} \\ & 2 \text{ good world} \end{array} \right)$$

X is inferior, so $e_{Q_x, I} < 0$

Y is normal, so $e_{Q_y, I} > 0$

Comparing (a) and (b) above, e_{Q_x, P_y} will definitely be positive and will be greater than e_{Q_y, P_x} , which may be positive or negative.

Hence the statement is TRUE.

3. Slutsky equation in elasticity terms:

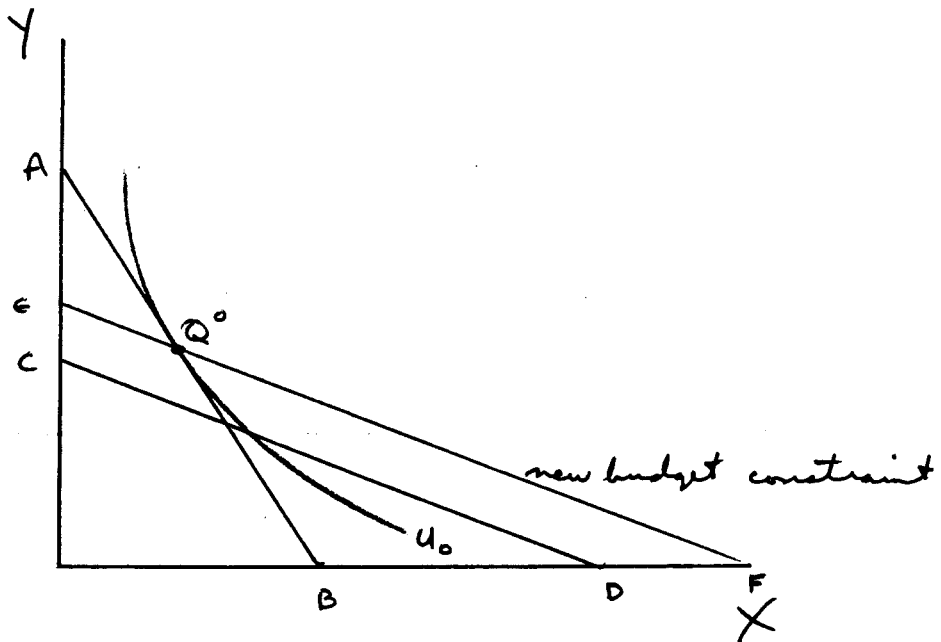
$$e_{Q_x, P_x} = e_{Q_x, P_x}^h - S_x e_{Q_x, I}$$

for normal good $e_{Q_x, I} > 0$ and

bigger S_x means more elastic demand.

for inferior good bigger S_x means less elastic demand. So UNCERTAIN.

4.



$$L_p = \frac{\sum P' Q^0}{\sum P^0 Q^0}$$

EF = individual's new budget constraint when income is adjusted so that Q^0 can be bought at P' . A higher IC can be reached than original U_0 .

$$5. \quad e_{Q_x, P_x} + e_{Q_x, P_y} + e_{Q_x, I} = 0$$

$$e_{Q_x, I} > 1$$

$$e_{Q_x, P_y} > 0$$

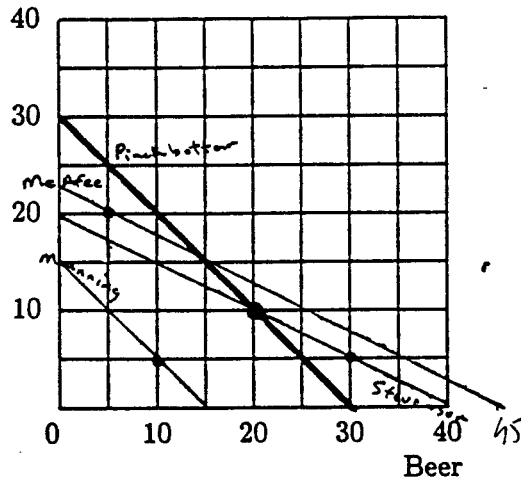
Hence e_{Q_x, P_x} must be less than -1 ,

and the demand for X is elastic.

so FALSE.

Sausage

(6) (a)



(b) McAfee is innocent. Pinchbottom revealed that he preferred 20 beer and 10 sausage to 5 beer and 20 sausage, yet that is the bundle McAfee chooses even though he could consume Pinchbottom's bundle.

(c) If Sir Cedric left voluntarily, then Manning must be innocent. Manning's opportunity set is everywhere dominated by Sir Cedric & Pinchbottom's set.