

加合題：

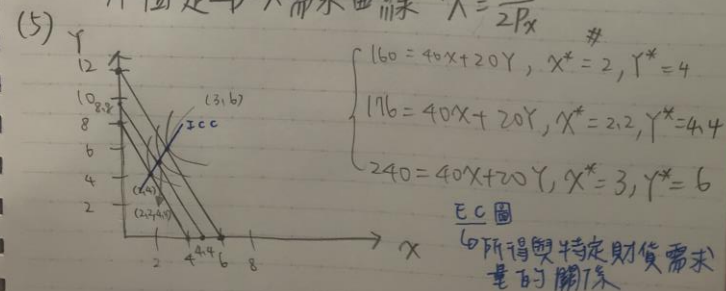
(1) $X^* = \frac{160}{2P_x} = 2, Y^* = \frac{160}{2P_y} = 4$ $160 = 40X + 20Y$
 $\frac{0}{8} \mid \frac{160}{10}$

(2) $X^* = \frac{176}{2P_x} = 2.2, Y^* = \frac{176}{2P_y} = 4.4$ $176 = 40X + 20Y$
 $\frac{0}{8.8} \mid \frac{176}{10}$

(3) $X^* = \frac{240}{2P_x} = 3, Y^* = \frac{240}{2P_y} = 6, Y = 2X$ $240 = 40X + 20Y$
 $\frac{0}{12} \mid \frac{240}{10}$

(4) $Max U = XY$ (永不滿足定理)
 subject to $M = P_x X + P_y Y, (X = \frac{M}{2P_x})$
 當 P_x 固定 \rightarrow 恩格爾曲線 $M = 2P_x X$

M 固定 $\rightarrow X$ 需求曲線 $X = \frac{M}{2P_x}$



加命題 =

(1) $U = XY$

交叉彈性 = 0 \rightarrow X價格變動對Y的消費沒影響

$$\frac{100}{2 \times 10} = 5 \rightarrow y = 5$$

(2) $U = \min(2X, Y)$

消費者均衡不變 $\rightarrow 2X = Y$

(3) 完全替代商品, 買相對便宜的X

$$\rightarrow Y = 0$$