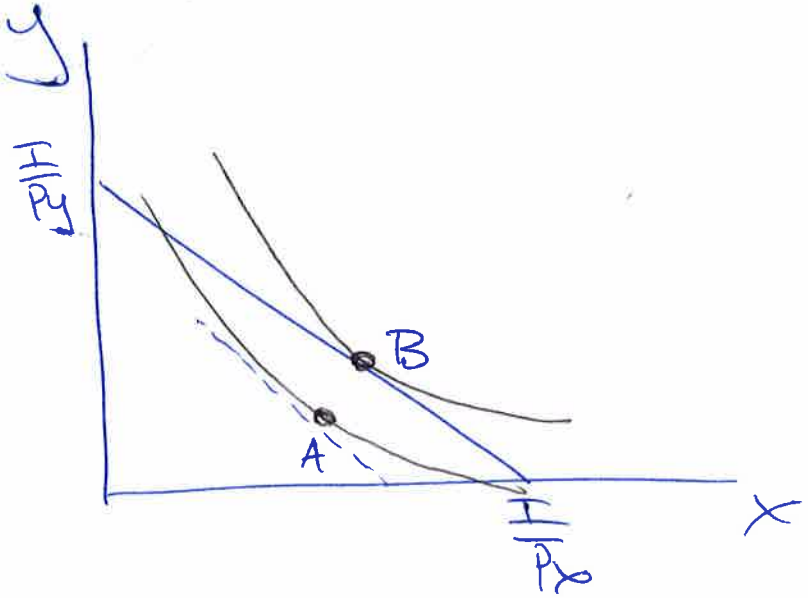
MT I Answer key - Sp 16

① False, that is a necessary, but not sufficient condition, the consumer must also spend all of their income



at A, $MRS = \frac{P_x}{P_y}$, but $I < P_x x + P_y y$ and utility is not maximized as it is at pt B

② $Q = \frac{1}{3} I \iff \frac{I}{Q} = 3$

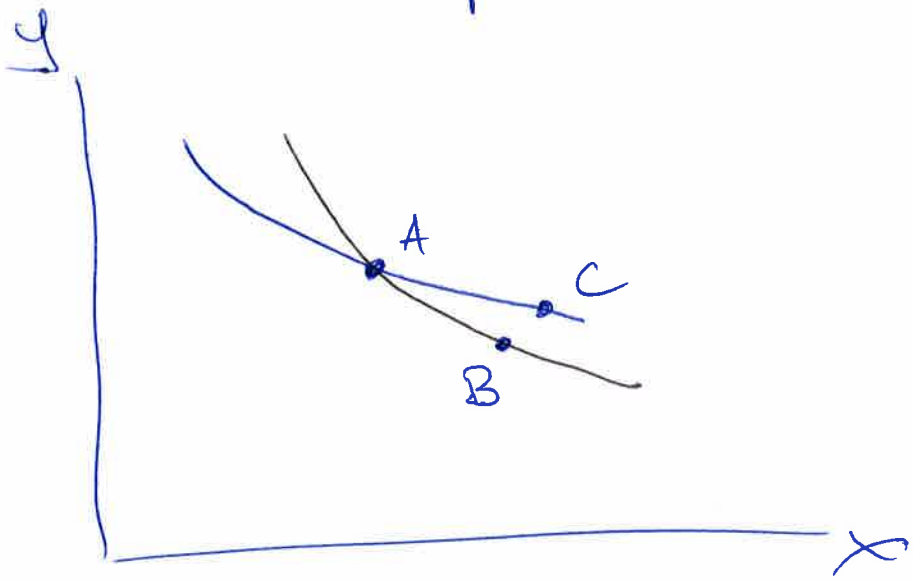
$$e_{Q,I} = \frac{\partial Q}{\partial I} \cdot \frac{I}{Q}$$

$$= \frac{1}{3} \cdot 3$$

$$= 1$$

(3)

Suppose two indifference curves do cross, we can show this violates the assumptions of our set-up

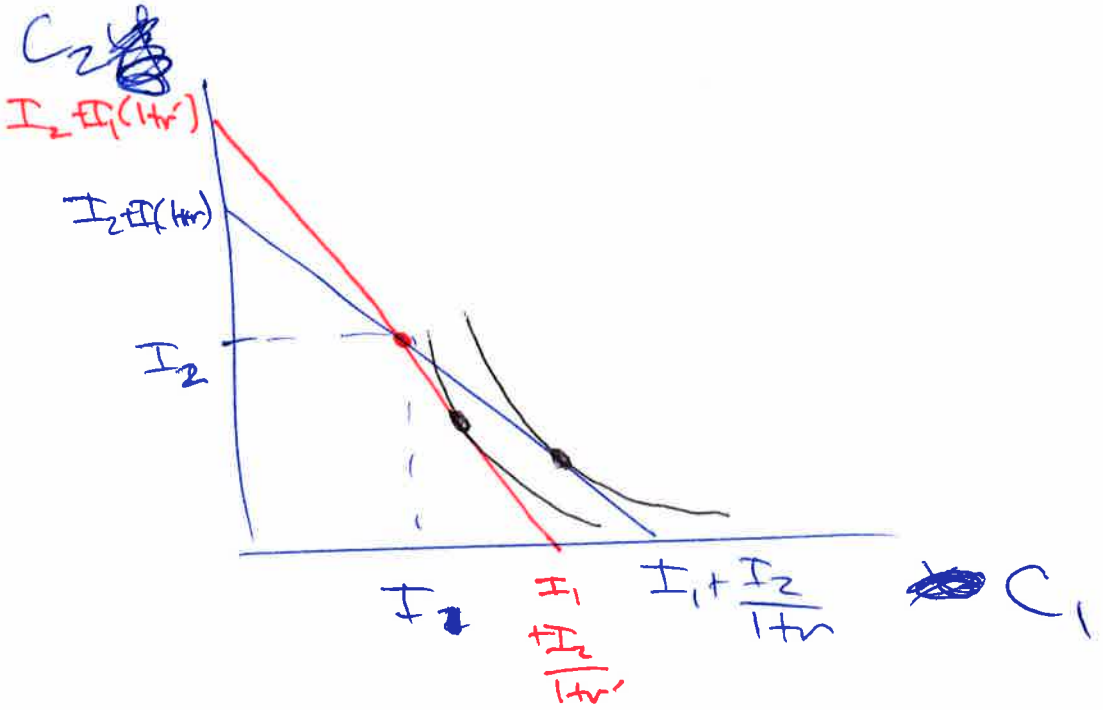


$A \sim B$ as A & B lie on the same IC

$A \sim C$ as A & C lie on the same IC

transitivity then implies $B \sim C$, but $C > B$ so this cannot be true

④ False, an increase in interest rates will cause a consumer to save more, but this does not imply that a borrower will become a lender



The consumer borrows less at r', but is still a borrower

⑤ False, it is true that <u>all</u> goods may not be inferior, but if good "L" exists, then both Z & W may be inferior

(6) consider two individuals 1 & 2 with utility functions

$$u_1 = u_1(x_1, y_1)$$

$$u_2 = u_2(x_2, y_2)$$

the Nietzschean welfare function, which depends only on the best off agent may look like

$$\text{welfare}_N = \max[u_1, u_2]$$

and would be highest if we gave everything to a single consumer