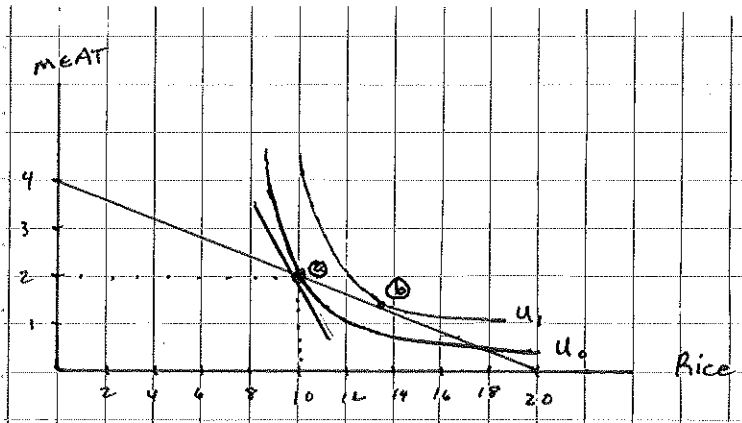
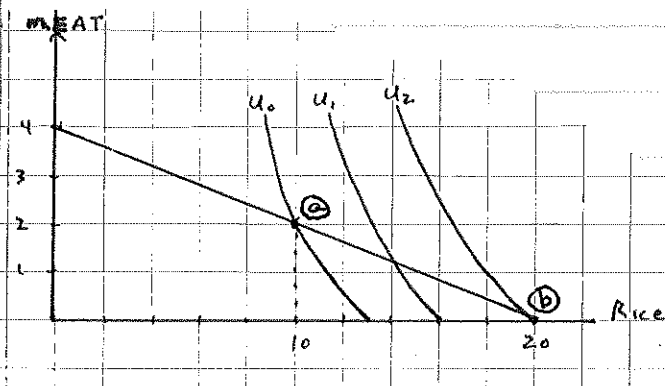


(4 pts.) 6.



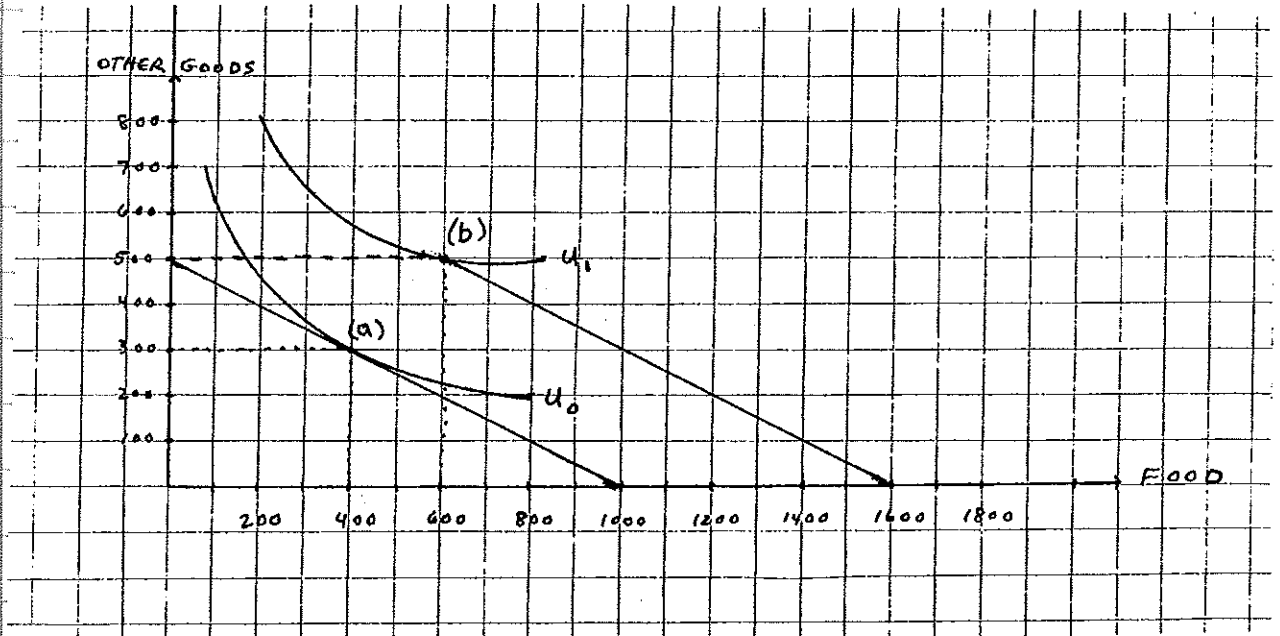
at his initial consumption bundle (\textcircled{a} : 2 lbs meat and 10 lbs rice), Raoul reaches indifference curve U_0 . His $MRS_{\text{MEAT}, \text{RICE}}$ at that point is 1 lb of meat for 1 lb of rice. If others are willing to trade 1 lb of meat for 5 lbs of rice, then Raoul can obtain any bundle on the line between $(4 \text{ M}, 0 \text{ R})$ and $(0 \text{ M}, 20 \text{ R})$, since Raoul's MRS is $\frac{1 \text{ lb meat}}{1 \text{ lb rice}}$ and the market rate of exchange is $\frac{1 \text{ lb meat}}{5 \text{ lb rice}}$, Raoul must be at a point like \textcircled{a} initially. He will trade meat for rice and end up at a point like \textcircled{b} , where his MRS equals the market rate of exchange.



Of course a corner solution is also

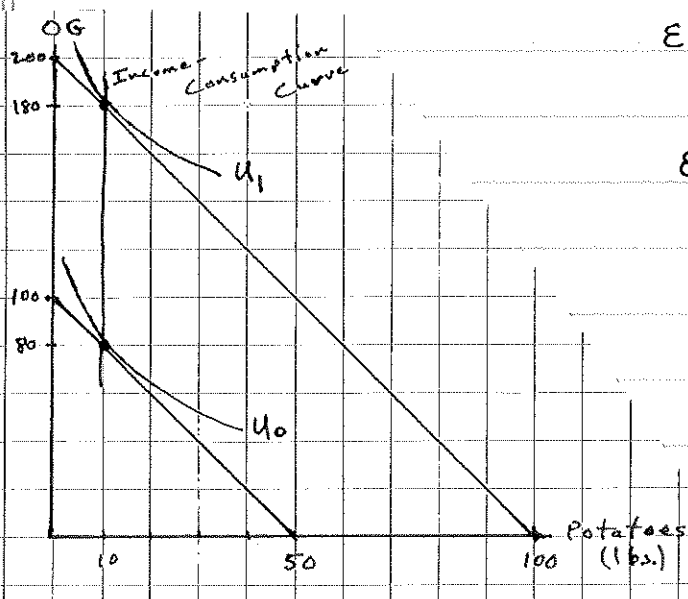
possible. If Raoul's preferences are as illustrated, he will trade away all of his meat and consume only rice.

(6 pts.) 2.



- (a) The Simpson's original budget constraint given income = \$500. They maximize utility by consuming $F=400$ and $OG=300$.
- (b) The Simpson's new budget constraint is kinked. They can consume $F=0, OG=500$, or $F=600, OG=500$, or $F=1600, OG=0$. If they had been given cash income of \$300 (600 units of food \times \$.50/unit) on top of their \$500 income, their budget constraint would be a straight line. They would have preferred the cash if their preferences are as illustrated in (b) above.

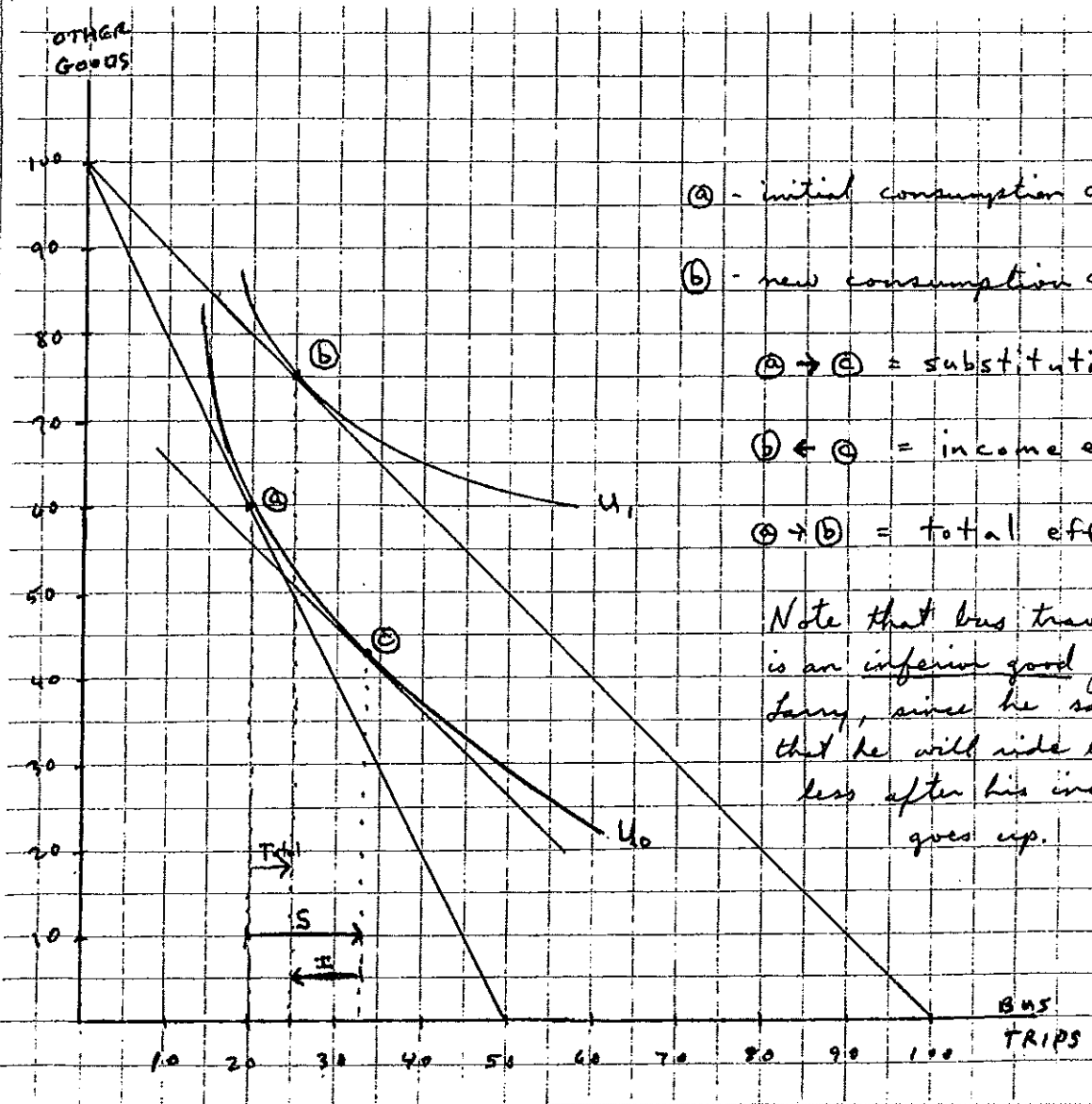
(4 pts.) 3.



$$E_{\text{Potatoes, Income}} = \frac{\% \Delta \text{Potatoes}}{\% \Delta \text{Income}} = 0$$

$$E_{OG, I} = \frac{\frac{\Delta OG}{OG}}{\frac{\Delta I}{I}} = \frac{\frac{100}{80}}{\frac{100}{100}} = 1.25$$

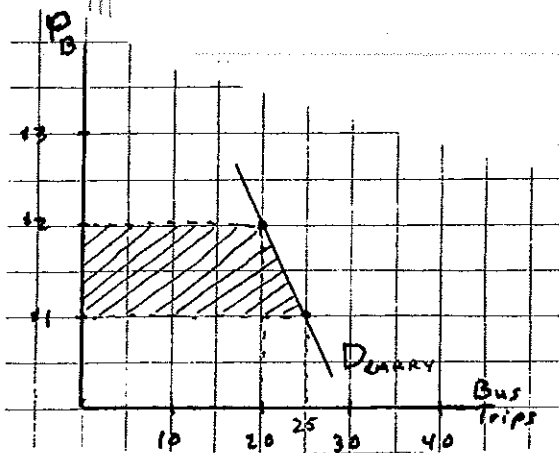
(6 pts.) 4.



- Ⓐ - initial consumption choice
- Ⓑ - new consumption choice
- Ⓐ → Ⓒ = substitution effect
- Ⓒ → Ⓑ = income effect
- Ⓐ → Ⓑ = total effect

Note that bus travel is an inferior good for Larry, since he says that he will ride buses less after his income goes up.

(4 pts.) 5.



The benefit to Larry of a lower price can be measured by the gain in consumer's surplus when price falls from \$2 to \$1. That is equal to the shaded area in the diagram:

$$1 \times \frac{20}{2} + \frac{1}{2} \times 10 = \$22.50$$