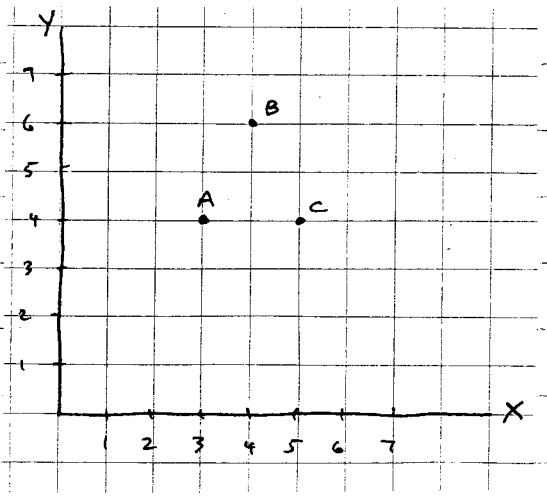
ECO 401-001 Problem Set #2 KEY Spring 2005

1.

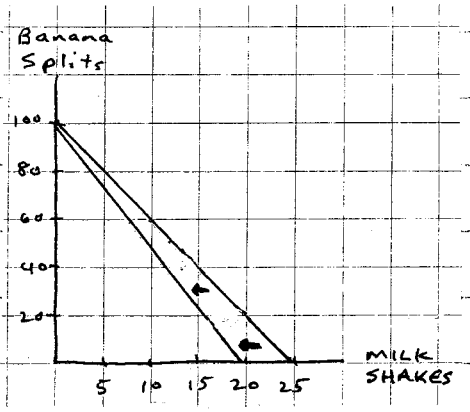


(a) Bundle B is preferred to Bundle A, and Bundle C is preferred to Bundle A.

(b) Bundle C has more X and the same amount of Y, so C is preferred to A.

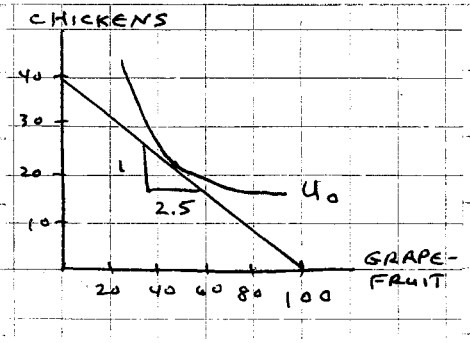
(c) $MRS_{X,Y} = \frac{\Delta Y}{\Delta X} = \frac{2Y}{1X}$

2.



The set of goods that you can afford to purchase has **contracted** from one period to the next, so you are obviously **worse** off (unless you only consume banana splits, in which case you are equally well off.)

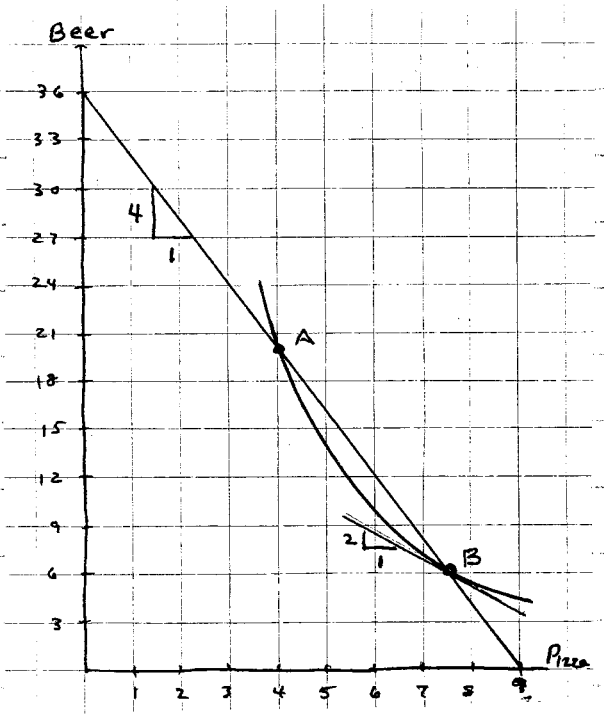
3.



(a) see diagram

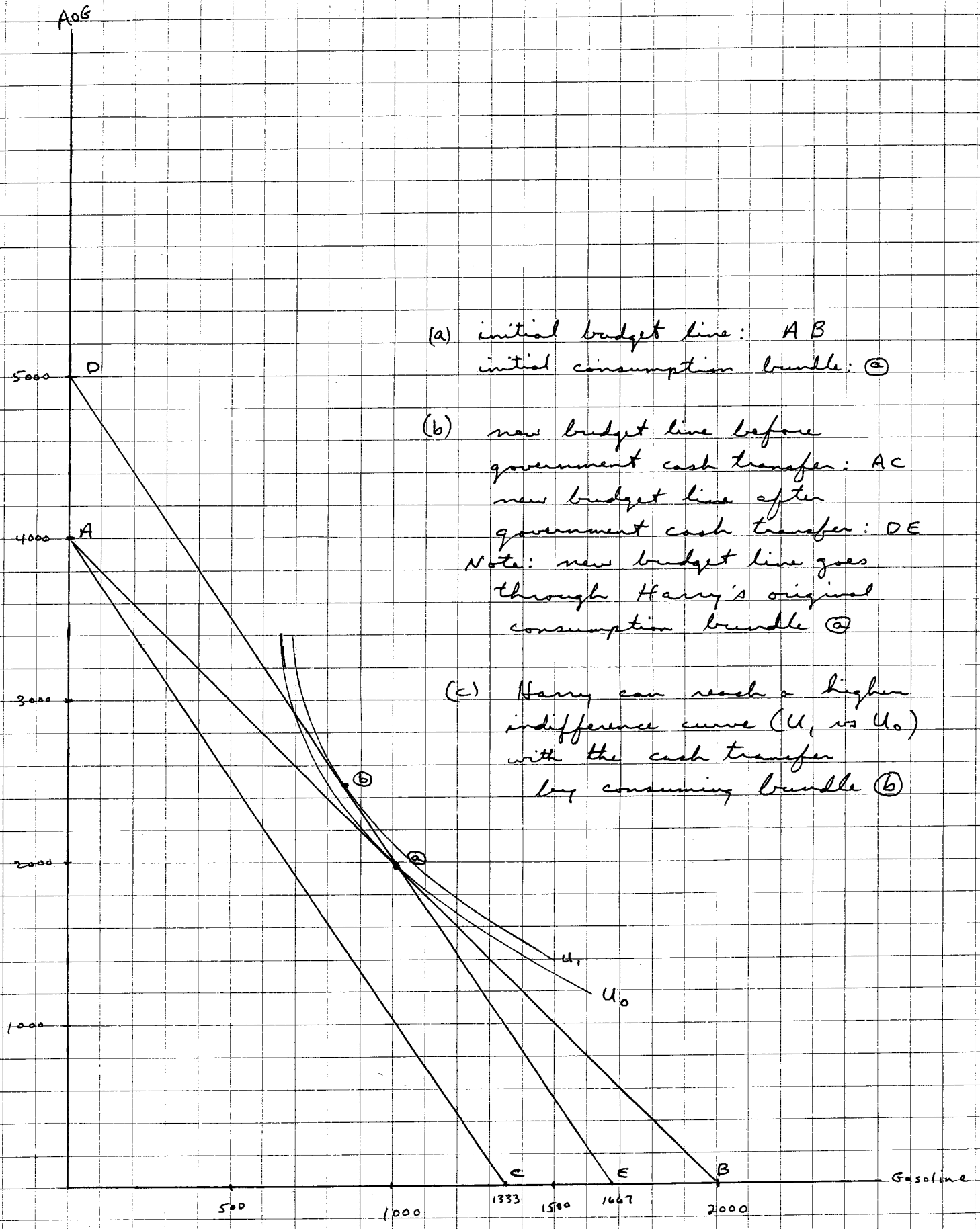
(b) Maximum utility occurs where IC is tangent to budget constraint, or where $MRS_{X,Y} = \frac{P_X}{P_Y}$. At that point you will be willing to trade 1 chicken for 2.5 grapefruit.

4.



Manfred's budget constraint is illustrated in the diagram. Its slope is $\frac{P_X}{P_Y} = \frac{4}{1}$, meaning that in the marketplace one can trade at the rate of 4 beers for 1 pizza. For the bundle of beer and pizza that Manfred is currently consuming, his MRS between beer and pizza is 2 beers for 1 pizza. That is consistent with a point like bundle B, where the slope of the indifference curve is flatter than the slope of the budget constraint.

5.



(a) initial budget line: AB
initial consumption bundle: ⓐ

(b) new budget line before government cash transfer: AC
new budget line after government cash transfer: DE
Note: new budget line goes through Harry's original consumption bundle ⓐ

(c) Harry can reach a higher indifference curve (U_1 vs U_0) with the cash transfer by consuming bundle ⓑ