## Econ 301 Discussion - 9/22/2023

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## **Content Review**

- Types of utility functions:
  - 1. Perfect Substitutes
  - 2. Perfect Complements
  - 3. Cobb-Douglas
- Budget Constraint
- Consumer's maximization problem

## **Practice Questions**

1. Let Rob's preferences over milk m and coffee c (both measured in cups) are represented by  $u(m,c) = \min\{2m,c\}$ . If his budget is Y = 6, price of milk is  $P_m = 2$ , and price of coffee is  $P_c = 4$ , how much milk and coffee would he consume?

2. Consumer A is currently consuming goods a and b at a point where  $MRS_{ab} = 2$ . Prices in the economy are  $p_a = 1$  and  $p_b = 3$ . Can he increase his utility? If so, how?

3. Consumer B's utility function is  $u(a,b) = a^{\frac{1}{2}} + b^{\frac{1}{2}}$ . Graph the indifference curves corresponding to u(a,b) = 1 and u(a,b) = 2.

4. Consumer C's utility function is  $u(a, b) = ab^2$ , and her income is  $Y \ge 0$ . She consumes a = 0. What can you say about her income?

5. **Puzzle:** When can u(a, b) = a + b and  $v(a, b) = \max\{a, b\}$  induce different choices?