Workout Book Problems:

(Monopoly) 25.1,25.2,25.4 (Monopoly Behavior) 26.1,26.2,26.5,26.7,26.8

Apples and Bananas Part 1

- 1. Alan Apple and Betsy Banana consume apples (good 1) and bananas (good
- 2). Alan has an endowment of only apples $\omega_1^A=20, \omega_2^A=0$. Betsy has an endowment of only bananas $\omega_1^B=0, \omega_2^B=20$.
- A) Write down Alan and Betsy's budget equations.
- B) Alan's utility is cobb douglass with the same exponents: $u\left(x_1^A, x_2^A\right) = \left(x_1^A\right)\left(x_2^A\right)$. What is his demand?
- C) Betsy's has perfect complements preferences $u\left(x_1^B,x_2^B\right)=\min\left\{x_1^B,x_2^B\right\}$. What is her demand?
- D) Suppose $p_1 = 1$ and $p_2 = 2$. What are the consumer's demands?
- E) Is $p_1 = 1$ and $p_2 = 2$ an equilibrium?
- F) Assume $p_1 = 1$. What must p_2 be in equilibrium?

Apples and Bananas Part 2

- $2.\ \, {\rm Alan}\ {\rm Apple}$ and Betsy Banana consume apples (good 1) and bananas (good
- 2). Alan has an endowment of only apples $\omega_1^A=20, \omega_2^{A'}=0$. Betsy has an endowment of only bananas $\omega_1^B=0, \omega_2^B=30$.
- A) Alan's utility is cobb douglass with the same exponents: $u\left(x_1^A, x_2^A\right) = \left(x_1^A\right)\left(x_2^A\right)$. What is his demand?
- B) Betsy's utility is cobb douglass with different exponents: $u\left(x_1^A,x_2^A\right)=\left(x_1^B\right)^2\left(x_2^B\right)^1$. What is her demand?
- C) Assume $p_1 = 1$. What must p_2 be in equilibrium?