Lecture 4:
Consumer Choice, In-Class Problem

September 15, 2015

Sketch of Answer to In-Class Problem

- We have two unknowns (optimal H and S), so we need two equations to solve for them
- Equation 1: From the information about income and prices, we can write a budget constraint

$$I = P_S S + P_H H$$
$$12 = 2S + 3H$$

Cont'd

- Equation 2: We know that at equilibrium $-MRS_{H,S} = -\frac{P_H}{P_S}$, or $-MRS$ is equal to the slope of the budget constraint.

$$-MRS_{S,H} = -\frac{P_S}{P_H}$$

$$\frac{MU_H}{MU_S} = -\frac{P_S}{P_H}$$

$$\frac{0.5H^{0.5}S^{-0.5}}{0.5S^{0.5}H^{-0.5}} = \frac{2}{3}$$

$$\frac{H}{S} = \frac{2}{3}$$

- You should be able to solve from here by combining Eq. 1 and Eq. 2 to solve for the two unknowns (H,S)
- Come see me or David if you cannot