Not A Real Problem Set

[NOT due — practice for Exam 1 on Thursday, October 1]

Question 2:

Suppose Klaus faces a choice between lotteries A and B, where:

$$A \equiv (y, 1) \text{ with } y \in (50, 100) \qquad \text{vs.} \qquad B \equiv \left(200, \frac{1}{2} \; ; \; 0, \frac{1}{2} \right).$$

Suppose further that Klaus behaves according to the Koszegi-Rabin model with intrinsic utility for money $w(m) = m$ and universal gain-loss function:

$$\mu(z) = \begin{cases} \eta z & \text{if } z \geq 0 \\ \eta \lambda z & \text{if } z \leq 0 \end{cases}$$

(a) Suppose that Klaus expects y for sure. For what values of y will he choose lottery A?

(b) Suppose that Klaus expects a lottery $C \equiv \left(150, \frac{1}{2}; 50, \frac{1}{2}\right)$. For what values of y will he choose lottery A?

(c) In class, we showed that expecting the risky lottery B can make a person less risk-averse in his choice between A and B relative to when he expects a certain outcome. Here, Klaus expects a lottery with a level of risk in between lotteries A and B. Does a similar conclusion hold?