QUIZ 2, PRESENT BIAS AND SELF CONTROL

Part 1. Suppose we know that Martha is a quasi-hyperbolic discounter and that she is indifferent between one util today and three utils tomorrow. We also know that Clive (also a quasi-hyperbolic discounter) is indifferent between 1 util tomorrow and 3 utils the day after tomorrow. If Martha's $\beta=1/2$, what is Martha's δ ?

We know that $1 = 3\delta\beta$, so with $\beta = 1/2 \delta = 2/3$

Part 2. If Martha's $\delta = 4/9$, what is Martha's β ?

We know $1 = 3\delta\beta$, so with $\delta = 4/9 \ \beta = 3/4$

Part 3. Explain why we cannot determine Clive's β even if we're given his δ ?

We know that $\beta \delta = 3\delta^2 \beta$, so $\delta = 3\delta^2$, we do not know anything about β

Part 4. What is Clive's δ ?

However since $\delta = 3\delta^2$,, $\delta = 1/3$