

1) find the derivative

$$3 - 2UL + 0.6mUL + 0.3c - 0.3m$$

2 ) Solve for ul by setting the derivative equals to 0:

$$3 - 2UL + 0.6mUL + 0.3c - 0.3m = 0$$

$$-2UL + 0.6mUL = -3 + 0.3m - 0.3c$$

$$UL(-2 + 0.6m) = -3 + 0.3m - 0.3c$$

$$UL = \frac{-3 + 0.3m - 0.3c}{-2 + 0.6m}$$

3) find second order dervetive:

*(If result of second order < 0 then the ans is local maxima if second order > 0 then local minima)*

$$\frac{d^2}{dUL^2} J_{UL}(UL, R(UL))$$

$$= 0 - 2 + 0.6m + 0 - 0$$

$$= -2 + 0.6m < 0 \text{ therefore local maxima}$$

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Private int bestStartegy(m,c){
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}
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