

Ayam Banjade SML HWO 4

No.

Date

1) Let three possible values be s_1, s_2, s_3

Let x_1 be price of stock with risk free interest rate r
 x_2 be number of stock at price s .

riskless profit for Person 1 is ~~etc.~~ in boundaries:

$$e^r x_1 + S x_2 \geq C s_1$$

$$e^r x_1 + S x_2 \geq C s_2$$

$$e^r x_1 + S x_2 \geq C s_3$$

riskless profit for Person 2 is in boundaries:

$$e^r x_1 + S x_2 \leq C s_1$$

$$e^r x_1 + S x_2 \leq C s_2$$

$$e^r x_1 + S x_2 \leq C s_3$$

For ~~any~~ it to be valid, all 3 lines have to intersect, which often does not happen.

\therefore Given statement is not possible