

EXAM M QUESTIONS OF THE WEEK

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Week of June 12/06

You are given the following: $q_x = A$, ${}_1|q_x = B$, ${}_1|_2q_x = C$.

Which of the following relationships are correct?

I. ${}_3q_x = A + C$ II. ${}_2q_x = C - B$ III. $\frac{C-B}{A} = {}_1|q_{x+1}$

The solution can be found below.

Week of June 12/06 - Solution

I. $A + C = q_x + {}_1|_2q_x = q_x + ({}_3q_x - q_x) = {}_3q_x$. True.

II. $C - B = {}_1|_2q_x - {}_1|_1q_x = ({}_3q_x - q_x) - ({}_2q_x - q_x) = {}_3q_x - {}_2q_x = {}_2|_1q_x$. False.

III. $\frac{C-B}{A} = \frac{{}_3q_x - {}_2q_x}{q_x} = \frac{{}_2p_x - {}_3p_x}{q_x} = \frac{p_x}{q_x} \cdot (p_{x+1} - {}_2p_{x+1}) = \frac{p_x}{q_x} \cdot {}_1|_1q_{x+1}$. False.