

QUESTION 20/9 SOLUTION (Cantele Alberto/Cancelliere Biagio)

Given a system so defined: $X_{\text{salmon}} = 0 \vee a \leq X_{\text{salmon}} \leq b$

Assumption: we assume “a” and “b” different from 0.

Defining a local variable X set as $X \in \{0,1\}$ that

$$X = \begin{cases} 1 & \text{if } X \in X_{\text{salmon}} \\ 0 & \text{Otherwise} \end{cases}$$

Then multiplying it on the left and on the right of the second equation:

$$aX \leq X_{\text{salmon}} \leq bX'$$

where X' is just the negation of X .