Warm-up exercise: Question

Consider three fuzzy sets $A = \{< 0.2, x_1 >, < 0.5, x_2 >, < 1, x_3 >\}$, $B = \{< 0.3, y_1 >, < 0.9, y_2 >\}$, $C = \{z_1, z_2, z_3\}$, and three fuzzy relation R that is defined on $A \times B$, relation S that is defined on $B \times C$ as $S = \begin{array}{c} \\ y_1 \\ y_2 \end{array} \begin{array}{c} \begin{array}{ccc} z_1 & z_2 & z_3 \end{array} \\ \begin{pmatrix} 0.9 & 0.6 & 0.2 \\ 0.1 & 0.7 & 0.5 \end{pmatrix} \end{array}$ and relation T that is defined on $A \times C$. Apply the *max-min composition rule* to **calculate** the value $T(x_2, z_2)$ in the relation T. (Hint: first construct the relation R based on the Cartesian product of A and B as $\mu_R(x, y) = \min(\mu_A(x), \mu_B(y))$, then apply the *max-min composition rule* to construct the relation T based on two relations R and S.)