$$\mathbf{R} = \{\langle \mathbf{x}_1, \mathbf{y}_1 \rangle, \langle \mathbf{x}_2, \mathbf{y}_3 \rangle, \langle \mathbf{x}_1, \mathbf{y}_4 \rangle\} \subseteq \mathbf{A} \times \mathbf{B}$$