Given two sets A and B, we define the set product of A and B, represented by A x B, as the set

For example, $A=\{1,2,3\}$ and $B=\{a,b\}$, $A\times B=\{(1,a),(1,b),(2,a),(2,b),(3,a) and ($

 $A\times B=\{(x,y)\mid x\in A\ and\ y\in B\}$