

Sections 4.1 Ordered Pairs & Cartesian Products

The ordered pair formed from two entities a and b is the object (a, b) . Ordered pairs have the property that if either of the coordinates a or b is changed, the ordered pair changes. That is, (a, b) and (c, d) are equal iff $a = c$ and $b = d$.

(a_1, \dots, a_n) is called an ordered n-tuple.

The product (or cross product) of A and B is

$$A \times B = \{(a, b) : a \in A \text{ and } b \in B\}.$$