

Ordered Pair

An ordered pair is a pair of elements that have specific importance for the order of their placements.

An ordered pair consists of two numbers that are written in fixed order. So, we can define an ordered pair as the pair of elements that occur in a particular order and are enclosed in brackets.

An ordered pair is a combination of the x coordinate and the y coordinate, have two values written in a fixed order within parentheses.

Ordered pair refers to a number written in certain order. An ordered pair is used to show the position on a graph.

x → horizontal

y → vertical

pairs in math are denoted by (,)

Ordered Pair = (x, y)

↙ abscissa ↗ ordinate

Example

(2, 5), strictly in the order with 2 at the first place called the **abscissa** and 5 at the second place called the

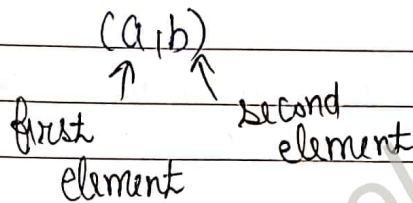
ordinate.

(2, 5) is not equal to the ordered pair (5, 2) because $(2, 5) \neq (5, 2)$.

Set of Ordered Pairs

The Pair of elements that occur in a particular order and are enclosed in brackets is known as a set of ordered pairs.

If 'a and b' are two elements, then the two different pairs are (a,b) , (b,a) .



Equality of Ordered Pair

Two ordered pairs are said to be equal if and only if the corresponding first elements are equal and the second elements are equal.

Example Consider two ordered pairs (a,b) and (c,d)
 They are equal if $a=c$ and $b=d$ i.e.
 $(a,b) = (c,d)$

Q:- Find the values of x and y , if
 $(2x-3, y+1) = (x+5, 7)$

Sol:- $2x-3 = x+5$ and $y+1 = 7$
 $2x-x = 5+3$ $y = 7-1$
 $x = 8$ $y = 6$

Hence $x=8$ and $y=6$