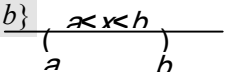
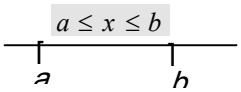
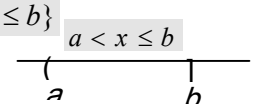
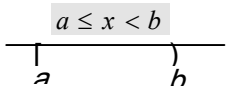
Intervals.

If a variable x assumes any real value between two given numbers, say a and b ($a < b$) as its value, then x is called a continuous variable. The set of real numbers which lie between two specific numbers, is called the interval.

There are four types of interval:

(1)	**Open interval:** Let a and b be two real numbers such that $a < b$, then the set of all real numbers lying strictly between a and b is called an open interval and is denoted by] a, b [or (a, b). Thus,]a, b[or (a, b) = $\{x \in R : a < x < b\}$  Open	(2)	**Closed interval:** Let a and b be two real numbers such that $a < b$, then the set of all real numbers lying between a and b including a and b is called a closed interval and is denoted by [a, b]. Thus, [a, b] = $\{x \in R : a \le x \le b\}$  Closed
(3)	**Open-Closed interval :** It is denoted by]a, b] or (a, b] and]a, b] or (a, b] = $\{x \in R : a < x \le b\}$  Open closed	(4)	**Closed-Open interval :** It is denoted by [a, b[or [a, b) and [a, b[or [a, b) = $\{x \in R : a \le x < b\}$  Closed open