ASSIGNMENT 1
Insertion and Search in R-Tree

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Note:
1. 500k Rectangles were used in this experiment since using 5 million resulted in the system to crash even in lower dimensions.
2. The entry for dimension=500 has been left blank due to system failure while insertion of data points to the R-Tree.

Srl. No.	Number of Dimensions (n)	Average Time Taken (msec) (T)	Average no. of nodes visited (V)	Total no. of nodes (T_v)	No. of rectangles (N)	M, m	Linear Search number of nodes N/4096 (L)	L/V
1	2	73.587	1481	2018	500,000	455, 227	122	0.082
2	3	54.663	2250	3025	500,000	315, 157	122	0.054
3	5	37.146	3707	4896	500,000	195, 97	122	0.033
4	10	26.361	6199	8989	500,000	99, 49	122	0.019
5	50	51.888	16641	46385	500,000	20, 10	122	0.007
6	100	23.021	3724	106413	500,000	10, 5	122	0.033
7	200	10.923	2330	303797	500,000	5, 2	122	0.047
8	500	-	-	-	500,000	2, 1	122	-