

# Clustered Index Seek Complexity

Algorithm : Binary Search

Complexity ~=  
number of required indexes pages (b-tree height )  
+  
number of required data pages ( actual data pages in last level )

why page is the unit ?  
page is the basic unit for the database engine not row.  
if the page contain multiple row and we want only to return one row , the engine will read the whole page from disk and filter on database server memory.

for ex :  
Select \* from product where  
id = 5

number of indexes pages : 3

number of actual data page : 1

total : 4 pages

for ex :  
select \* from product where  
id < 7

number of indexes pages : 3

number of actual data page : 2

total : 5 pages