534575-5-32KE AID:258164 | 09/07/2020

a) step 1of 2:

Density of direct hashing function when 1000 byte of information and 1500 node:

|  |
| --- |
| Density = (information bytes) / (total bytes)  = (n \* w) / ((n \* w) + 4 N )  =1 + (1 + 4/w) |

Formula for density is:

Step 2of 2:

Calculation of density:



Density is 0.996015936

b) step 1of 2:

Density of division hashing function when 1000 byte of information and 1500 node:

|  |
| --- |
| Density = (information bytes) / (total bytes)  = (n \* w) / ((n \* w) + 4 N )  =1 + (1 + 4/w) |

Formula for density is:

Step 2of 2:

Calculation of density:



Density is 0.996015936