**Question 3.2.43:**

Put/get ratio. Determine empirically the ratio of the amount of time that BST spends on put() operations to the time that it spends on get() operations when FrequencyCounter is used to ﬁnd the frequency of occurrence of values in 1 million randomly-generated integers.

**Analysis:**

When we generate 100000 number of randomly generated integers. We found that number of put() operation is approx to 20 lakhs whereas No.of get() operation is approx to 28 lakhs. There is a difference in 8 lakh operations , but when coming to the ratio analysis , it is 42 & 57 respectively.

As we calculate the put()/get() ratios, we get 0.72 which is approx to 1.

While coming to time complexities both put() and get function has O(logN).

**Testcase:**

No of put Operations: 2096631.0

No of get Operations: 2876139.0

Put ratio: 42.16

Get ratio: 57.83

put()/get(): 0.72