CS 351 - FALL'11 - SECTION #1
SOLUTIONS OF QUIZ #2

Quiz Date: 20 October 2011

n = 100,000 records
R = 400 bytes
B = 2400 bytes
Bucket size = 10 blocks
r = 10 ms
s = 5 ms
btt = 0.4 ms
ebt = 0.5 ms

Question: Find Tf.

Answer: Tf = (s+r) + (ebt)*(b/2)

since (s+r) is so small, neglect it
Tf = (ebt)*(b/2)

b = n*R/B
= 100,000 * 400 / 2400 = 100,000/6 means 16,667 blocks

Tf = (0.5) * (16,667/2) = ~4167 ms (with (s+r) = 4167 + 15 = 4182 ms)