Comp Arch 2 – Cache assignment

Q2.

```
C:\Users\tonpr\Desktop\IA32\cache_asg>simple
Hits:9, Misses:23
Hits:13, Misses:19
Hits:15, Misses:17
Hits:16, Misses:16

C:\Users\tonpr\Desktop\IA32\cache_asg>
```

Correct answer for each question. All of them are correct and you can verify the answers by doing it by hand yourself if u want (or run the animation online urself).

Corresponding results from animation

N =8 K =1 L=16

Miss, Hit, Hit, Miss, Miss, Miss, Miss, Miss, Hit, Hit, Miss, Hit, Miss, Miss, Miss, Miss, Miss, Hit, Miss, Miss, Miss, Miss, Miss, Miss, Miss, Miss, Hit, Miss, Miss, Hit, Miss, Hit.

Hit = 9 Misses = 23 - Correct

N = 4 K=2 L=16

Miss, Hit, Hit, Miss, Miss, Miss, Miss, Miss, Hit, Hit, Miss, Hit, Hit, Miss, Miss, Miss, Miss, Hit, Miss, Hit, Hit, Miss, Hit, Miss, Miss, Miss, Hit, Miss, Miss, Miss, Hit, Hit

Hits = 13 Miss = 19 - Correct

N = 2 K = 4 L=16

Miss, Hit, Hit, Miss, Miss, Miss, Miss, Miss, Hit, Hit, Mis, Hit, Hit, Miss, Hit, Hit, Miss, Hit, Miss, Miss, Hit, Miss, Hit, Miss, Miss, Hit, Hit, Miss, Miss, Miss, Hit, Hit

Hits = 15 Misses = 17 - Correct

N = 1 K = 8 L = 16

Miss, Hit, Hit, Miss, Miss, Miss, Miss, Miss, Hit, Hit, Miss, Hit, Hit, Miss, Hit, Hit, Miss, Hit, Miss, Hit, Hit, Miss, Hit, Miss, Miss, Hit, Hit, Miss, Miss, Miss, Hit, Hit

Hits = 16 Misses = 16 - Correct

Q3.

```
tony@tony-W65-W67RB:~/Desktop/CompArch2/cache_asg$ ./matrixMultiply
tony-W65-W67RB 19-Nov-2018 22:24:40
RELEASE
Linux 4.15.0-39-generic 64 bit exe
Intel64 family 6 model 94 stepping 3 Intel(R) Core(TM) i5-6300HQ CPU @ 2.30GHz NCPUS=4 RAM=8GB L2 cacheSz=256K
L1 D    32K L 64 K  8 N    64
L1 I    32K L 64 K  8 N    64
L2 U   256K L 64 K  4 N  1024
L3 U  6144K L 64 K 12 N  8192

50x50 matrix multiplication
cnt=208328 20830.72 op/s

50x50 matrix multiplication using matB_transposed
cnt=234069 23404.56 op/s

OK     1.12 time faster
tony@tony-W65-W67RB:~/Desktop/CompArch2/cache_asg$
```

1.12 times faster apparently