

The output of the command `getconf -a | grep CACHE` is

```

LEVEL1_ICACHE_SIZE           32768
LEVEL1_ICACHE_ASSOC
LEVEL1_ICACHE_LINESIZE       64
LEVEL1_DCACHE_SIZE           32768
LEVEL1_DCACHE_ASSOC          8
LEVEL1_DCACHE_LINESIZE       64
LEVEL2_CACHE_SIZE             524288
LEVEL2_CACHE_ASSOC            8
LEVEL2_CACHE_LINESIZE        64
LEVEL3_CACHE_SIZE             8388608
LEVEL3_CACHE_ASSOC            0
LEVEL3_CACHE_LINESIZE        64
LEVEL4_CACHE_SIZE
LEVEL4_CACHE_ASSOC
LEVEL4_CACHE_LINESIZE

```

1. There are three levels of cache
2. Cache size are given in the table below

Level	Size
1	32768(instruction cache) + 32768(data cache)=65536 bytes = 64 KiB
2	524288 bytes = 512 KiB
3	8388608 bytes = 8 MiB

3. Associativity of Level-1 cache (Instruction) = 0
Associativity of Level-1 cache (data) = 8
Associativity of Level-2 cache = 8
Associativity of Level-3 cache = 0
4. My CPU has 6 cores. Since L1 and L2 have 6 instances, one for each core we would have
 $6 * (64 \text{ KiB}) + 6 * (512 \text{ KiB}) + 8 \text{ MiB} = 8 \text{ MiB} + 3 \text{ MiB} + 384 \text{ KiB} = 11.384 \text{ MiB}$