CS301 project readings

Hardware details:

```
Architecture:          x86_64
CPU op-mode(s):        32-bit, 64-bit
Byte Order:            Little Endian
CPU(s):                16
On-line CPU(s) list:   0-15
Thread(s) per core:    1
Core(s) per socket:    8
Socket(s):             2
NUMA node(s):          2
Vendor ID:             GenuineIntel
CPU family:            6
Model:                 62
Stepping:              4
CPU MHz:               1200.000
BogoMIPS:              3999.45
Virtualization:        VT-x
L1d cache:             32K
L1i cache:             32K
L2 cache:              256K
L3 cache:              20480K
NUMA node0 CPU(s):     0-7
NUMA node1 CPU(s):     8-15
```

Problem size = 2*10^9 integers
Sequential time = 864.8 seconds

Number of procs	Time in seconds	Speedup	Efficiency
2	617.02	1.4015	0.700
4	309.6	2.793	0.6983
8	153.825	5.621	0.702
12	117.98	7.330	0.610
16	104.7	8.259	0.5162

Problem size = 10^9 integers
Sequential time = 350 seconds

Number of procs	Time in seconds	Speedup	Efficiency
2	301.9	1.159	0.579
4	148.75	2.352	0.588
8	75.262	4.650	0.5813
12	58.6	5.972	0.4977
16	61.11	5.727	0.3579

Problem size = 10^8 integers
Sequential time = 30.9 seconds

Number of procs	Time in seconds	Speedup	Efficiency
2	25.201	1.226	0.613
4	13.138	2.351	0.5879
8	6.691082	4.618	0.577
12	4.487061	6.886	0.5738
16	5.96477	5.181	0.3238

Problem size = 10^7 integers
Sequential time = 2.75 seconds

Number of procs	Time in seconds	Speedup	Efficiency
2	2.249	1.222	0.611
4	1.1625	2.365	0.5913
8	0.5966	4.60	0.576
12	0.4833	5.69	0.474
16	0.507	5.424	0.339