README

Dawei Jia   UFID:91365931

1. The size of work unit is 1/5 of toal numbers. Because I have 5 workers, I assign 1/5part
   work to each worker for one time to complete this work.

```
jiadw007@jiadw007-PC:~/scala/src$ time scala project1.scala 1000000 4

real    0m3.056s
user    0m7.892s
sys     0m0.256s
```

2. The result of running my program for scala project1.scala 1000000 4 is no result.

```
jiadw007@jiadw007-PC:~/scala/src$ scala project1.scala 1000000 4
jiadw007@jiadw007-PC:~/scala/src$
```

3. The running time is

```
jiadw007@jiadw007-PC:~/scala/src$ time scala project1.scala 1000000 4

real    0m3.247s
user    0m8.620s
sys     0m0.308s
jiadw007@jiadw007-PC:~/scala/src$
```

   the ratio is (sys+user)/real=2.77
4. The largest problem I manage to solve is scala project1.scala 1000000000 24

```
jiadw007@jiadw007-PC: ~/scala/src
306060
353585
534964
841476
1273121
2002557
3500233
5295700
8329856
12602701
19823373
29991872
34648837
52422128
82457176
124753981
196231265
296889028
342988229

real    37m43.647s
user    132m28.132s
sys     3m42.992s
jiadw007@jiadw007-PC:~/scala/src$
```

5. remote actors:

In this program, we have one super boss in this 10 machines. This super boss is responsible for assigning the job to each machine. Each machine is a boss. When it gets a job, it will assign the job to its workers. And workers will be responsible for the calculation part.