Write a program to keep CPU usage as sin funcion ⍈

It is said that this is a problem from interview of Microsoft. Write a program, which makes the CPU usage curve in Windows Task Manager shows a Sin function.

The program below is written in java:

```
 1  public class sincpu {
 2      private static final int cycle=1
024,tick = 256;
 3      public static void main (String[]
 args) throws InterruptedException {
 4          for(int i = 0;;i++){
 5              work(calcNextSleep(i % c
ycle));
 6              sleep(tick - calcNextSle
ep(i % cycle));
 7          }
 8      }
 9
10      private static long calcNextSleep
(long i){
11          return (int)(Math.sin((double
)i * 2 * Math.PI / cycle) * tick + tick)
 / 2;
12      }
13
14      private static void sleep (long
sleepTime) throws InterruptedException
15      {
16          if(sleepTime < 2)
17              Thread.yield();
18          else
19              Thread.sleep(sleepTime);
```

```
20        }
21
22      private static void work (long p
eriod) {
23          long start = System.currentT
imeMillis();
24          for(;;){
25              Math.sin(1);
26              if(System.currentTimeMil
lis() - start >= period)
27                  break;
28          }
29      }
30 }
```

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Be careful you need to turn off other cores if you
have multi-core CPU.