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Write a program to keep CPU usage as
sin function

Imported from: renren.

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=1024, tick=100;
3     public static void main (String[] args) {
4         for(int i = 0;;i++){
5             work(calcNextSleep(i % cycle));
6             sleep(tick - calcNextSleep(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;
12    }
13
14    private static void sleep (long sleepTime) {
15        if(sleepTime < 2)
16            Thread.yield();
17        else
18            Thread.sleep(sleepTime);
19    }
```

```
20     }
21
22     private static void work (long period
23         long start = System.currentTimeMillis()
24         for(;;){
25             Math.sin(1);
26             if(System.currentTimeMillis()
27                 break;
28         }
29     }
30 }
```

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

