Homework 4

Write and run an OpenMP program to compute the following recurrence:

```
for (int i = 0; i<n; i++) {
  t = t + a[i];
}
print(t);
```

Write two versions of the program:

1. Write a version using the OpenMP reduction clause
2. Write a version without using reduction clause. Instead use an array with one element per thread (or some other way of having a private variable for each thread) to hold the partial sums, and a sequential loop to sum up the partial sums

Time the two versions using arrays of size 10000, 100000 and 1000000. Do several timings. Turn in program listings, output, and times for the six runs as a .txt file

You can use your laptop or an ECN lab machine to run this.

What to turn in: You should turn in a zip file called <your last name>.zip. When unzipped it should create a directory called <your last name> containing a text file *hw3.txt* with your explanation. Thus I would turn in a file called *midkiff.zip* and when uncompressed it would give a directory called *midkiff* that contains a .txt file called *hw3.txt*.