Concurrent Writes vs Reads

- Reading a shared variable is OK; writing is not!

Thread 0
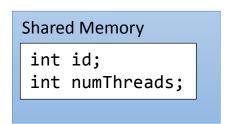
```
id = omp_get_thread_num();
numThreads = omp_get_num_threads;
printf("Hello from thread %d of %d\n", id, numThreads);
```

Thread 1

```
id = omp_get_thread_num();
numThreads = omp_get_num_threads;
printf("Hello from thread %d of %d\n", id, numThreads);
```

This is called a race condition!

Remember there are multiple paths of execution!

Shared Memory

```
int id;
int numThreads;
```

A Possible Route of Execution...

Time	Thread 0	Thread 1
1	Start parallel	
2	id = 0	Start parallel
3	numThreads=2	id = 1
4	Print to screen	numThreads=2
5		Print to screen