

Test And Set

This is C-pseudo-code, don't try to compile it!

```
1 boolean test_and_set(boolean *lock){
2     boolean was_already_locked = *lock;
3     *lock = true;
4     return was_already_locked;
5 }

1 // ...
2 while (test_and_set(&lock));
3 // Here goes the critical section
4 lock = false;
```

Compare And Swap

This is C-pseudo-code, don't try to compile it!

```
1 int compare_and_swap(int *value, int expected, int new_value){
2     int temp = *value;
3     if (*value == expected){
4         *value = new_value;
5     }
6     return temp;
7 }

1 // ...
2 while (compare_and_swap(&lock, 35, 43) != 35));
3 // Here goes the critical section
4 lock = 35;
```

Mutex Locks

<pre>1 acquire(){ 2 while (!available); 3 available = false; 4 }</pre>	<pre>1 release(){ 2 available = true; 3 }</pre>
--	---

Semaphore

<pre>1 wait(S){ 2 while (S <= 0); 3 S--; 4 }</pre>	<pre>1 signal(S){ 2 S++; 3 }</pre>
---	--