

# Worksheet: Critical Path Length for Computation with Signal Statement

Compute the WORK and CPL values for the program shown below. How would they be different if the signal() statement was removed?  
(Hint: draw a computation graph as in slide 11)

**WORK = 204, CPL = 102. If the signal() is removed, CPL = 202.**

```
1.finish(() -> {
2.  final HjPhaser ph = newPhaser(SIG_WAIT);
3.  asyncPhased(ph.inMode(SIG_WAIT), () -> { // Task T1
4.    A(0); doWork(1); // Shared work in phase 0
5.    signal();
6.    B(0); doWork(100); // Local work in phase 0
7.    next(); // Wait for T2 to complete shared work in phase 0
8.    C(0); doWork(1);
9.  });
10. asyncPhased(ph.inMode(SIG_WAIT), () -> { // Task T2
11.  A(1); doWork(1); // Shared work in phase 0
12.  next(); // Wait for T1 to complete shared work in phase 0
13.  C(1); doWork(1);
14.  D(1); doWork(100); // Local work in phase 0
15. });
16.}); // finish
```

