Worksheet #21a: Abstract Metrics with Isolated Constructs

Name: _____ Netid: _____

Compute the WORK and CPL metrics for this program with a global isolated construct. Indicate if your answer depends on the execution order of isolated constructs. Since there may be multiple possible computation graphs (based on serialization edges), try and pick the worst-case CPL value across all computation graphs.

```
1.   finish(() -> {
2.        for (int i = 0; i < 5; i++) {
3.          async(() -> {
4.            doWork(2);
5.            isolated(() -> { doWork(1); });
6.            doWork(2);
7.          }); // async
8.        } // for
9.    }); // finish
```


Worksheet #21b: Abstract Metrics with Object-based Isolated Constructs

Compute the WORK and CPL metrics for this program with an object-based isolated construct. Indicate if your answer depends on the execution order of isolated constructs. Since there may be multiple possible computation graphs (based on serialization edges), try and pick the worst-case CPL value across all computation graphs.

```
1.   finish(() -> {
2.        // Assume X is an array of distinct objects
3.        for (int i = 0; i < 5; i++) {
4.          async(() -> {
5.            doWork(2);
6.            isolated(X[i], X[i+1],
7.                     () -> { doWork(1); });
8.            doWork(2);
9.          }); // async
10.       } // for
11.   }); // finish
```