

# Worksheet #33: impact of distribution on parallel completion time (instead of locality)

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Name: \_\_\_\_\_

Netid: \_\_\_\_\_

```
1. public void sampleKernel(  
2.     int iterations, int numChunks, Dist d) {  
3.     for (int iter = 0; iter < iterations; iter++) {  
4.         finish(() -> {  
5.             forseq (0, numChunks - 1, (jj) -> {  
6.                 asyncAt(dist.get(jj), () -> {  
7.                     perf.doWork(jj);  
8.                     // Assume that time to process chunk jj = jj units  
9.                 });  
10.            });  
11.        });  
12.        double[] temp = myNew; myNew = myVal; myVal = temp;  
13.    } // for iter  
14. } // sample kernel
```

- Assume an execution with  $n$  places, each place with one worker thread
- Will a block or cyclic distribution for  $d$  have a smaller abstract completion time, assuming that all tasks on the same place are serialized?

