Worksheet #34: impact of distribution on parallel completion time

Name: ________________________________          Net ID: ___________________

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

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