Worksheet #34: impact of distribution on parallel completion time

Name: ______ Net ID: _____

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

