

**Written Assignments (25 points)**

1.  $M \times \frac{N}{P}$ . With an array of size  $N$ , a chunk size of  $N/P$  corresponds with a block distribution. This leaves us with  $N/P$  chunks of data that we iterate over  $M$  times, or  $M \times \frac{N}{P}$  total remote reads using a block distribution.
2.  $M \times N$ . A chunk size of 1 corresponds with a cyclic distribution. So, by dividing  $N/1$ , we get  $N$  chunks, that we iterate over  $M$  times we would get  $M \times N$  total remote reads using a cyclic distribution.
3. Cyclic distributions lead to greater concurrency, and in this example, a greater number of remote reads than a block distribution would allow.