MPI: Practical 2 Solutions

1   Deadlock

The program initially deadlocks because the message size is large. When reduced, `MPI_Send` buffers the message and returns, so the code completes successfully.

When using OpenMPI 4.1.2, I found that the code deadlocked when `SIZE` was larger than 4040, but your MPI implementation may differ.

2   Send/Receive

See `sendrecv.cpp` and `sendrecv.f08`.

Note that even here, where the process is effectively serialized, the output lines may not be in ascending order.

3   Primes calculation

See `primes.cpp` and `primes_ms.cpp` for version 1 and 2, respectively.