

```

#include <mpi.h>

main(int argc, char *argv[]) {
    int myid, otherid, size;
    int length = 1, tag = 1;
    int myvalue, othervalue;
    MPI_Status status;

    /* initialize MPI and get own id (rank) */
    MPI_Init(&argc, &argv);
    MPI_Comm_size(MPI_COMM_WORLD, &size);
    MPI_Comm_rank(MPI_COMM_WORLD, &myid);

    if (myid == 0) {
        otherid = 1; myvalue = 14;
    } else {
        otherid = 0; myvalue = 25;
    }
    MPI_Send(&myvalue, length, MPI_INT, otherid,
            tag, MPI_COMM_WORLD);
    MPI_Recv(&othervalue, length, MPI_INT, MPI_ANY_SOURCE,
            tag, MPI_COMM_WORLD, &status);
    printf("process %d received a %d\n", myid, othervalue);
    MPI_Finalize();
}

```

Figure 7.17 MPI program to exchange values between two processes.