

Exercise 7

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Task 0 initializes a variable to a given value, then modifies the variable (for example, by calculating the square of its value) and finally broadcasts it to all the other tasks.

HINTS:

C

MPI_BCAST

```
int MPI_Bcast(void* buffer, int count, MPI_Datatype datatype, int root, MPI_Comm comm )
```

MPI_INIT

```
int MPI_Init(int *argc, char ***argv)
```

MPI_COMM_SIZE

```
int MPI_Comm_size(MPI_Comm comm, int *size)
```

MPI_COMM_RANK

```
int MPI_Comm_rank(MPI_Comm comm, int *rank)
```

MPI_FINALIZE

```
int MPI_Finalize(void)
```

FORTRAN

MPI_BCAST

```
MPI_BCAST(BUFFER, COUNT, DATATYPE, ROOT, COMM, IERROR)
<type> BUFFER(*)
INTEGER COUNT, DATATYPE, ROOT, COMM, IERROR
```

MPI_INIT

```
MPI_INIT(IERROR)
INTEGER IERROR
```

MPI_COMM_SIZE

```
MPI_COMM_SIZE(COMM, SIZE, IERROR)
INTEGER COMM, SIZE, IERROR
```

[< Solution 6](#)[up](#)[Solution 7 >](#)

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