1. Write an MPI program to send and print greetings message in parallel using:
   Method1: All processes send receive messages
   Method2: Process 0 receives and prints messages sent by other processes.

2. Write an MPI program to compute the area under the curve using trapezoidal rule.
3. Write an MPI program to compute the area under the curve using trapezoidal rule using MPI_Reduce and MPI_Allreduce.
4. Write an MPI program to read 2 vectors and print the sum vector using MPI_Scatter and MPI_Gather.

   $\mathbf{x} + \mathbf{y} = (x0, x1, \ldots, xn-1) + (y0, y1, \ldots, yn-1)$
   $= (x0 + y0, x1 + y1, \ldots, xn-1 + yn-1)$
   $= (z0, z1, \ldots, zn-1)$

5. Write a function get_input(int rank, int comm_size, double *a, double *b, int *n) to read 3 values viz. a (double), b (double) and n (int) on process 0 and send it to other processes. Rewrite the same function using MPI_Bcast() method.