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BE IT

**Assignment 3**

from mpi4py import MPI

import numpy as np

comm = MPI.COMM\_WORLD

rank = comm.rank

send\_buf = []

if rank == 0:

arr =np.array([12,21241,5131,1612251,161,6,161,1613,161363,12616,367,8363])

arr.shape = (3, 4)

send\_buf = arr

v = comm.scatter(send\_buf, root=0)

print("Local sum at rank{0}: {1}".format(comm.rank, np.sum(v)))

recvbuf = comm.reduce(v, root=0)

if comm.rank == 0:

global\_sum = np.sum(recvbuf)

print("Global sum: "+ str(global\_sum))



