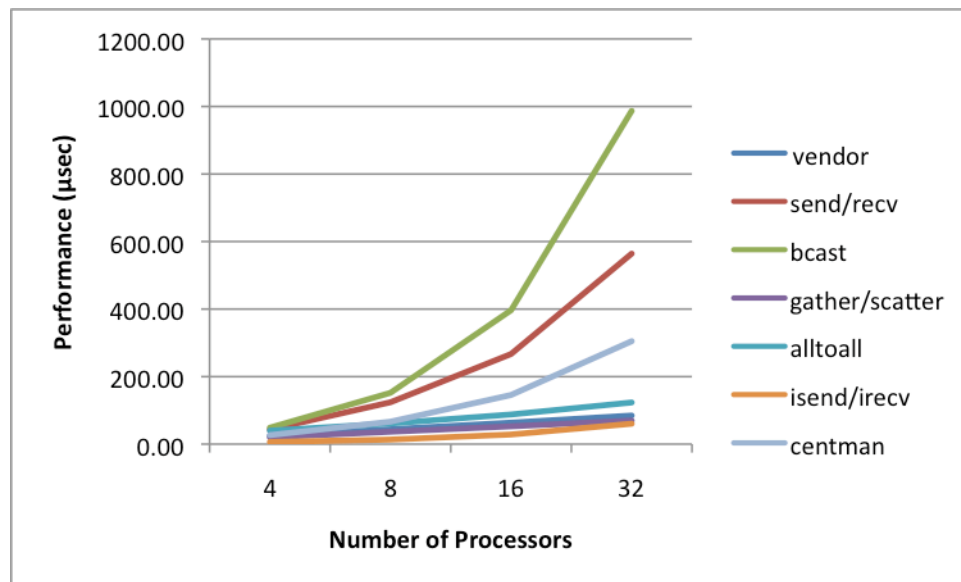


The following pages contain the source code for my solution to homework 5. This page shows the results (combined with results from homework 4) and some discussion.

Barrier	4	8	16	32
vendor	24.40	44.04	63.60	84.66
send/recv	43.24	124.03	266.95	564.17
bcast	48.73	152.08	396.59	986.83
gather/scatter	20.31	36.72	52.80	69.73
alltoall	39.87	61.35	87.88	123.40
isend/irecv	6.45	13.55	28.57	60.54
centman	26.71	66.53	145.62	304.87



It was surprising to see that both the **gather/scatter** barrier and the **isend/irecv** barrier outperformed the vendor **mpi_barrier** for all tests. The **alltoall** barrier had similar scaling properties, whereas the other three barriers (**bcast**, **send/recv**, and **central manager**) have very poor scaling properties.