

# MPI Exercises

- 1 Write a script that will have each processor randomly take a sample of size 1 of TRUE and FALSE. Have each processor print its result.
- 2 Modify the script in Exercise 1 above to determine if any processors sampled TRUE. Do the same to determine if all processors sampled TRUE. In each case, print the result. Compare to the functions `comm.all()` and `comm.any()`.
- 3

# DMAT Exercises

- ❶ Subsetting, selection, and filtering are basic matrix operations featured in R. The following may look silly, but it is useful for data processing. Let `x.dmat <- ddmatrix(1:30, 10, 3)`. Do the following:

- `y.dmat <- x.dmat[c(1, 5, 4, 3), ]`  
  `y.dmat <- x.dmat[c(10:3, 5, 5), ]`  
  `y.dmat <- x.dmat[1:5, 3:1]`
- `y.dmat <- x.dmat[x.dmat[, 2] > 13, ]`  
  `y.dmat <- x.dmat[x.dmat[, 2] > x.dmat[, 3], ]`  
  `y.dmat <- x.dmat[, x.dmat[2,] > x.dmat[3, ]]`  
  `y.dmat <- x.dmat[c(1, 3, 5), x.dmat[, 2] > x.dmat[, 3]]`