> set.seed(pi)

> nor <- rnorm(200, 6, 9)

> nor\_mid <- nor[nor>=4 & nor<=7]

> which(nor %in% nor\_mid)

[1] 6 7 23 29 38 47 71 80 86 96 100 117 120 144

[15] 157 197 198

> nor\_end <- nor[nor>=9 | nor<=3]

> rm(nor, nor\_mid, nor\_end)

> set.seed(1)

> num <- rchisq(1000, 8)

> quantile <- quantile(num, c(.4, .6))

> quantile

40% 60%

6.199193 8.099932

> hist(num[num >= quantile[1] & num <= quantile[2]])

> rm(num, quantile)

> linkedin <- c(16, 9, 13, 5, 2, 17, 14)

> facebook <- c(17, 7, 5, 16, 8, 13, 14)

> week <- c("Mon", "Tue", "Wed", "Thu", "Fri", "Sat", "Sun")

> names(linkedin) <- week

> names(facebook) <- week

> pop\_linkedin <- linkedin > 15

> pop\_linkedin

Mon Tue Wed Thu Fri Sat Sun

TRUE FALSE FALSE FALSE FALSE TRUE FALSE

> quiet\_linkedin <- linkedin <= 5

> quiet\_linkedin

Mon Tue Wed Thu Fri Sat Sun

FALSE FALSE FALSE TRUE TRUE FALSE FALSE

> compare <- linkedin > facebook

> compare

Mon Tue Wed Thu Fri Sat Sun

FALSE TRUE TRUE FALSE FALSE TRUE FALSE

> rm(compare, facebook, linkedin, pop\_linkedin, quiet\_linkedin, week)

> vec <- rnorm(1000, 0, 1)

> extreme <- as.character(vec < -1.96 | vec > 1.96)

> extreme <- replace(extreme, extreme == "FALSE", "0")

> trues <- length(extreme[extreme == "TRUE"])

> proportion <- (trues/1000)

> proportion

[1] 0.065

> rm(extreme, proportion, trues, vec)

> set.seed(pi)

> numbers <- sample(1:1000, 1000, replace=TRUE)

> numbers1 <- numbers %% 2 == 0

> length(numbers1[numbers1 == "TRUE"])

[1] 538

> rm(numbers, numbers1)

> salary <- c(54, 35, 65, 34, 67, 76, 100, 3, 154, 44, 37, 98, 254)

> name <- c("Tom", "Annie", "John", "Park", "Kim", "Bob", "Julia", "Ben", "Steven", "Nick", "Lee", "Rick", "Don")

> names(salary) <- name

> salary1 <- salary[name > "A" & name < "K"]

> salary1

Annie John Bob Julia Ben Don

35 65 76 100 3 254

> rm(name, salary, salary1)