lab4r_report.R

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```
x<- 1:5
x
```

```
## [1] 1 2 3 4 5
```

```
x <- 1:500
x
```

```
##   [1]   1   2   3   4   5   6   7   8   9  10  11  12  13  14  15  16  17  18
##  [19]  19  20  21  22  23  24  25  26  27  28  29  30  31  32  33  34  35  36
##  [37]  37  38  39  40  41  42  43  44  45  46  47  48  49  50  51  52  53  54
##  [55]  55  56  57  58  59  60  61  62  63  64  65  66  67  68  69  70  71  72
##  [73]  73  74  75  76  77  78  79  80  81  82  83  84  85  86  87  88  89  90
##  [91]  91  92  93  94  95  96  97  98  99 100 101 102 103 104 105 106 107 108
## [109] 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126
## [127] 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144
## [145] 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162
## [163] 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180
## [181] 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198
## [199] 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216
## [217] 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234
## [235] 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252
## [253] 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270
## [271] 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288
## [289] 289 290 291 292 293 294 295 296 297 298 299 300 301 302 303 304 305 306
## [307] 307 308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323 324
## [325] 325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342
## [343] 343 344 345 346 347 348 349 350 351 352 353 354 355 356 357 358 359 360
## [361] 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378
## [379] 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394 395 396
## [397] 397 398 399 400 401 402 403 404 405 406 407 408 409 410 411 412 413 414
## [415] 415 416 417 418 419 420 421 422 423 424 425 426 427 428 429 430 431 432
## [433] 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450
## [451] 451 452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468
## [469] 469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484 485 486
## [487] 487 488 489 490 491 492 493 494 495 496 497 498 499 500
```

```
x <- 1:5
x + 100
```

```
## [1] 101 102 103 104 105
```

```r
y <- c(100,1)
y
```

```
## [1] 100   1
```

```r
x + y
```

```
## Warning in x + y: longer object length is not a multiple of shorter object
## length
```

```
## [1] 101   3 103   5 105
```

```r
mean(x)
```

```
## [1] 3
```

```r
z<- c("barry", "amy", "chandra", "lisa")
z
```

```
## [1] "barry"   "amy"     "chandra" "lisa"
```

```r
paste(z, "loves r")
```

```
## [1] "barry loves r"   "amy loves r"     "chandra loves r" "lisa loves r"
```

```r
z<- c(TRUE, FALSE, FALSE, TRUE)
z
```

```
## [1]  TRUE FALSE FALSE  TRUE
```

```r
z+100
```

```
## [1] 101 100 100 101
```

```r
z+1
```

```
## [1] 2 1 1 2
```

```r
z+0
```

```
## [1] 1 0 0 1
```

```r
z
```

```
## [1]  TRUE FALSE FALSE  TRUE
```

```r
sum(z)
```

```
## [1] 2
```

```r
x
```

```
## [1] 1 2 3 4 5
```

```r
x>3
```

```
## [1] FALSE FALSE FALSE  TRUE  TRUE
```

```r
sum(x>3)
```

```
## [1] 2
```

```r
x>=3
```

```
## [1] FALSE FALSE  TRUE  TRUE  TRUE
```

```r
x!=3
```

```
## [1]  TRUE  TRUE FALSE  TRUE  TRUE
```

```r
x
```

```
## [1] 1 2 3 4 5
```

```r
x[3]
```

```
## [1] 3
```

```r
x[c(1,3)]
```

```
## [1] 1 3
```

```r
x[x>2]
```

```
## [1] 3 4 5
```

```r
x[-3]
```

```
## [1] 1 2 4 5
```

```
!x>2
```

```
## [1]  TRUE  TRUE FALSE FALSE FALSE
```

```
x[x!=2]
```

```
## [1] 1 3 4 5
```

```
y<-c(100, 1, "barry")
class(y)
```

```
## [1] "character"
```

```
df<-data.frame(numbs=1:5, chars=letters [1:5], log=c(T, T, F, T, F))
df
```

```
##   numbs chars   log
## 1     1     a  TRUE
## 2     2     b  TRUE
## 3     3     c FALSE
## 4     4     d  TRUE
## 5     5     e FALSE
```

```
df[3,2]
```

```
## [1] "c"
```

```
df["chars"]
```

```
##   chars
## 1     a
## 2     b
## 3     c
## 4     d
## 5     e
```

```
df[,2]
```

```
## [1] "a" "b" "c" "d" "e"
```

```
df[,c(1,3)]
```

```
##   numbs   log
## 1     1  TRUE
## 2     2  TRUE
## 3     3 FALSE
## 4     4  TRUE
## 5     5 FALSE
```

```r
df$chars
```

```
## [1] "a" "b" "c" "d" "e"
```

```r
#return all data where numbs>3
df$numbs>3
```

```
## [1] FALSE FALSE FALSE  TRUE  TRUE
```

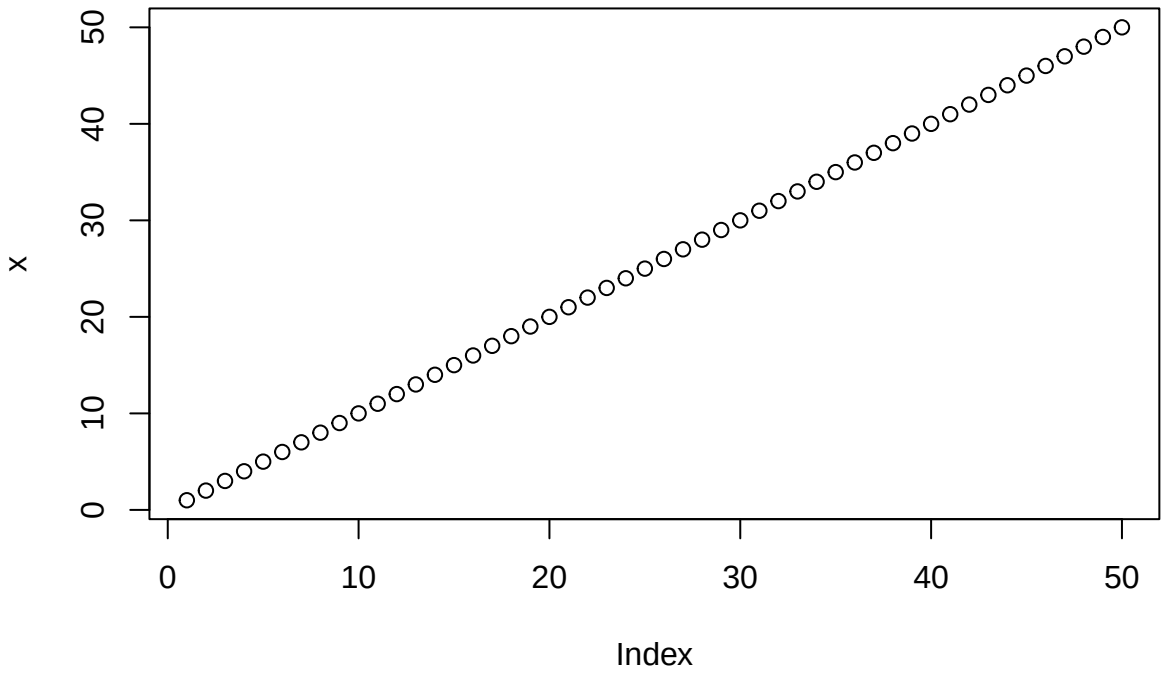
```r
subset(df, numbs>3)
```

```
##   numbs chars   log
## 4     4     d  TRUE
## 5     5     e FALSE
```

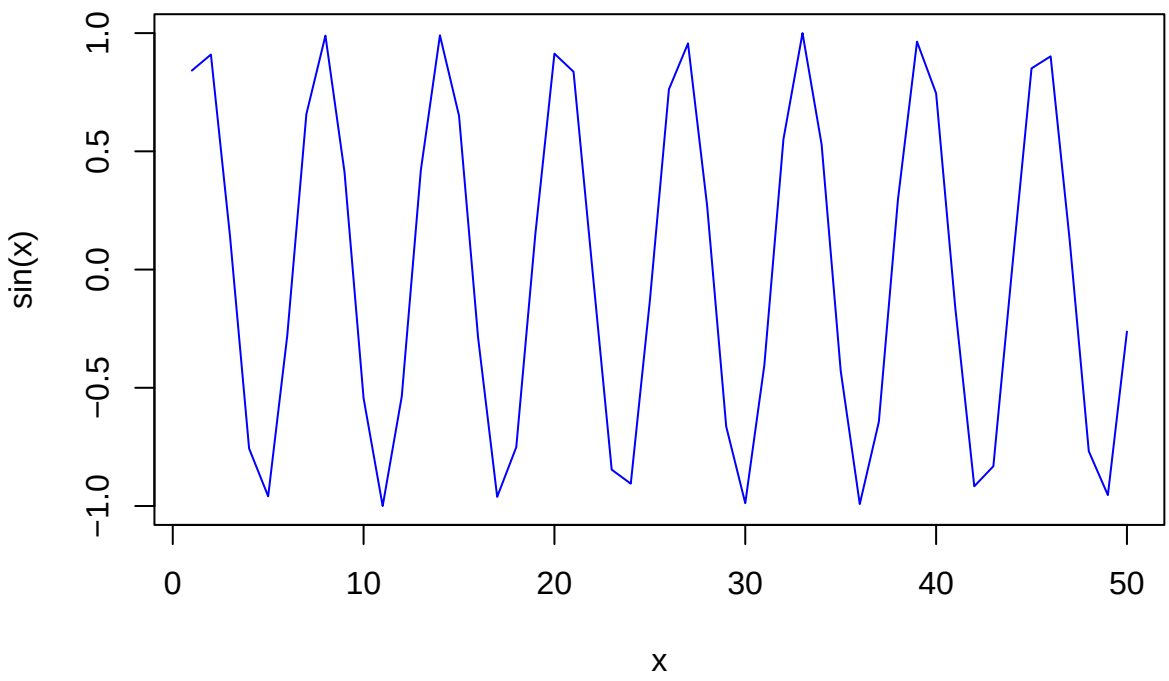
```r
#or
df[df$numbs>3,]
```

```
##   numbs chars   log
## 4     4     d  TRUE
## 5     5     e FALSE
```

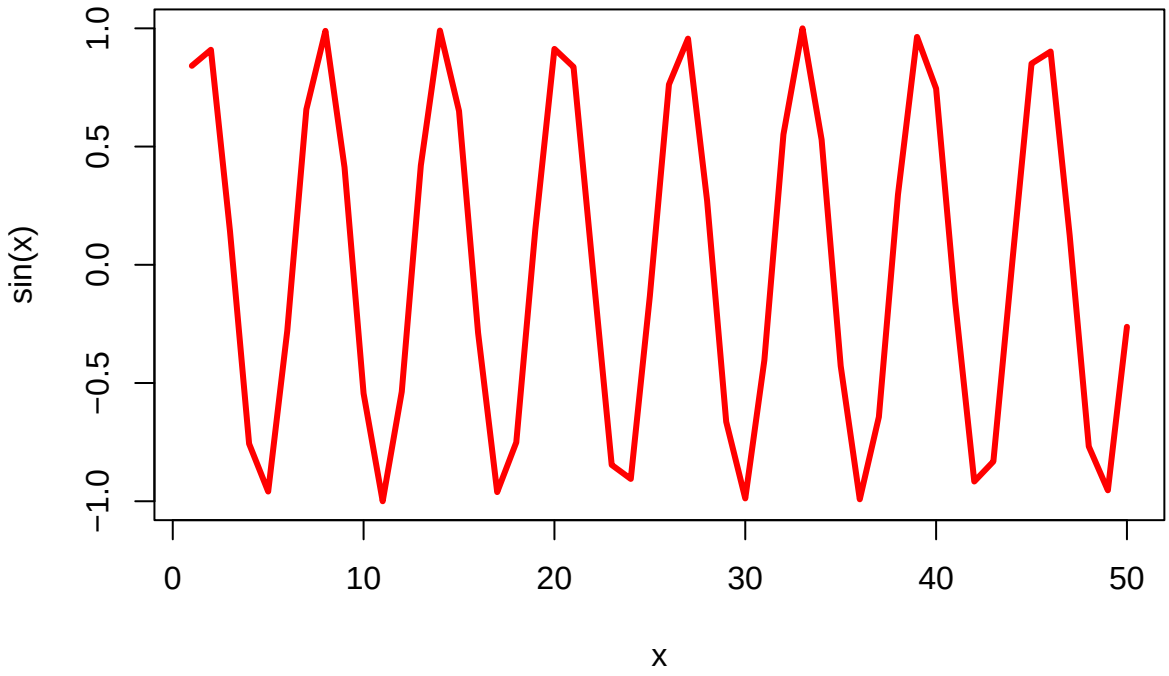
```r
x<-1:50
plot(x)
```



```
plot(x, sin(x), typ="l", col="blue")
```




```
plot(x=x, y=sin(x), col="red", typ="l", lwd="3")
```




```
log(10, base=2)
```

```
## [1] 3.321928
```