crosssecurity.r

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```r
#!/usr/bin/r

set.seed(12345)
n <- 24
drop <- 2
sex <- sample(c("M", "F"), n, replace=TRUE)
x1 <- 1:n
x2 <- sample(1:n)
extra <- c( rep(0, n - drop), floor(15 + 10 * rnorm(drop)) )
y1 <- x1 + 3*x2 + 6*(sex=="M") + floor(10 * rnorm(n)) + extra
y2 <- x1 - 2*x2 - 8*(sex=="M") + floor(10 * rnorm(n)) + extra
# assign non-zero weights to 'dropped' obs
wt <- c(rep(1, n-drop), rep(.2,drop))

X <- cbind(x1, x2)
Y <- cbind(y1, y2)
c(X)
```

```
##  [1]  1  2  3  4  5  6  7  8  9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24  1
## [26] 12 20  8 23  3  9 14 13  4 10  7  2 15 18 17 11 19  6 24  5 16 21 22
```

```r
c(X, w=wt)
```

```
##
##  1.0  2.0  3.0  4.0  5.0  6.0  7.0  8.0  9.0 10.0 11.0 12.0 13.0 14.0 15.0 16.0
##
## 17.0 18.0 19.0 20.0 21.0 22.0 23.0 24.0  1.0 12.0 20.0  8.0 23.0  3.0  9.0 14.0
##
## 13.0  4.0 10.0  7.0  2.0 15.0 18.0 17.0 11.0 19.0  6.0 24.0  5.0 16.0 21.0 22.0
##   w1   w2   w3   w4   w5   w6   w7   w8   w9  w10  w11  w12  w13  w14  w15  w16
##  1.0  1.0  1.0  1.0  1.0  1.0  1.0  1.0  1.0  1.0  1.0  1.0  1.0  1.0  1.0  1.0
##  w17  w18  w19  w20  w21  w22  w23  w24
##  1.0  1.0  1.0  1.0  1.0  1.0  0.2  0.2
```

```r
c(X, Y)
```

```
##  [1]    1    2    3    4    5    6    7    8    9   10   11   12   13   14   15   16   17   18   19
## [20]   20   21   22   23   24    1   12   20    8   23    3    9   14   13    4   10    7    2   15
## [39]   18   17   11   19    6   24    5   16   21   22   25   64   79   30   78   11   17   73   54
## [58]   33   17   22   28   73   83   58   55   80   29   86   55   76  102  106    1  -24  -29    9
## [77]  -65    1  -25  -23  -10   -4  -28    6   24  -19  -34  -26  -13  -31   22  -14   20  -10  -15
## [96]    7
```

```r
c(X, Y, w=wt)
```

```
## 
##    1.0    2.0    3.0    4.0    5.0    6.0    7.0    8.0    9.0   10.0   11.0   12.0   13.0
## 
##   14.0   15.0   16.0   17.0   18.0   19.0   20.0   21.0   22.0   23.0   24.0    1.0   12.0
## 
##   20.0    8.0   23.0    3.0    9.0   14.0   13.0    4.0   10.0    7.0    2.0   15.0   18.0
## 
##   17.0   11.0   19.0    6.0   24.0    5.0   16.0   21.0   22.0   25.0   64.0   79.0   30.0
## 
##   78.0   11.0   17.0   73.0   54.0   33.0   17.0   22.0   28.0   73.0   83.0   58.0   55.0
## 
##   80.0   29.0   86.0   55.0   76.0  102.0  106.0    1.0  -24.0  -29.0    9.0  -65.0    1.0
## 
##  -25.0  -23.0  -10.0   -4.0  -28.0    6.0   24.0  -19.0  -34.0  -26.0  -13.0  -31.0   22.0
##                                                       w1     w2     w3     w4     w5     w6     w7     w8
##  -14.0   20.0  -10.0  -15.0    7.0    1.0    1.0    1.0    1.0    1.0    1.0    1.0    1.0
##     w9    w10    w11    w12    w13    w14    w15    w16    w17    w18    w19    w20    w21
##    1.0    1.0    1.0    1.0    1.0    1.0    1.0    1.0    1.0    1.0    1.0    1.0    1.0
##    w22    w23    w24
##    1.0    0.2    0.2
```

```r
c(x1, y1)
```

```
## [1]   1   2   3   4   5   6   7   8   9  10  11  12  13  14  15  16  17  18  19
## [20]  20  21  22  23  24  25  64  79  30  78  11  17  73  54  33  17  22  28  73
## [39]  83  58  55  80  29  86  55  76 102 106
```

```r
c(x1, y1, w=wt)
```

```
## 
##    1.0    2.0    3.0    4.0    5.0    6.0    7.0    8.0    9.0   10.0   11.0   12.0   13.0
## 
##   14.0   15.0   16.0   17.0   18.0   19.0   20.0   21.0   22.0   23.0   24.0   25.0   64.0
## 
##   79.0   30.0   78.0   11.0   17.0   73.0   54.0   33.0   17.0   22.0   28.0   73.0   83.0
##                                                                       w1     w2     w3     w4
##   58.0   55.0   80.0   29.0   86.0   55.0   76.0  102.0  106.0    1.0    1.0    1.0    1.0
##     w5     w6     w7     w8     w9    w10    w11    w12    w13    w14    w15    w16    w17
##    1.0    1.0    1.0    1.0    1.0    1.0    1.0    1.0    1.0    1.0    1.0    1.0    1.0
##    w18    w19    w20    w21    w22    w23    w24
##    1.0    1.0    1.0    1.0    1.0    0.2    0.2
```