# Homework 03

## shiva kumar peddapuram

### Instructions

- Do not make changes to this file above this line.
- Do not change the statements of the questions
- Insert your computations in the "code chunks" provided (between three backtics)
- Add textual answers, outside the code chunks
- Click on the "Knit" button above in order to run the computations and create the pdf file (you might have to allow pop-ups in your web browser to see the pdf)
- Upload the final PDF file to the Homework 3 assignment in Canvas.

### Questions

For the questions in this homework assignment you are allowed to use the function t.test.

1. Generate a sample of size n=20 of random numbers from the standard normal distribution, and store them in a vector called X. Find a 95% confidence interval for the mean, based on the t distribution.

```
X = rnorm(20)
                ## creating and storing a sample of size 20
my.test <- t.test(X,conf.level = 0.95,mu=0) ## finding 95% confidence interval by using conf.level func
names(my.test) ## knowing the names of the interval
                                                   "conf.int"
                                                                 "estimate"
##
    [1] "statistic"
                      "parameter"
                                     "p.value"
    [6] "null.value"
                      "stderr"
                                     "alternative" "method"
                                                                 "data.name"
my.test$conf.int
## [1] -0.6420509 0.1563736
## attr(,"conf.level")
## [1] 0.95
N=mean(X)
            #mean for X
  ##knowing the values of A
```

```
## [1] -0.2428387
```

Does the interval contain the true value of  $\mu$ ? Answer: Yes,if we take the true value of mu = 0 then the interval contains in the value.

2. Repeat the steps in Question 1 10,000 times. Record whether each time the interval contained  $\mu$  or not into a logical (boolean) vector of length 10,000, called contained.

```
nrep <- 10000 ##taking repettion till 10,000
maxs <- rep(0,nrep) ##assigning max
mins <- rep(0,nrep) ## assigning mins
for(i in 1:nrep){
  X < - rnorm(20)
  my.test<- t.test(X,conf.level=0.95,mu=0)
  maxs[i] <- my.test$conf.int[2]</pre>
  mins[i] <- my.test$conf.int[1]</pre>
}
my.test$conf.int
## [1] -0.2589772 0.5064298
## attr(,"conf.level")
## [1] 0.95
contained <- mins < 0 & maxs >0
table(contained)/nrep
## contained
   FALSE
            TRUE
## 0.0481 0.9519
```

#### contained

```
##
       [1]
             TRUE
                   TRUE
                          TRUE
                                 TRUE
                                       TRUE
                                              TRUE
                                                    TRUE
                                                           TRUE
                                                                  TRUE
                                                                       TRUE
                                                                               TRUE
                                                                                     TRUE
##
                          TRUE
                                 TRUE
                                                                               TRUE
      [13]
             TRUE
                   TRUE
                                       TRUE
                                              TRUE
                                                    TRUE
                                                           TRUE
                                                                  TRUE FALSE
                                                                                     TRUE
##
      [25]
             TRUE FALSE
                          TRUE
                                 TRUE
                                       TRUE
                                              TRUE
                                                    TRUE
                                                           TRUE
                                                                  TRUE
                                                                        TRUE
                                                                               TRUE
                                                                                     TRUE
##
      [37]
             TRUE
                   TRUE
                          TRUE
                                 TRUE
                                       TRUE
                                              TRUE
                                                    TRUE
                                                           TRUE
                                                                  TRUE
                                                                        TRUE
                                                                               TRUE FALSE
##
      [49]
             TRUE
                   TRUE
                          TRUE
                                 TRUE
                                       TRUE
                                              TRUE
                                                    TRUE
                                                           TRUE
                                                                  TRUE
                                                                        TRUE
                                                                               TRUE
                                                                                     TRUE
##
      [61]
             TRUE
                   TRUE
                          TRUE
                                 TRUE
                                       TRUE
                                              TRUE
                                                    TRUE
                                                           TRUE
                                                                  TRUE
                                                                        TRUE
                                                                               TRUE
                                                                                     TRUE
##
      [73]
             TRUE FALSE
                          TRUE
                                 TRUE
                                       TRUE
                                              TRUE
                                                    TRUE
                                                           TRUE
                                                                  TRUE
                                                                        TRUE
                                                                               TRUE
                                                                                     TRUE
##
      [85]
             TRUE
                   TRUE
                          TRUE
                                 TRUE
                                       TRUE
                                              TRUE
                                                    TRUE
                                                           TRUE
                                                                  TRUE
                                                                        TRUE
                                                                               TRUE
##
      [97]
             TRUE
                   TRUE
                          TRUE
                                 TRUE
                                       TRUE
                                              TRUE
                                                    TRUE
                                                           TRUE
                                                                  TRUE
                                                                        TRUE
                                                                               TRUE
                                                                                     TRUE
##
     [109]
             TRUE
                   TRUE
                          TRUE
                                 TRUE
                                       TRUE
                                              TRUE
                                                    TRUE
                                                           TRUE
                                                                  TRUE
                                                                        TRUE
                                                                               TRUE
                                                                                     TRUE
##
                          TRUE
                                 TRUE
                                       TRUE
                                              TRUE
                                                    TRUE
                                                           TRUE
                                                                  TRUE
                                                                        TRUE FALSE
     [121]
             TRUE
                   TRUE
                                                                                     TRUE
                          TRUE
                                 TRUE
                                       TRUE
                                              TRUE
                                                    TRUE
                                                           TRUE
                                                                  TRUE
                                                                        TRUE
                                                                               TRUE
##
     [133]
             TRUE
                   TRUE
                                                                                     TRUE
##
     [145]
             TRUE
                   TRUE
                          TRUE
                                 TRUE
                                       TRUE
                                              TRUE
                                                    TRUE
                                                           TRUE
                                                                  TRUE
                                                                        TRUE
                                                                               TRUE
                                                                                     TRUE
                                TRUE
                                       TRUE
                                                                        TRUE
##
     [157]
             TRUE
                   TRUE
                          TRUE
                                              TRUE
                                                    TRUE
                                                           TRUE
                                                                  TRUE
                                                                               TRUE
                                                                                     TRUE
##
     [169]
             TRUE
                   TRUE
                          TRUE
                                 TRUE
                                       TRUE
                                              TRUE
                                                    TRUE
                                                           TRUE
                                                                  TRUE
                                                                        TRUE FALSE
                                                                                     TRUE
##
     [181]
             TRUE
                   TRUE
                          TRUE
                                 TRUE
                                       TRUE
                                              TRUE
                                                    TRUE
                                                           TRUE
                                                                  TRUE
                                                                        TRUE
                                                                               TRUE
                                                                                     TRUE
                                                                        TRUE
##
           FALSE
                   TRUE
                          TRUE
                                 TRUE
                                       TRUE
                                              TRUE
                                                    TRUE
                                                           TRUE
                                                                  TRUE
                                                                               TRUE
                                                                                     TRUE
     [193]
##
     [205]
             TRUE FALSE
                          TRUE
                                 TRUE
                                       TRUE
                                              TRUE
                                                    TRUE
                                                           TRUE
                                                                  TRUE
                                                                        TRUE
                                                                               TRUE
                                                                                     TRUE
                                              TRUE
                                                    TRUE
                                                           TRUE
                                                                        TRUE
                                                                               TRUE
                                                                                     TRUE
##
     [217]
             TRUE
                   TRUE
                          TRUE
                                 TRUE
                                       TRUE
                                                                  TRUE
##
     [229]
             TRUE
                   TRUE
                          TRUE
                                 TRUE
                                       TRUE
                                              TRUE
                                                    TRUE
                                                           TRUE
                                                                  TRUE
                                                                        TRUE
                                                                               TRUE
                                                                                     TRUE
##
     [241]
             TRUE
                   TRUE
                          TRUE FALSE
                                       TRUE
                                              TRUE
                                                    TRUE
                                                           TRUE
                                                                  TRUE
                                                                        TRUE
                                                                               TRUE
                                                                                     TRUE
##
                                       TRUE
                                                           TRUE
                                                                  TRUE
                                                                        TRUE
                                                                               TRUE
     [253]
             TRUE
                   TRUE
                          TRUE
                                TRUE
                                              TRUE
                                                    TRUE
                                                                                    TRUE
##
     [265]
             TRUE
                   TRUE
                          TRUE
                                 TRUE
                                       TRUE
                                              TRUE
                                                    TRUE
                                                           TRUE
                                                                  TRUE
                                                                        TRUE
                                                                               TRUE FALSE
##
                          TRUE
                                 TRUE
                                                                  TRUE
                                                                        TRUE
                                                                               TRUE FALSE
     [277]
             TRUE
                   TRUE
                                       TRUE FALSE
                                                    TRUE
                                                           TRUE
##
     [289]
             TRUE
                   TRUE
                          TRUE
                                 TRUE
                                       TRUE
                                              TRUE
                                                    TRUE
                                                           TRUE
                                                                  TRUE
                                                                        TRUE
                                                                               TRUE
                                                                                     TRUE
##
     [301]
             TRUE
                   TRUE
                          TRUE
                                 TRUE
                                       TRUE
                                              TRUE
                                                    TRUE
                                                           TRUE
                                                                  TRUE
                                                                        TRUE
                                                                               TRUE
                                                                                     TRUE
##
     [313]
                   TRUE
                          TRUE
                                TRUE
                                       TRUE
                                              TRUE
                                                    TRUE
                                                           TRUE
                                                                  TRUE
                                                                        TRUE
                                                                               TRUE
                                                                                     TRUE
             TRUE
                                              TRUE FALSE
     [325]
                   TRUE
                          TRUE FALSE
                                       TRUE
                                                           TRUE
                                                                  TRUE
                                                                        TRUE
                                                                               TRUE
##
             TRUE
                                                                                    TRUE
```

## [337] TRUE FALSE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [349] TRUE [361] TRUE TRUE ## TRUE ## [373] TRUE TRUE TRUE TRUE ## [385] TRUE ## [397] TRUE ## [409] TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE [421]TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE ## TRUE TRUE TRUE ## [433] TRUE ## TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE [445] FALSE TRUE ## [457]TRUE TRUE [469] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE FALSE TRUE [481] TRUE TRUE ## TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE ## [493] **FALSE** TRUE ## [505] TRUE ## [517] TRUE ## [529] TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [541] TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE ## [553] TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE ## [565] TRUE TRUE TRUE TRUE FALSE TRUE FALSE ## [577] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [589] TRUE TRUE FALSE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE ## [601] TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE [613]TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## ## [625]TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [637] TRUE FALSE ## [649] TRUE [661] TRUE FALSE TRUE ## [673] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE ## TRUE TRUE [685] TRUE TRUE TRUE TRUE ## TRUE ## [697] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [709] TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE FALSE ## [721]TRUE TRUE TRUE TRUE ## [733] TRUE ## [745]TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [757] TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [769] TRUE ## [781] TRUE FALSE ## [793] TRUE ## [805] TRUE ## [817] TRUE ## [829] TRUE FALSE [841] TRUE FALSE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE ## [853] TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE ## [865] TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE [877] TRUE ## TRUE [889] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE ## [901] TRUE ## [913] TRUE [925] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE ## [937] TRUE [949] TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE TRUE FALSE FALSE TRUE ## [961] TRUE FALSE TRUE [973] TRUE ## TRUE TRUE

## [985] TRUE ## [997] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE ## [1009] TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE [1021] TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE ## TRUE TRUE TRUE TRUE ## [1033] TRUE ## [1045] TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE ## [1057] TRUE [1069] TRUE ## TRUE TRUE ## [1081] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE ## TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE [1093] TRUE TRUE TRUE FALSE ## [1105] TRUE FALSE TRUE ## [1117]TRUE TRUE TRUE TRUE TRUE TRUE ## [1129] TRUE FALSE ## [1141] TRUE ## [1153] TRUE ## [1165] TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE FALSE ## [1177] TRUE FALSE TRUE ## [1189] TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [1201] TRUE ## [1213]TRUE TRUE ## [1225] TRUE ## [1237] TRUE ## [1249] TRUE [1261] TRUE ## TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [1273]TRUE TRUE TRUE ## [1285] TRUE ## [1297] TRUE [1309] TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE ## TRUE ## TRUE TRUE TRUE TRUE TRUE TRUE [1321] TRUE TRUE TRUE TRUE TRUE TRUE [1333] TRUE FALSE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [1345] TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE ## [1357] TRUE TRUE TRUE FALSE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE [1369] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE ## [1381] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE ## [1393] TRUE ## [1405] TRUE ## [1417]TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [1429] TRUE FALSE TRUE ## [1441] FALSE TRUE ## [1453] TRUE ## [1465] TRUE ## [1477]TRUE TRUE [1489] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE ## [1501] TRUE ## [1513] TRUE [1525] TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE ## TRUE FALSE TRUE [1537] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE ## [1549] TRUE ## [1561] TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE ## [1573] TRUE TRUE TRUE TRUE TRUE ## [1585] **FALSE** TRUE ## [1597] TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE ## [1609] TRUE ## [1621] FALSE TRUE TRUE

## [1633] TRUE FALSE ## [1645] TRUE FALSE FALSE TRUE ## [1657] TRUE TRUE TRUE TRUE TRUE FALSE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [1669] TRUE TRUE TRUE TRUE TRUE TRUE ## [1681] TRUE ## [1693] TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [1705] TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE [1717] TRUE TRUE TRUE TRUE TRUE TRUE FALSE ## TRUE TRUE FALSE TRUE TRUE ## [1729] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE ## TRUE TRUE TRUE TRUE TRUE TRUE [1741]TRUE TRUE TRUE TRUE TRUE TRUE ## [1753] TRUE ## [1765] TRUE TRUE TRUE TRUE TRUE TRUE ## [1777] TRUE ## [1789] TRUE FALSE ## [1801] TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE ## [1813] TRUE ## [1825] TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [1837] TRUE FALSE TRUE ## [1849] TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [1861] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE ## [1873] TRUE FALSE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE ## [1885] TRUE ## [1897] TRUE [1909] TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [1921]TRUE TRUE TRUE TRUE TRUE ## [1933] FALSE TRUE ## [1945] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE [1957] TRUE TRUE TRUE FALSE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE ## [1969] TRUE TRUE FALSE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE FALSE [1981] TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE [1993] TRUE TRUE ## TRUE ## [2005] TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE [2017] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE ## [2029] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE ## [2041] TRUE ## [2053] TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE ## [2065] TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE ## [2077] TRUE ## [2089] TRUE ## [2101] TRUE [2113] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE ## [2125] TRUE FALSE [2137] TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE TRUE TRUE [2149] TRUE TRUE FALSE TRUE TRUE TRUE ## [2161] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE [2173] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE [2185] TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE FALSE TRUE TRUE TRUE ## [2197] TRUE ## [2209] TRUE [2221] TRUE TRUE TRUE TRUE FALSE TRUE TRUE ## TRUE TRUE TRUE TRUE TRUE ## [2233] TRUE ## [2245]TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE ## [2257] TRUE ## [2269] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE

## [2281] TRUE ## [2293] TRUE TRUE FALSE TRUE ## [2305] TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE FALSE [2317] TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [2329] TRUE ## [2341] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE ## [2353] TRUE [2365] TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE FALSE TRUE TRUE TRUE TRUE TRUE FALSE ## [2377] FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE TRUE [2389] TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [2401] **FALSE** TRUE ## [2413] TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [2425] TRUE ## [2437] TRUE ## [2449] TRUE FALSE TRUE ## [2461] TRUE TRUE TRUE FALSE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE ## [2473] TRUE FALSE TRUE ## [2485] TRUE ## [2497] TRUE FALSE ## [2509] TRUE ## [2521] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE ## [2533] TRUE ## [2545] TRUE [2557] TRUE ## TRUE TRUE TRUE TRUE TRUE ## [2569] TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [2581] TRUE ## [2593] TRUE [2605] TRUE ## TRUE TRUE TRUE TRUE TRUE TRUE ## [2617] TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE [2629] TRUE TRUE TRUE FALSE ## TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [2641] TRUE ## [2653] TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE FALSE [2665] TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE TRUE [2677] TRUE ## TRUE ## [2689] TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE ## [2701] TRUE TRUE TRUE FALSE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE ## [2713]TRUE TRUE ## [2725] TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE ## [2737] TRUE ## [2749] TRUE [2761] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE ## [2773] TRUE TRUE FALSE FALSE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE [2785] TRUE TRUE TRUE TRUE TRUE TRUE ## FALSE TRUE TRUE TRUE TRUE FALSE ## TRUE TRUE TRUE TRUE TRUE [2797] TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [2809] TRUE [2821] TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE TRUE [2833] TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE TRUE ## [2845] TRUE ## [2857] TRUE ## [2869] TRUE TRUE TRUE TRUE TRUE ## [2881] TRUE ## [2893] TRUE ## [2905] FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE FALSE TRUE TRUE ## [2917] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE

## [2929] TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [2941] TRUE FALSE TRUE ## [2953] TRUE [2965] TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE TRUE TRUE ## [2977] TRUE FALSE ## [2989] TRUE ## [3001] TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE [3013] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE ## [3025] FALSE TRUE ## TRUE TRUE TRUE FALSE TRUE TRUE [3037] TRUE TRUE TRUE TRUE TRUE TRUE [3049] ## TRUE ## [3061] TRUE TRUE TRUE TRUE [3073] TRUE ## TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE ## [3085] TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [3097] TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE ## [3109] TRUE ## [3121] TRUE ## [3133] TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE [3145] TRUE ## ## [3157] TRUE TRUE TRUE TRUE TRUE FALSE FALSE TRUE TRUE TRUE TRUE TRUE ## [3169] TRUE ## [3181] TRUE ## [3193] TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE [3205] TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [3217]TRUE TRUE TRUE TRUE TRUE ## [3229] TRUE ## [3241] TRUE TRUE TRUE TRUE FALSE TRUE FALSE TRUE TRUE TRUE TRUE FALSE [3253] TRUE ## TRUE ## TRUE TRUE TRUE TRUE FALSE FALSE FALSE [3265] TRUE TRUE TRUE TRUE TRUE TRUE [3277] ## TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE ## [3289] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE ## [3301] TRUE ## [3313] TRUE TRUE TRUE TRUE [3325] TRUE ## TRUE ## [3337] TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE FALSE ## [3349] TRUE TRUE TRUE FALSE FALSE TRUE TRUE FALSE TRUE TRUE TRUE TRUE ## [3361] TRUE TRUE FALSE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE ## [3373] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE ## [3385] TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE ## [3397] TRUE [3409] TRUE FALSE TRUE ## ## [3421] TRUE [3433] TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE [3445] TRUE TRUE TRUE ## [3457] TRUE [3469] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE [3481] TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE TRUE TRUE ## [3493] TRUE ## [3505] TRUE [3517] TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [3529] TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [3541] TRUE ## [3553] TRUE FALSE TRUE [3565] ## TRUE TRUE TRUE FALSE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE

## [3577] FALSE TRUE TRUE TRUE FALSE TRUE TRUE TRUE FALSE TRUE TRUE TRUE ## TRUE [3589] TRUE ## [3601] TRUE ## [3613] TRUE TRUE TRUE TRUE TRUE TRUE ## [3625] TRUE ## [3637] TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE ## [3649] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE [3661] TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE **FALSE** TRUE ## [3673] TRUE FALSE ## TRUE TRUE TRUE TRUE TRUE TRUE [3685] TRUE TRUE TRUE TRUE TRUE TRUE ## [3697] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE ## [3709] TRUE TRUE TRUE TRUE TRUE [3721] TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [3733] TRUE ## [3745] TRUE ## [3757] TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE ## [3769] TRUE ## [3781] TRUE ## [3793] TRUE ## [3805] TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE FALSE TRUE ## [3817] TRUE ## [3829] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE ## [3841] TRUE [3853] TRUE TRUE TRUE TRUE TRUE TRUE FALSE FALSE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE TRUE TRUE FALSE ## [3865] TRUE TRUE TRUE TRUE TRUE ## [3877] TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE ## [3889] **FALSE** TRUE [3901] TRUE ## ## TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE [3913] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [3925] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [3937] TRUE TRUE TRUE TRUE TRUE TRUE TRUE **FALSE** TRUE TRUE ## [3949] TRUE [3961] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE ## [3973] TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [3985] TRUE ## [3997] TRUE ## [4009]TRUE TRUE ## [4021] TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE ## [4033]TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE **FALSE** TRUE TRUE TRUE ## [4045]TRUE TRUE FALSE TRUE FALSE TRUE [4057] TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE ## [4069] TRUE [4081] TRUE TRUE TRUE TRUE FALSE TRUE TRUE ## TRUE TRUE TRUE TRUE TRUE ## [4093] TRUE FALSE TRUE ## [4105] TRUE [4117] TRUE ## TRUE TRUE [4129] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE ## [4141]TRUE TRUE ## [4153]TRUE TRUE ## [4165]TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [4177]TRUE TRUE ## [4189]TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [4201] TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [4213]TRUE TRUE TRUE

## [4225] FALSE TRUE ## [4237] TRUE FALSE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE ## [4249]TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE [4261] TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [4273]TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [4285] TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [4297] TRUE [4309] TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE FALSE TRUE FALSE ## [4321] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE **FALSE** TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE TRUE [4333]TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [4345] TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE ## [4357] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [4369] TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE ## [4381] TRUE ## [4393] TRUE ## [4405] TRUE ## [4417] TRUE ## [4429] TRUE ## [4441]TRUE TRUE ## [4453]TRUE TRUE ## [4465]TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE ## [4477]TRUE TRUE ## [4489]TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE [4501] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE ## TRUE TRUE TRUE TRUE ## [4513]TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [4525]TRUE TRUE ## [4537]TRUE TRUE [4549] TRUE ## TRUE TRUE TRUE TRUE TRUE TRUE ## [4561] TRUE ## [4573] TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE ## [4585]TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [4597]TRUE TRUE ## [4609] **FALSE** TRUE TRUE TRUE ## [4621] TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE ## [4633] TRUE ## [4645]TRUE TRUE ## [4657]TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE ## [4669]TRUE TRUE ## [4681] TRUE ## [4693] TRUE ## [4705]TRUE FALSE TRUE ## [4717]TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE [4729]TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE TRUE TRUE [4741]TRUE TRUE TRUE TRUE TRUE TRUE ## [4753] TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE FALSE TRUE TRUE TRUE [4765] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE [4777]TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [4789] TRUE FALSE TRUE FALSE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE ## [4801] TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE ## [4813] TRUE TRUE TRUE TRUE FALSE TRUE ## [4825] TRUE ## [4837]TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE ## [4849] TRUE ## [4861]TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE

## [4873] TRUE FALSE TRUE ## [4885] TRUE ## [4897]TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE [4909] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE ## TRUE TRUE TRUE ## [4921] TRUE FALSE TRUE ## [4933] TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE ## [4945] TRUE [4957]TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE FALSE TRUE TRUE TRUE FALSE ## [4969]TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [4981] TRUE ## [4993] TRUE TRUE FALSE TRUE ## [5005] TRUE TRUE TRUE TRUE TRUE [5017] TRUE TRUE ## TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE FALSE TRUE TRUE ## [5029] TRUE ## [5041] TRUE FALSE TRUE ## [5053] TRUE ## [5065] TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [5077] TRUE ## [5089] TRUE ## [5101] TRUE FALSE TRUE ## [5113] TRUE FALSE TRUE ## [5125] TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE ## [5137] TRUE [5149] TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [5161] TRUE TRUE TRUE TRUE TRUE ## [5173] TRUE FALSE TRUE ## [5185] TRUE [5197] FALSE FALSE TRUE ## ## [5209] TRUE [5221] TRUE ## TRUE FALSE TRUE TRUE TRUE TRUE FALSE TRUE FALSE TRUE FALSE TRUE TRUE TRUE ## [5233] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [5245] TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE ## [5257] TRUE TRUE TRUE TRUE ## [5269] TRUE ## [5281] TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [5293] **FALSE** TRUE ## [5305] TRUE ## [5317] TRUE ## [5329] TRUE FALSE ## [5341] TRUE ## [5353] TRUE ## [5365] TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE [5377] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE ## [5389] TRUE ## [5401] FALSE TRUE ## [5413] TRUE TRUE [5425] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE ## [5437] TRUE ## [5449] TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE ## [5461] TRUE TRUE TRUE TRUE TRUE TRUE ## [5473] TRUE ## [5485] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [5497] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE ## [5509] FALSE TRUE TRUE FALSE TRUE TRUE FALSE TRUE TRUE TRUE TRUE

## [5521] TRUE ## [5533] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE ## [5545] TRUE FALSE [5557] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE ## [5569] TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE ## [5581] TRUE ## [5593] TRUE FALSE TRUE [5605] TRUE ## TRUE TRUE ## [5617] TRUE ## TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE [5629] TRUE TRUE TRUE [5641] ## FALSE TRUE FALSE TRUE ## [5653] TRUE TRUE TRUE TRUE [5665] TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [5677] TRUE ## [5689] TRUE ## [5701] TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE ## [5713] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE ## [5725] **FALSE** TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE ## [5737] TRUE ## [5749] TRUE ## [5761] TRUE ## [5773] TRUE [5785] TRUE TRUE ## TRUE [5797] TRUE FALSE FALSE ## ## [5809] TRUE FALSE TRUE ## [5821] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE ## [5833] TRUE TRUE TRUE TRUE FALSE TRUE TRUE **FALSE** TRUE TRUE TRUE TRUE [5845] TRUE ## ## TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE [5857] TRUE TRUE TRUE TRUE [5869] TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE TRUE TRUE [5881] TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [5893] TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE [5905] TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE TRUE ## [5917] TRUE FALSE TRUE TRUE TRUE ## [5929] TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE FALSE ## [5941] TRUE FALSE TRUE ## [5953] TRUE ## [5965] TRUE ## [5977] TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [5989] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE ## [6001] TRUE ## [6013] TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE [6025]TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE ## [6037] TRUE ## [6049] TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE [6061] TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE ## TRUE TRUE FALSE TRUE [6073] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE ## [6085]TRUE TRUE ## [6097] TRUE [6109] TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE **FALSE** TRUE TRUE ## [6121] TRUE FALSE TRUE FALSE TRUE TRUE TRUE TRUE TRUE ## [6133]TRUE FALSE TRUE TRUE TRUE ## [6145]TRUE TRUE TRUE TRUE FALSE FALSE TRUE TRUE TRUE TRUE TRUE TRUE ## [6157]TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE

## [6169] TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE ## [6181] FALSE TRUE ## [6193]TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE [6205] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE ## [6217]TRUE TRUE ## [6229] TRUE ## [6241] TRUE FALSE TRUE [6253] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE FALSE TRUE FALSE ## [6265]TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE FALSE TRUE ## TRUE TRUE TRUE TRUE FALSE [6277]TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [6289] TRUE TRUE TRUE FALSE TRUE FALSE TRUE TRUE TRUE TRUE ## [6301] TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE ## [6313] TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE ## **FALSE** TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE [6325] ## [6337] TRUE ## [6349] TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE ## [6361] TRUE ## [6373] **FALSE** TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [6385] TRUE ## [6397]TRUE TRUE ## [6409] TRUE ## [6421] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE ## [6433] TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE [6445]TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE ## TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [6457]TRUE TRUE TRUE [6469] ## TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [6481] TRUE [6493] TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE ## [6505] TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE ## TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [6517] TRUE ## [6529] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [6541] TRUE ## [6553] TRUE TRUE TRUE TRUE [6565] TRUE ## TRUE TRUE TRUE ## [6577] TRUE TRUE FALSE TRUE TRUE TRUE TRUE FALSE TRUE ## [6589] TRUE ## [6601] TRUE ## [6613] TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [6625]TRUE TRUE ## [6637] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [6649] TRUE TRUE TRUE TRUE FALSE FALSE TRUE TRUE TRUE TRUE TRUE TRUE ## [6661] TRUE [6673] TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE ## TRUE TRUE ## [6685] TRUE ## [6697] TRUE [6709] TRUE ## TRUE TRUE [6721] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE ## [6733] TRUE ## [6745]TRUE TRUE [6757] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE **FALSE** TRUE ## [6769] TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE ## [6781]TRUE TRUE TRUE TRUE TRUE TRUE ## [6793] TRUE FALSE TRUE [6805] TRUE ## TRUE TRUE

## [6817] TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [6829] TRUE ## [6841] TRUE FALSE TRUE TRUE FALSE TRUE ## [6853] TRUE TRUE TRUE ## [6865] TRUE **FALSE** TRUE ## [6877] TRUE FALSE TRUE TRUE TRUE FALSE FALSE TRUE FALSE TRUE TRUE TRUE ## [6889] TRUE FALSE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE [6901] TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE ## TRUE TRUE TRUE TRUE ## [6913] TRUE ## TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE [6925]TRUE TRUE TRUE ## [6937] TRUE ## [6949] TRUE TRUE TRUE [6961] TRUE TRUE TRUE FALSE ## TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE ## [6973] TRUE ## [6985] TRUE ## [6997] TRUE TRUE FALSE FALSE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE ## [7009] TRUE ## [7021] TRUE ## [7033] TRUE ## [7045]TRUE TRUE ## [7057] TRUE ## [7069] TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE ## [7081] TRUE FALSE TRUE [7093] TRUE ## TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [7105]TRUE TRUE TRUE TRUE FALSE ## [7117]TRUE TRUE ## [7129] TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE [7141] TRUE FALSE TRUE ## TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [7153] TRUE TRUE TRUE TRUE TRUE [7165] TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE TRUE TRUE TRUE [7177] TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [7189] TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE [7201] TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE ## [7213] TRUE ## [7225] TRUE ## [7237] TRUE ## [7249]TRUE TRUE ## [7261] FALSE FALSE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [7273] TRUE ## [7285] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE ## [7297] TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE ## [7309] TRUE [7321] TRUE TRUE TRUE TRUE TRUE FALSE ## TRUE TRUE TRUE FALSE TRUE FALSE ## TRUE TRUE TRUE TRUE TRUE TRUE [7333] TRUE TRUE TRUE TRUE TRUE TRUE ## [7345] TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE [7357] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE **FALSE** TRUE [7369] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE ## [7381] TRUE FALSE TRUE ## [7393] TRUE [7405] TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE TRUE ## [7417] TRUE ## [7429]TRUE TRUE TRUE FALSE FALSE TRUE TRUE TRUE TRUE ## [7441] TRUE [7453]TRUE ## TRUE TRUE

## [7465] TRUE ## [7477]TRUE TRUE ## [7489]TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE [7501] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE ## [7513] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE **FALSE** TRUE TRUE TRUE ## [7525] TRUE FALSE TRUE [7537] TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE FALSE TRUE TRUE [7549] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE ## [7561] TRUE ## [7573] FALSE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [7585] **FALSE** TRUE [7597] TRUE ## TRUE TRUE [7609] TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE ## [7621] TRUE ## [7633] TRUE ## [7645] TRUE FALSE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [7657] TRUE TRUE FALSE TRUE FALSE TRUE TRUE ## [7669] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [7681] TRUE ## [7693] TRUE ## [7705] TRUE FALSE TRUE ## [7717] TRUE FALSE TRUE [7729] ## TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE [7741] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE ## TRUE FALSE TRUE TRUE TRUE TRUE TRUE ## [7753]TRUE TRUE TRUE TRUE TRUE TRUE ## [7765] TRUE FALSE ## [7777] TRUE TRUE **FALSE** TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE [7789] TRUE FALSE TRUE ## [7801] TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE TRUE [7813] TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE TRUE TRUE [7825] TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [7837] TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE [7849] TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE ## TRUE TRUE TRUE TRUE [7861] TRUE ## TRUE TRUE TRUE ## [7873] TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE ## [7885] TRUE ## [7897] TRUE ## [7909] FALSE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE FALSE TRUE TRUE ## [7921] TRUE TRUE FALSE TRUE ## [7933] TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [7945] TRUE ## [7957] TRUE FALSE [7969] TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE ## [7981] TRUE FALSE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE FALSE ## [7993] TRUE [8005] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE [8017] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE ## TRUE TRUE TRUE ## [8029] TRUE ## [8041] TRUE ## [8053] TRUE TRUE TRUE TRUE **FALSE** TRUE ## [8065] TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE [8077] TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [8089] TRUE [8101] ## TRUE TRUE

## [8113] TRUE ## [8125] TRUE ## [8137] TRUE FALSE ## [8149] TRUE TRUE TRUE TRUE TRUE ## [8161] **FALSE** TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE ## [8173] TRUE ## [8185] TRUE [8197] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE ## [8209] TRUE FALSE TRUE ## TRUE TRUE TRUE TRUE TRUE TRUE TRUE [8221] TRUE TRUE FALSE TRUE TRUE TRUE ## [8233] TRUE ## [8245] TRUE TRUE TRUE TRUE [8257] TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE TRUE TRUE ## [8269] TRUE ## [8281] TRUE ## [8293] TRUE ## [8305] TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE ## [8317] TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE ## [8329] TRUE ## [8341] TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE ## [8353] TRUE ## [8365] TRUE ## [8377] TRUE [8389] TRUE ## TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [8401] TRUE TRUE TRUE TRUE ## [8413] TRUE ## [8425] TRUE FALSE [8437] TRUE ## ## TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE [8449] TRUE TRUE TRUE TRUE [8461] TRUE TRUE TRUE TRUE ## TRUE ## [8473] TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE ## [8485] TRUE TRUE TRUE TRUE FALSE TRUE FALSE TRUE TRUE TRUE ## [8497] TRUE TRUE TRUE TRUE ## [8509] TRUE ## [8521] TRUE ## [8533] TRUE ## [8545] TRUE ## [8557] TRUE ## [8569] TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE ## [8581] TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [8593] TRUE ## [8605] TRUE [8617] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE ## [8629] TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE **FALSE** TRUE TRUE FALSE ## [8641] TRUE [8653] TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE ## TRUE TRUE TRUE TRUE [8665] TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE ## [8677] TRUE ## [8689] TRUE [8701] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE ## [8713] TRUE ## [8725] TRUE ## [8737] FALSE TRUE ## [8749] TRUE TRUE

## [8761] TRUE ## [8773] TRUE ## [8785] TRUE TRUE TRUE TRUE TRUE FALSE TRUE ## [8797] TRUE FALSE TRUE TRUE TRUE ## [8809] TRUE FALSE TRUE ## [8821] TRUE ## [8833] TRUE FALSE TRUE TRUE FALSE ## [8845] FALSE TRUE TRUE TRUE ## [8857] TRUE ## TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE [8869] TRUE TRUE TRUE TRUE ## [8881] TRUE ## [8893] TRUE TRUE TRUE [8905] TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE ## [8917] TRUE ## [8929] **FALSE** TRUE ## [8941] TRUE ## [8953] TRUE ## [8965] TRUE ## [8977] TRUE ## [8989] TRUE ## [9001] TRUE ## [9013] TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [9025] TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE FALSE [9037] TRUE ## [9049] TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE ## [9061] TRUE ## [9073] TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE FALSE TRUE TRUE [9085] TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE FALSE TRUE ## [9097] TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE TRUE TRUE [9109] TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [9121] TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE FALSE TRUE TRUE ## [9133] TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE [9145] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE [9157] TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE ## [9169] TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE ## [9181] TRUE ## [9193] TRUE FALSE ## [9205] TRUE ## [9217] TRUE TRUE FALSE TRUE ## [9229] TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE ## [9241] TRUE ## [9253] TRUE [9265] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE ## [9277] TRUE ## [9289] TRUE [9301] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE ## TRUE TRUE TRUE [9313] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE ## [9325] TRUE ## [9337] TRUE [9349] TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE TRUE TRUE ## [9361] TRUE FALSE TRUE TRUE ## [9373] TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE ## [9385] TRUE [9397] ## TRUE TRUE

##	[9409]	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE
##	[9421]	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE
##	[9433]	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	FALSE	TRUE
##	[9445]	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	FALSE	TRUE	TRUE	FALSE
##	[9457]	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE
##	[9469]	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE
##	[9481]	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE
##	[9493]	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE
##	[9505]	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE
##	[9517]	TRUE	TRUE	TRUE	FALSE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE
##	[9529]	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE
##	[9541]	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE
##	[9553]	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	FALSE	TRUE	TRUE	TRUE
##	[9565]	FALSE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE
##	[9577]	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE
##	[9589]	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE
##	[9601]	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE
##	[9613]	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE
##	[9625]	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	FALSE	TRUE	TRUE
##	[9637]	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE
##	[9649]	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE
##	[9661]	TRUE	TRUE	TRUE	TRUE	TRUE	FALSE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE
##	[9673]	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	FALSE	TRUE
##	[9685]	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE
##	[9697]	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE
##	[9709]	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	FALSE	TRUE
##	[9721]	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE
##	[9733]	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE
##	[9745]	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE
##	[9757]	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE
##	[9769]	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE
##	[9781]	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE
##	[9793]	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE
##	[9805]	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE
##	[9817]	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE
##	[9829]	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE
##	[9841]	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE
##	[9853]	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE
##	[9865]	TRUE	TRUE	TRUE	TRUE		FALSE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE
##	[9877]		FALSE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE
##	[9889]	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE
##	[9901]	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE
##	[9913]	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE
##	[9925]	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE
##	[9937]	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE		FALSE	TRUE		FALSE
##	[9949]	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE		FALSE	TRUE	TRUE
##	[9961]	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE
##	[9973]	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE
##	[9985]	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE
##	[9997]	TRUE	TRUE	TRUE	TRUE								

What proportion of times did the t-based CI cover the true  $\mu$ ? Does this match the theory? Answer:approximately it is becoming 95% true for mu

3. Repeat the steps in Question 2, now using the standard exponential distribution to generate the sample X, but still using the t-based CI. (Recall that the mean in this case is 1.)

```
nrep <- 10000
maxs <- rep(0,nrep)</pre>
mins <- rep(0,nrep)
for(i in 1:nrep){
  X \leftarrow rexp(n=20, rate=1/1)
  my.test<- t.test(X,conf.level=0.95,mu=0)
  maxs[i] <- my.test$conf.int[2]</pre>
  mins[i] <- my.test$conf.int[1]</pre>
}
contained <- mins < 1 & maxs > 1
my.test$conf.int
## [1] 0.5810901 1.3570950
## attr(,"conf.level")
## [1] 0.95
table(contained)/nrep
## contained
```

#### contained

FALSE

## 0.0825 0.9175

TRUE

## [1] TRUE ## [13] TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE ## [25] TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE FALSE TRUE ## [37] TRUE ## [49] TRUE TRUE TRUE FALSE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE FALSE TRUE TRUE TRUE TRUE [61] TRUE TRUE TRUE TRUE TRUE ## [73] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE [85] TRUE TRUE TRUE TRUE ## TRUE ## [97] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [109] TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE ## [121] TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE FALSE TRUE ## [133] TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE ## [145]TRUE TRUE ## [157] TRUE TRUE ## [169] TRUE ## [181] TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE ## TRUE [193] ## [205] TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE [217] TRUE TRUE ## TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE ## [229] TRUE ## [241]TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [253] TRUE ## [265] TRUE ## TRUE TRUE TRUE TRUE FALSE TRUE TRUE [277] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE ## [289] FALSE TRUE TRUE TRUE TRUE FALSE TRUE

## [301] TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE ## [313] TRUE ## [325] TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE FALSE TRUE TRUE FALSE FALSE TRUE TRUE TRUE ## [337] TRUE TRUE TRUE ## [349] TRUE ## [361] TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE ## [373] TRUE [385] TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE FALSE TRUE TRUE ## [397] TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [409] TRUE ## [421] TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE FALSE TRUE TRUE TRUE TRUE ## [433] **FALSE** TRUE TRUE TRUE TRUE TRUE TRUE ## [445]TRUE TRUE TRUE TRUE FALSE TRUE TRUE ## [457]TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE ## [469] TRUE ## [481] TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE FALSE TRUE TRUE TRUE ## [493] TRUE ## [505] TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE ## [517] TRUE ## [529] TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [541] TRUE ## [553] TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE ## [565] TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE [577] TRUE ## ## [589] TRUE FALSE TRUE TRUE FALSE TRUE FALSE FALSE TRUE TRUE TRUE TRUE [601] ## TRUE FALSE ## [613]TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE [625] TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [637] TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE ## TRUE FALSE [649] TRUE TRUE FALSE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE ## [661] TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE ## [673] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE FALSE ## [685] **FALSE** TRUE TRUE ## [697] TRUE FALSE TRUE ## [709] TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [721] TRUE ## [733]TRUE TRUE ## [745]TRUE TRUE ## [757] TRUE TRUE FALSE TRUE ## [769] TRUE ## [781] TRUE ## [793] FALSE TRUE [805] TRUE ## TRUE ## [817] TRUE ## [829] TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE [841] TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE ## TRUE [853] TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE ## [865] TRUE FALSE TRUE TRUE FALSE TRUE TRUE TRUE FALSE TRUE TRUE TRUE ## [877] TRUE TRUE FALSE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE [889] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE ## TRUE TRUE ## [901] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE [913] TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE ## [925] TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE [937] TRUE ## TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE

```
##
     [949]
             TRUE
                    TRUE
                          TRUE
                                 TRUE
                                        TRUE
                                              TRUE
                                                     TRUE
                                                            TRUE
                                                                   TRUE
                                                                         TRUE
                                                                                TRUE
                                                                                       TRUE
##
     [961]
             TRUE
                    TRUE
                          TRUE
                                 TRUE
                                        TRUE
                                              TRUE
                                                     TRUE
                                                            TRUE
                                                                   TRUE FALSE
                                                                                TRUE
                                                                                       TRUE
                                        TRUE
##
     [973]
             TRUE
                    TRUE
                          TRUE
                                 TRUE
                                               TRUE
                                                     TRUE
                                                            TRUE
                                                                   TRUE
                                                                          TRUE
                                                                                TRUE
                                                                                       TRUE
     [985]
                          TRUE
                                 TRUE
                                        TRUE
                                               TRUE
                                                     TRUE
                                                            TRUE
                                                                   TRUE
                                                                          TRUE
                                                                                TRUE
##
             TRUE
                    TRUE
                                                                                       TRUE
##
     [997]
             TRUE
                    TRUE
                          TRUE
                                 TRUE
                                        TRUE
                                               TRUE
                                                     TRUE
                                                            TRUE
                                                                   TRUE
                                                                          TRUE
                                                                                TRUE
                                                                                       TRUE
##
    [1009] FALSE
                    TRUE FALSE
                                        TRUE
                                              TRUE
                                                     TRUE FALSE
                                                                   TRUE
                                                                          TRUE
                                                                                TRUE
                                                                                       TRUE
                                 TRUE
    [1021] FALSE
                          TRUE
                                 TRUE
                                        TRUE
                                              TRUE
                                                            TRUE
                                                                   TRUE
                                                                          TRUE
                                                                                TRUE FALSE
##
                    TRUE
                                                     TRUE
                    TRUE
                                 TRUE
                                                            TRUE
                                                                   TRUE
                                                                          TRUE
                                                                                TRUE
##
    [1033]
             TRUE
                          TRUE
                                        TRUE FALSE
                                                     TRUE
                                                                                       TRUE
##
    [1045]
             TRUE
                    TRUE
                          TRUE
                                 TRUE
                                        TRUE
                                              TRUE
                                                     TRUE
                                                            TRUE
                                                                   TRUE
                                                                          TRUE
                                                                                TRUE
                                                                                       TRUE
##
                    TRUE
                          TRUE
                                        TRUE
                                               TRUE
                                                     TRUE
                                                            TRUE
                                                                   TRUE
                                                                          TRUE
    [1057] FALSE
                                 TRUE
                                                                                TRUE FALSE
##
    [1069]
             TRUE
                    TRUE
                          TRUE
                                 TRUE
                                        TRUE
                                               TRUE
                                                     TRUE
                                                            TRUE
                                                                   TRUE
                                                                          TRUE
                                                                                TRUE
                                                                                       TRUE
                    TRUE
                                 TRUE
                                        TRUE
                                                                   TRUE
                                                                          TRUE
                                                                                TRUE
##
    [1081]
             TRUE
                          TRUE
                                               TRUE FALSE
                                                           FALSE
                                                                                       TRUE
                                                            TRUE
                                                                   TRUE
                                                                          TRUE
                                                                                TRUE
##
    [1093]
             TRUE
                    TRUE
                          TRUE
                                FALSE
                                        TRUE
                                               TRUE
                                                     TRUE
                                                                                       TRUE
##
    [1105]
            FALSE
                    TRUE
                          TRUE
                                 TRUE
                                        TRUE
                                               TRUE
                                                     TRUE
                                                            TRUE
                                                                   TRUE
                                                                          TRUE
                                                                                TRUE
                                                                                       TRUE
##
    [1117]
             TRUE
                    TRUE FALSE
                                 TRUE
                                        TRUE
                                               TRUE
                                                     TRUE
                                                            TRUE
                                                                   TRUE
                                                                          TRUE
                                                                                TRUE
                                                                                       TRUE
##
    [1129]
             TRUE
                    TRUE FALSE
                                 TRUE
                                        TRUE
                                               TRUE
                                                     TRUE
                                                            TRUE
                                                                   TRUE
                                                                          TRUE
                                                                                TRUE
                                                                                       TRUE
##
    [1141]
             TRUE
                          TRUE
                                 TRUE
                                        TRUE
                                               TRUE
                                                     TRUE
                                                            TRUE
                                                                   TRUE
                                                                          TRUE
                                                                                TRUE
                                                                                       TRUE
                    TRUE
                                                            TRUE
                                                                   TRUE
                                                                          TRUE
##
    [1153]
             TRUE
                    TRUE
                          TRUE
                                 TRUE
                                        TRUE
                                               TRUE
                                                     TRUE
                                                                                TRUE
                                                                                       TRUE
##
    [1165]
             TRUE
                    TRUE
                          TRUE
                                 TRUE
                                        TRUE
                                               TRUE
                                                     TRUE
                                                            TRUE
                                                                   TRUE
                                                                          TRUE
                                                                                TRUE
                                                                                       TRUE
##
    [1177]
             TRUE FALSE
                          TRUE
                                 TRUE
                                        TRUE
                                               TRUE
                                                     TRUE
                                                            TRUE
                                                                 FALSE
                                                                          TRUE
                                                                                TRUE
                                                                                       TRUE
                                              TRUE
                                                                   TRUE
##
    [1189]
             TRUE
                    TRUE
                          TRUE
                                 TRUE
                                        TRUE
                                                     TRUE
                                                            TRUE
                                                                          TRUE FALSE
                                                                                       TRUE
##
    [1201]
             TRUE
                    TRUE FALSE
                                 TRUE
                                        TRUE
                                               TRUE
                                                     TRUE
                                                            TRUE
                                                                   TRUE
                                                                          TRUE
                                                                                TRUE
                                                                                       TRUE
##
    [1213] FALSE
                    TRUE
                          TRUE
                                 TRUE
                                        TRUE
                                               TRUE
                                                     TRUE
                                                            TRUE
                                                                   TRUE
                                                                          TRUE
                                                                                TRUE
                                                                                       TRUE
    [1225]
             TRUE
                    TRUE
                          TRUE
                                 TRUE
                                        TRUE
                                               TRUE
                                                     TRUE
                                                            TRUE
                                                                   TRUE FALSE
                                                                                TRUE
                                                                                       TRUE
##
                          TRUE FALSE FALSE
                                              TRUE
                                                     TRUE
                                                            TRUE FALSE
                                                                         TRUE
                                                                                TRUE
                                                                                       TRUE
##
    [1237]
             TRUE
                    TRUE
##
    [1249]
             TRUE
                    TRUE
                          TRUE
                                 TRUE
                                        TRUE
                                               TRUE
                                                     TRUE
                                                            TRUE
                                                                   TRUE FALSE
                                                                               FALSE
                                                                                       TRUE
##
    [1261]
             TRUE
                    TRUE
                          TRUE
                                 TRUE
                                        TRUE FALSE
                                                     TRUE
                                                            TRUE
                                                                 FALSE
                                                                          TRUE
                                                                                TRUE
                                                                                       TRUE
    [1273]
             TRUE
                    TRUE
                          TRUE
                                 TRUE
                                        TRUE
                                               TRUE
                                                     TRUE
                                                            TRUE
                                                                   TRUE
                                                                          TRUE
                                                                                TRUE
                                                                                       TRUE
##
##
                    TRUE
                          TRUE
                                        TRUE
                                               TRUE
                                                            TRUE
                                                                   TRUE FALSE
                                                                                TRUE
    [1285]
             TRUE
                                 TRUE
                                                     TRUE
                                                                                       TRUE
    [1297]
                                        TRUE
                                               TRUE
                                                                          TRUE
                                                                                TRUE
##
             TRUE
                    TRUE
                           TRUE
                                 TRUE
                                                     TRUE
                                                            TRUE
                                                                   TRUE
                                                                                       TRUE
                                                                   TRUE
                                                                          TRUE
##
    [1309]
             TRUE
                    TRUE
                           TRUE
                                 TRUE
                                        TRUE
                                               TRUE
                                                     TRUE
                                                            TRUE
                                                                                TRUE
                                                                                       TRUE
##
    [1321]
             TRUE
                    TRUE
                          TRUE
                                 TRUE
                                        TRUE
                                               TRUE
                                                     TRUE
                                                            TRUE
                                                                   TRUE
                                                                          TRUE
                                                                                TRUE
                                                                                       TRUE
                                        TRUE
                                               TRUE
                                                     TRUE
                                                            TRUE
                                                                   TRUE
                                                                          TRUE
                                                                                TRUE
                                                                                       TRUE
##
    [1333]
             TRUE
                    TRUE
                           TRUE
                                 TRUE
##
    [1345]
             TRUE
                    TRUE
                           TRUE
                                 TRUE
                                        TRUE
                                               TRUE
                                                     TRUE
                                                            TRUE
                                                                   TRUE
                                                                          TRUE
                                                                                TRUE
                                                                                       TRUE
                                                                          TRUE
##
    [1357]
            FALSE FALSE
                           TRUE
                                 TRUE
                                        TRUE
                                               TRUE FALSE
                                                            TRUE
                                                                   TRUE
                                                                                TRUE
                                                                                       TRUE
##
    [1369]
            FALSE
                   TRUE
                          TRUE
                                 TRUE
                                        TRUE
                                              TRUE FALSE
                                                            TRUE
                                                                   TRUE
                                                                          TRUE
                                                                                TRUE FALSE
##
    [1381]
             TRUE
                    TRUE
                          TRUE
                                 TRUE
                                        TRUE
                                               TRUE
                                                     TRUE
                                                            TRUE
                                                                   TRUE
                                                                          TRUE
                                                                                TRUE
                                                                                       TRUE
##
    [1393]
             TRUE
                    TRUE FALSE
                                 TRUE
                                        TRUE
                                               TRUE FALSE
                                                            TRUE
                                                                   TRUE
                                                                          TRUE
                                                                                TRUE
                                                                                       TRUE
##
    [1405]
             TRUE
                    TRUE
                          TRUE FALSE
                                        TRUE
                                               TRUE
                                                     TRUE
                                                            TRUE
                                                                   TRUE
                                                                          TRUE
                                                                                TRUE
                                                                                       TRUE
                                                                   TRUE
                                                                          TRUE
##
    [1417]
             TRUE
                    TRUE
                          TRUE
                                TRUE
                                        TRUE
                                               TRUE
                                                     TRUE
                                                            TRUE
                                                                                TRUE
                                                                                       TRUE
                    TRUE
                          TRUE FALSE
                                        TRUE
                                               TRUE
                                                     TRUE
                                                            TRUE
                                                                   TRUE
                                                                          TRUE
                                                                                TRUE
                                                                                       TRUE
##
    [1429] FALSE
##
    [1441]
             TRUE
                    TRUE FALSE FALSE
                                        TRUE
                                               TRUE
                                                     TRUE
                                                            TRUE
                                                                   TRUE
                                                                          TRUE
                                                                                TRUE
                                                                                       TRUE
            FALSE FALSE
                          TRUE FALSE
                                               TRUE
                                                                   TRUE
                                                                          TRUE
##
    [1453]
                                        TRUE
                                                     TRUE FALSE
                                                                                TRUE FALSE
##
                    TRUE
                                               TRUE
                                                                   TRUE
                                                                          TRUE
                                                                                TRUE
    [1465]
             TRUE
                          TRUE FALSE
                                        TRUE
                                                     TRUE
                                                           FALSE
                                                                                       TRUE
    [1477]
             TRUE
                    TRUE
                                 TRUE
                                        TRUE
                                               TRUE
                                                            TRUE
                                                                   TRUE
                                                                          TRUE
                                                                                TRUE
                                                                                       TRUE
##
                           TRUE
                                                     TRUE
                    TRUE
                          TRUE
                                 TRUE
                                        TRUE
                                               TRUE
                                                     TRUE
                                                            TRUE
                                                                   TRUE
                                                                          TRUE
##
    [1489]
            FALSE
                                                                                TRUE FALSE
    [1501]
                          TRUE
                                 TRUE
                                               TRUE
                                                     TRUE
                                                            TRUE
                                                                   TRUE
                                                                          TRUE
##
             TRUE
                    TRUE
                                        TRUE
                                                                                TRUE
                                                                                       TRUE
##
    [1513]
             TRUE
                    TRUE
                          TRUE
                                 TRUE
                                        TRUE
                                               TRUE
                                                     TRUE
                                                            TRUE
                                                                 FALSE
                                                                          TRUE
                                                                                TRUE
                                                                                       TRUE
##
    [1525]
             TRUE
                    TRUE
                           TRUE
                                 TRUE
                                        TRUE
                                               TRUE
                                                     TRUE
                                                            TRUE
                                                                   TRUE
                                                                          TRUE
                                                                                TRUE
                                                                                       TRUE
    [1537]
                           TRUE
                                 TRUE
                                        TRUE
                                                     TRUE
                                                            TRUE
                                                                   TRUE
                                                                          TRUE
                                                                                TRUE
##
             TRUE
                    TRUE
                                               TRUE
                                                                                       TRUE
##
    [1549]
             TRUE
                    TRUE
                          TRUE
                                 TRUE
                                        TRUE
                                               TRUE
                                                     TRUE
                                                            TRUE
                                                                   TRUE
                                                                          TRUE FALSE
                                                                                       TRUE
                                                                   TRUE
                                                                          TRUE FALSE FALSE
##
    [1561]
             TRUE
                    TRUE
                          TRUE
                                 TRUE
                                        TRUE
                                               TRUE
                                                     TRUE
                                                            TRUE
##
    [1573]
             TRUE
                    TRUE
                          TRUE
                                 TRUE FALSE
                                               TRUE
                                                     TRUE FALSE
                                                                   TRUE
                                                                          TRUE
                                                                                TRUE
                                                                                       TRUE
    [1585]
                                              TRUE
##
             TRUE
                    TRUE
                          TRUE
                                 TRUE
                                        TRUE
                                                     TRUE
                                                            TRUE FALSE
                                                                         TRUE
                                                                                TRUE
                                                                                       TRUE
```

## [1597] TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [1609] TRUE ## [1621] TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE ## [1633] TRUE TRUE TRUE FALSE ## [1645] TRUE ## [1657] TRUE TRUE TRUE TRUE FALSE FALSE TRUE TRUE TRUE TRUE TRUE TRUE ## [1669] TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE [1681] TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## FALSE TRUE TRUE TRUE TRUE ## [1693] TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE ## TRUE TRUE TRUE TRUE TRUE TRUE [1705] TRUE TRUE TRUE TRUE TRUE TRUE ## [1717] TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE FALSE TRUE [1729] TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE FALSE FALSE TRUE FALSE TRUE [1741] TRUE TRUE TRUE ## TRUE TRUE FALSE TRUE TRUE TRUE FALSE TRUE TRUE TRUE ## [1753] TRUE ## [1765] TRUE ## [1777] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE ## [1789] TRUE ## [1801] TRUE TRUE TRUE FALSE FALSE TRUE TRUE TRUE TRUE TRUE TRUE ## [1813] TRUE ## [1825]TRUE TRUE ## [1837] TRUE ## [1849] TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE ## [1861] TRUE [1873] TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE FALSE FALSE TRUE ## TRUE TRUE FALSE TRUE TRUE TRUE TRUE FALSE TRUE ## [1885] TRUE TRUE TRUE ## [1897] TRUE ## [1909] TRUE [1921] TRUE ## TRUE TRUE TRUE TRUE TRUE TRUE ## [1933] TRUE TRUE FALSE FALSE TRUE TRUE TRUE [1945] TRUE TRUE TRUE TRUE FALSE ## TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE ## [1957] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [1969] TRUE TRUE FALSE FALSE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE [1981] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE ## [1993] FALSE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [2005] TRUE ## [2017] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE ## [2029] TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE ## [2041] TRUE ## [2053] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE ## [2065] TRUE ## [2077] TRUE ## [2089] FALSE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE [2101] TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE TRUE ## TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE [2113] TRUE TRUE TRUE ## [2125] TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE [2137] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE [2149] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE ## [2161] TRUE FALSE TRUE ## [2173] TRUE [2185] TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE FALSE TRUE TRUE ## [2197] TRUE ## [2209] TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE ## [2221] TRUE ## [2233] TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE

## [2245] TRUE FALSE TRUE ## [2257] TRUE ## [2269] TRUE TRUE FALSE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE [2281] TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE FALSE TRUE TRUE TRUE ## [2293] TRUE ## [2305] TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [2317] TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE FALSE [2329] TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE TRUE TRUE TRUE [2341] ## TRUE ## TRUE TRUE TRUE TRUE TRUE TRUE [2353] TRUE TRUE TRUE TRUE FALSE TRUE ## [2365] TRUE ## [2377] TRUE TRUE TRUE FALSE TRUE [2389] TRUE ## TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE ## [2401] TRUE ## [2413] **FALSE** TRUE ## [2425] TRUE ## [2437] TRUE FALSE TRUE ## [2449] TRUE ## [2461] TRUE FALSE TRUE ## [2473]TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE ## [2485] TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE ## [2497] TRUE ## [2509] TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE [2521] TRUE FALSE FALSE ## TRUE TRUE TRUE TRUE ## [2533] FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [2545] TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE ## [2557] TRUE [2569] FALSE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE TRUE TRUE ## [2581] TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [2593] TRUE TRUE TRUE TRUE TRUE FALSE FALSE TRUE TRUE TRUE TRUE ## [2605] TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE FALSE ## [2617] TRUE ## [2629] TRUE TRUE TRUE TRUE TRUE [2641] TRUE TRUE TRUE TRUE TRUE FALSE FALSE TRUE TRUE TRUE TRUE TRUE ## TRUE ## [2653] TRUE ## [2665] TRUE FALSE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE ## [2677] TRUE ## [2689] TRUE ## [2701] TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE ## [2713] TRUE [2725] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE ## [2737] TRUE [2749] TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE FALSE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE TRUE [2761] TRUE TRUE TRUE TRUE TRUE TRUE TRUE [2773] **FALSE** TRUE TRUE TRUE TRUE TRUE FALSE TRUE ## TRUE TRUE FALSE TRUE [2785] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE [2797] TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE TRUE TRUE ## [2809] TRUE ## [2821] TRUE ## [2833] TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [2845] **FALSE** TRUE ## [2857] TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE ## [2869] TRUE FALSE TRUE TRUE FALSE TRUE TRUE TRUE TRUE FALSE TRUE TRUE ## [2881] TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE

## [2893] TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE FALSE FALSE TRUE TRUE ## [2905] FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE ## [2917] TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE [2929] TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE TRUE ## [2941] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE ## [2953] TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE [2965] TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE FALSE TRUE TRUE TRUE TRUE [2977] TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE FALSE TRUE TRUE FALSE TRUE ## [2989] TRUE ## TRUE TRUE TRUE TRUE FALSE TRUE FALSE TRUE [3001] TRUE TRUE TRUE TRUE ## [3013] TRUE ## [3025] TRUE TRUE TRUE TRUE FALSE TRUE TRUE ## [3037] TRUE FALSE FALSE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [3049] TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE FALSE ## [3061] TRUE FALSE ## [3073] TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE FALSE TRUE FALSE ## [3085] FALSE TRUE FALSE TRUE ## [3097] **FALSE** TRUE ## [3109] TRUE FALSE TRUE ## [3121] TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE ## [3133] TRUE FALSE TRUE ## [3145] TRUE ## [3157] FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE [3169] TRUE TRUE FALSE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE ## [3181] TRUE TRUE FALSE FALSE ## [3193] TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [3205] TRUE FALSE TRUE TRUE TRUE TRUE FALSE TRUE FALSE TRUE TRUE TRUE [3217] FALSE TRUE TRUE TRUE FALSE TRUE FALSE TRUE TRUE TRUE TRUE TRUE ## ## TRUE TRUE TRUE TRUE TRUE TRUE TRUE [3229] TRUE TRUE TRUE TRUE TRUE [3241] TRUE TRUE TRUE TRUE ## TRUE ## [3253] TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [3265] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE ## [3277] TRUE FALSE TRUE TRUE [3289] TRUE ## TRUE ## [3301] TRUE ## [3313] TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE FALSE ## [3325]TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE ## [3337] FALSE TRUE ## [3349] TRUE FALSE ## [3361] TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE [3373] TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE ## [3385] FALSE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE [3397] TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE FALSE TRUE TRUE ## [3409] TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [3421] TRUE TRUE FALSE TRUE ## [3433] TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE ## [3445] **FALSE** TRUE TRUE TRUE FALSE ## [3457] TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [3469] TRUE FALSE TRUE FALSE ## [3481] TRUE TRUE TRUE TRUE TRUE ## [3493] TRUE ## [3505] TRUE ## [3517] TRUE [3529] ## TRUE TRUE TRUE TRUE TRUE FALSE FALSE TRUE TRUE TRUE TRUE TRUE

## [3541] TRUE ## [3553] TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [3565] TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE [3577] TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE TRUE TRUE ## [3589] TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [3601] TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [3613] TRUE FALSE [3625] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE TRUE ## [3637] TRUE ## TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE [3649] TRUE TRUE TRUE ## [3661] TRUE FALSE TRUE FALSE ## [3673] TRUE TRUE TRUE [3685] TRUE TRUE TRUE FALSE ## TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [3697] TRUE ## [3709] TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [3721] TRUE ## [3733] TRUE ## [3745] TRUE ## [3757] FALSE FALSE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE ## [3769] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE ## [3781] TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE ## [3793] TRUE ## [3805] TRUE [3817] TRUE ## TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [3829] TRUE TRUE TRUE TRUE [3841] TRUE ## TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [3853] TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE [3865] FALSE TRUE ## TRUE TRUE TRUE TRUE TRUE FALSE ## [3877] TRUE TRUE FALSE TRUE TRUE TRUE TRUE [3889] TRUE TRUE TRUE TRUE TRUE ## TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [3901] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [3913] FALSE FALSE TRUE TRUE TRUE TRUE FALSE FALSE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE ## [3925] TRUE TRUE TRUE TRUE TRUE TRUE ## [3937] TRUE ## [3949] TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE ## [3961] TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [3973] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE ## [3985] TRUE TRUE TRUE TRUE FALSE TRUE FALSE TRUE TRUE TRUE TRUE TRUE ## [3997] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE FALSE TRUE TRUE TRUE ## [4009] TRUE [4021] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE ## [4033] TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE [4045]TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE ## [4057] TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [4069] TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE [4081] TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE **FALSE** TRUE [4093] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE ## [4105]TRUE TRUE ## [4117]TRUE TRUE [4129] TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE FALSE TRUE TRUE FALSE TRUE ## [4141]TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE FALSE TRUE ## [4153]TRUE TRUE TRUE TRUE TRUE ## [4165]TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [4177]TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE

[4189] TRUE ## [4201] TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE FALSE TRUE TRUE ## [4213]TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE [4225] TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE TRUE FALSE ## [4237] TRUE ## [4249]TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE [4261] TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE FALSE TRUE TRUE TRUE TRUE [4273]TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE FALSE ## [4285] FALSE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE [4297]TRUE TRUE TRUE TRUE TRUE ## [4309] **FALSE** TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE **FALSE** TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [4321] TRUE TRUE TRUE TRUE ## [4333] TRUE TRUE TRUE TRUE FALSE TRUE TRUE FALSE TRUE FALSE TRUE ## [4345] TRUE FALSE ## [4357] TRUE ## [4369] TRUE FALSE TRUE ## [4381] TRUE FALSE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [4393] TRUE ## [4405]TRUE TRUE ## [4417]TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE FALSE ## [4429]TRUE TRUE FALSE ## [4441] TRUE ## [4453]TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE [4465]TRUE TRUE TRUE FALSE FALSE FALSE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE FALSE TRUE TRUE TRUE TRUE TRUE ## [4477]TRUE TRUE TRUE FALSE TRUE ## [4489] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE FALSE TRUE TRUE [4501] ## TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE [4513] TRUE ## TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [4525]TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [4537] TRUE ## [4549]TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [4561] TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE FALSE TRUE TRUE FALSE ## [4573]TRUE TRUE TRUE TRUE TRUE ## [4585] **FALSE** TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [4597] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE FALSE ## [4609] TRUE ## [4621]TRUE TRUE ## [4633]TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [4645]TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [4657]TRUE TRUE TRUE TRUE FALSE FALSE TRUE TRUE TRUE FALSE TRUE [4669] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE ## [4681] TRUE TRUE TRUE FALSE TRUE TRUE TRUE FALSE **FALSE** TRUE TRUE TRUE [4693] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE ## [4705] TRUE ## [4717] TRUE FALSE TRUE [4729] TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE **FALSE** TRUE [4741] TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE TRUE ## [4753]TRUE TRUE ## [4765]TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [4777]**FALSE** TRUE TRUE TRUE TRUE ## [4789] TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [4801] TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE ## [4813]TRUE TRUE ## [4825]TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE

## [4837] TRUE ## [4849] TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [4861] TRUE ## [4873] TRUE TRUE FALSE TRUE TRUE ## [4885] TRUE ## [4897] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE FALSE TRUE [4909] TRUE TRUE TRUE **FALSE** TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE TRUE [4921] TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE TRUE ## [4933] TRUE [4945] ## TRUE ## [4957] TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE [4969] TRUE **FALSE** TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE ## TRUE TRUE [4981] TRUE TRUE ## TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE ## [4993] TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE FALSE TRUE TRUE ## [5005] TRUE ## [5017] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE ## TRUE [5029] **FALSE** TRUE ## [5041] TRUE ## [5053] TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [5065] TRUE ## [5077] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE ## [5089] TRUE ## [5101] TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE [5113] TRUE ## TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE ## [5125]TRUE TRUE TRUE ## [5137] TRUE FALSE ## [5149] **FALSE** TRUE TRUE FALSE FALSE TRUE FALSE TRUE FALSE TRUE FALSE TRUE [5161] TRUE FALSE TRUE TRUE TRUE FALSE TRUE FALSE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE TRUE ## [5173] TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE FALSE TRUE TRUE ## [5185] FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [5197] TRUE FALSE ## [5209] TRUE TRUE TRUE TRUE FALSE TRUE ## [5221] FALSE TRUE TRUE TRUE ## [5233] TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [5245] TRUE TRUE TRUE TRUE TRUE FALSE FALSE TRUE TRUE TRUE TRUE ## [5257] **FALSE** TRUE FALSE ## [5269] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE ## [5281] FALSE TRUE ## [5293] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE ## [5305] TRUE FALSE TRUE TRUE TRUE TRUE FALSE TRUE TRUE FALSE TRUE ## [5317] TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [5329] TRUE TRUE TRUE TRUE TRUE TRUE TRUE **FALSE** TRUE TRUE TRUE TRUE [5341] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE [5353] TRUE TRUE TRUE ## [5365] TRUE [5377] TRUE ## TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE ## [5389] **FALSE** TRUE TRUE ## [5401] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE ## [5413] TRUE TRUE TRUE TRUE FALSE FALSE TRUE ## [5425] TRUE TRUE TRUE TRUE TRUE TRUE ## [5437] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE **FALSE** TRUE TRUE TRUE TRUE ## [5449] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [5461] TRUE [5473] TRUE ## TRUE TRUE

## [5485] TRUE TRUE TRUE FALSE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [5497] TRUE TRUE TRUE TRUE TRUE FALSE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE ## [5509] TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE [5521] TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE TRUE TRUE ## [5533] TRUE TRUE TRUE FALSE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE ## [5545] TRUE TRUE TRUE FALSE TRUE FALSE FALSE TRUE TRUE TRUE TRUE TRUE ## [5557] TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE [5569] TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE FALSE TRUE TRUE TRUE ## [5581] TRUE TRUE FALSE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE TRUE TRUE [5593] TRUE TRUE TRUE TRUE TRUE TRUE ## [5605] TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE ## [5617] TRUE TRUE TRUE TRUE TRUE TRUE ## [5629] TRUE TRUE FALSE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE ## [5641] TRUE ## [5653] **FALSE** TRUE ## [5665] TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE FALSE TRUE TRUE ## TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE [5677] TRUE ## [5689] TRUE ## [5701] TRUE ## [5713] TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [5725] TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [5737] TRUE ## [5749] FALSE FALSE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE [5761] TRUE FALSE TRUE ## TRUE [5773] FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE ## [5785] TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [5797] TRUE TRUE TRUE TRUE FALSE TRUE TRUE FALSE FALSE TRUE TRUE TRUE [5809] TRUE ## [5821] TRUE FALSE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE FALSE TRUE [5833] TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE ## [5845] TRUE FALSE TRUE TRUE TRUE TRUE TRUE FALSE FALSE TRUE ## [5857] TRUE FALSE TRUE ## [5869] TRUE TRUE TRUE TRUE TRUE [5881] TRUE ## TRUE TRUE ## [5893] TRUE ## [5905] **FALSE** TRUE ## [5917] TRUE ## [5929] TRUE ## [5941] TRUE FALSE ## [5953] TRUE ## [5965] TRUE TRUE TRUE TRUE TRUE TRUE **FALSE** TRUE TRUE TRUE TRUE TRUE ## [5977] TRUE [5989] TRUE TRUE TRUE TRUE TRUE TRUE FALSE ## TRUE TRUE TRUE TRUE TRUE ## [6001] TRUE FALSE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [6013] TRUE TRUE FALSE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE [6025] TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE [6037] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE ## [6049]TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE ## [6061] **FALSE** TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE FALSE ## [6073] TRUE TRUE TRUE TRUE TRUE FALSE ## [6085] TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE [6097] TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [6109] TRUE ## [6121]TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE

## [6133] TRUE ## [6145]TRUE TRUE [6157] TRUE TRUE ## TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE FALSE FALSE TRUE TRUE TRUE ## [6169] TRUE TRUE TRUE FALSE TRUE TRUE ## [6181] TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE ## [6193] FALSE TRUE TRUE TRUE FALSE TRUE FALSE TRUE TRUE TRUE TRUE TRUE ## [6205] TRUE FALSE TRUE [6217]TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE TRUE TRUE ## [6229] TRUE TRUE TRUE FALSE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE ## TRUE FALSE TRUE FALSE TRUE TRUE TRUE TRUE TRUE [6241]TRUE TRUE TRUE ## [6253] TRUE TRUE TRUE TRUE TRUE FALSE TRUE FALSE TRUE ## [6265] TRUE TRUE [6277] TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [6289] TRUE ## [6301] TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE FALSE TRUE TRUE ## [6313] TRUE ## [6325] TRUE ## [6337] TRUE FALSE TRUE TRUE TRUE TRUE FALSE TRUE TRUE FALSE TRUE TRUE ## [6349] **FALSE** TRUE TRUE TRUE TRUE TRUE TRUE TRUE **FALSE** TRUE TRUE TRUE ## [6361] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE FALSE TRUE ## [6373] TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE ## [6385] TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE ## [6397] TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE [6409] TRUE TRUE TRUE TRUE FALSE TRUE TRUE FALSE TRUE TRUE FALSE TRUE ## TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [6421]TRUE TRUE TRUE TRUE ## [6433] TRUE FALSE ## [6445]TRUE TRUE [6457] TRUE FALSE FALSE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE ## [6469] TRUE TRUE TRUE TRUE FALSE ## TRUE TRUE TRUE TRUE TRUE TRUE TRUE [6481] TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [6493] **FALSE** TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE ## [6505] TRUE TRUE FALSE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE ## [6517] TRUE TRUE TRUE TRUE ## [6529] TRUE ## [6541] TRUE ## [6553] TRUE TRUE TRUE TRUE FALSE FALSE FALSE TRUE TRUE TRUE TRUE TRUE ## [6565]TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [6577] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE ## [6589] TRUE ## [6601] TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE ## [6613] TRUE FALSE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [6625] TRUE [6637] TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE TRUE ## [6649] TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE ## [6661] TRUE TRUE FALSE FALSE FALSE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE ## [6673] TRUE TRUE TRUE FALSE [6685] TRUE TRUE TRUE FALSE TRUE FALSE TRUE ## TRUE TRUE TRUE ## [6697] TRUE FALSE TRUE ## [6709] TRUE [6721] TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE TRUE ## [6733] TRUE [6745] TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE ## [6757] TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE FALSE TRUE FALSE [6769] ## TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE

## [6781] TRUE TRUE TRUE TRUE TRUE TRUE FALSE FALSE TRUE TRUE FALSE TRUE ## [6793] TRUE ## [6805]TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE ## [6817] TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE ## [6829] TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [6841] TRUE ## [6853] TRUE TRUE FALSE TRUE TRUE FALSE FALSE TRUE TRUE TRUE TRUE TRUE [6865] TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE FALSE TRUE TRUE TRUE TRUE ## [6877] TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE TRUE [6889] TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [6901] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [6913] TRUE **FALSE** TRUE TRUE ## [6925] TRUE ## [6937] TRUE ## [6949] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE ## [6961] TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [6973] TRUE ## [6985] FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE **FALSE** TRUE TRUE ## FALSE TRUE TRUE TRUE FALSE TRUE TRUE FALSE TRUE TRUE TRUE TRUE [6997] TRUE ## [7009] TRUE ## [7021] TRUE ## [7033] FALSE TRUE ## [7045] FALSE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE [7057] FALSE TRUE ## TRUE TRUE TRUE TRUE TRUE ## [7069] TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [7081] TRUE ## [7093] **FALSE** TRUE [7105] TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE TRUE TRUE ## [7117]TRUE TRUE TRUE TRUE TRUE TRUE [7129] TRUE TRUE ## TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE ## [7141]TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE ## [7153]TRUE FALSE TRUE TRUE TRUE TRUE FALSE TRUE ## [7165] TRUE TRUE TRUE TRUE TRUE TRUE TRUE [7177] TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE ## [7189] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE ## [7201] TRUE TRUE TRUE TRUE FALSE TRUE FALSE TRUE TRUE TRUE TRUE TRUE ## [7213]TRUE TRUE ## [7225] FALSE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE FALSE TRUE ## [7237] TRUE FALSE TRUE TRUE ## [7249] TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE [7261] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE ## TRUE TRUE TRUE ## [7273]TRUE TRUE FALSE FALSE TRUE TRUE TRUE TRUE TRUE TRUE ## [7285] TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE TRUE TRUE [7297] TRUE TRUE TRUE TRUE TRUE TRUE [7309] FALSE TRUE TRUE FALSE TRUE **FALSE** TRUE TRUE TRUE ## TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [7321] TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE ## [7333] FALSE TRUE TRUE TRUE TRUE ## [7345] TRUE ## [7357] TRUE [7369] TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE FALSE TRUE FALSE TRUE ## [7381] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE **FALSE** TRUE [7393] TRUE TRUE ## TRUE ## [7405] TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE [7417]TRUE ## TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE

## [7429] TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [7441]TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE [7453] FALSE TRUE ## TRUE FALSE TRUE ## [7465]TRUE TRUE TRUE TRUE TRUE ## [7477] TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE ## [7489] TRUE TRUE TRUE TRUE FALSE TRUE FALSE TRUE TRUE TRUE TRUE TRUE ## [7501] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE [7513] TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE TRUE ## [7525]TRUE TRUE ## TRUE TRUE TRUE TRUE TRUE [7537] TRUE TRUE TRUE TRUE FALSE TRUE FALSE ## [7549] TRUE [7561] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE [7573] TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [7585] TRUE ## [7597] TRUE ## [7609] TRUE TRUE TRUE TRUE TRUE FALSE TRUE FALSE TRUE TRUE TRUE TRUE ## [7621] TRUE ## [7633] TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE ## [7645] TRUE ## [7657] TRUE ## [7669] **FALSE** TRUE ## [7681] TRUE ## [7693] TRUE [7705] TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE FALSE TRUE TRUE FALSE ## [7717]TRUE TRUE TRUE TRUE TRUE TRUE ## [7729] FALSE TRUE ## [7741] TRUE TRUE **FALSE** TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE [7753] TRUE ## TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [7765] TRUE TRUE TRUE TRUE [7777] TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE [7789] TRUE TRUE TRUE ## TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE ## [7801] TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [7813] TRUE TRUE TRUE TRUE TRUE ## [7825] TRUE ## [7837] TRUE ## [7849] TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [7861] TRUE ## [7873] TRUE FALSE TRUE ## [7885] TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE **FALSE** TRUE TRUE TRUE ## [7897] TRUE ## [7909] TRUE FALSE ## [7921] FALSE TRUE [7933] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE [7945] TRUE TRUE TRUE FALSE ## [7957] **FALSE** TRUE [7969] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE [7981] TRUE TRUE FALSE TRUE TRUE FALSE TRUE TRUE ## TRUE FALSE TRUE FALSE ## [7993] TRUE ## [8005] **FALSE** TRUE ## [8017] TRUE TRUE FALSE FALSE TRUE FALSE TRUE TRUE FALSE ## [8029] TRUE ## [8041] TRUE ## [8053] TRUE [8065] ## TRUE FALSE TRUE FALSE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE

## [8077] TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE FALSE TRUE ## [8089] TRUE FALSE TRUE [8101] TRUE TRUE ## TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE ## [8113] FALSE TRUE TRUE FALSE TRUE TRUE FALSE ## [8125] TRUE FALSE ## [8137] TRUE [8149] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE [8161] TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE FALSE TRUE ## [8173] TRUE ## TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE [8185] TRUE TRUE TRUE ## [8197] TRUE ## [8209] TRUE TRUE TRUE TRUE TRUE [8221] TRUE TRUE ## TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE ## [8233] TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE ## [8245] TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE FALSE TRUE ## [8257] TRUE ## [8269] TRUE TRUE FALSE TRUE ## [8281] **FALSE** TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [8293] TRUE ## [8305] TRUE FALSE TRUE ## [8317] TRUE ## [8329] TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [8341] TRUE [8353] FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE FALSE ## TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE ## [8365] TRUE TRUE TRUE TRUE ## [8377] TRUE FALSE TRUE ## [8389] TRUE [8401] TRUE ## TRUE FALSE ## TRUE TRUE TRUE TRUE TRUE TRUE TRUE [8413] **FALSE** TRUE TRUE TRUE TRUE TRUE ## [8425] TRUE TRUE TRUE TRUE TRUE FALSE FALSE TRUE TRUE TRUE TRUE ## [8437] TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE ## [8449] TRUE TRUE TRUE TRUE FALSE FALSE TRUE TRUE TRUE TRUE TRUE TRUE [8461] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE ## [8473] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE ## [8485] TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE FALSE TRUE TRUE ## [8497] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE ## [8509] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE FALSE TRUE ## [8521] TRUE TRUE TRUE TRUE TRUE FALSE TRUE FALSE TRUE TRUE TRUE TRUE ## [8533] TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE ## [8545] TRUE ## [8557] TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE FALSE TRUE ## [8569] TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE **FALSE** TRUE TRUE TRUE [8581] TRUE FALSE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE ## TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE [8593] TRUE TRUE TRUE TRUE ## [8605] TRUE TRUE TRUE TRUE FALSE TRUE ## [8617] TRUE TRUE [8629] TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE ## TRUE TRUE TRUE ## [8641] TRUE ## [8653] TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE FALSE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [8665] TRUE TRUE TRUE TRUE TRUE ## [8677] TRUE TRUE TRUE **FALSE** TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE [8689] TRUE TRUE ## TRUE FALSE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE ## [8701] TRUE [8713] ## TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE

## [8725] FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE ## TRUE [8737] TRUE TRUE ## [8749] TRUE ## [8761] TRUE TRUE TRUE TRUE ## [8773] TRUE TRUE TRUE TRUE FALSE FALSE TRUE TRUE TRUE TRUE TRUE TRUE ## [8785] TRUE [8797] TRUE TRUE TRUE TRUE FALSE TRUE TRUE ## TRUE TRUE TRUE TRUE TRUE [8809] TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE ## TRUE TRUE TRUE TRUE ## [8821] TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE TRUE TRUE TRUE [8833] TRUE TRUE TRUE TRUE TRUE ## [8845] TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE ## [8857] TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE ## [8869] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [8881] TRUE ## [8893] TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [8905] TRUE TRUE FALSE TRUE TRUE TRUE TRUE FALSE FALSE TRUE TRUE TRUE ## [8917] TRUE FALSE TRUE ## [8929] TRUE FALSE ## [8941] TRUE TRUE TRUE FALSE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE ## [8953] TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE [8965] ## TRUE FALSE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [8977] TRUE FALSE TRUE ## [8989] TRUE TRUE FALSE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE [9001] TRUE ## [9013] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE [9025] ## TRUE ## [9037] TRUE [9049] TRUE ## TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [9061] TRUE TRUE TRUE TRUE TRUE [9073] TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [9085] TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE ## [9097] TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE [9109] TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE ## TRUE TRUE TRUE TRUE [9121] TRUE TRUE TRUE TRUE TRUE FALSE TRUE FALSE TRUE TRUE TRUE TRUE ## TRUE ## [9133] TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE ## [9145] TRUE ## [9157] TRUE ## [9169] TRUE ## [9181] TRUE FALSE FALSE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [9193] TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE [9205] TRUE TRUE TRUE FALSE TRUE TRUE TRUE ## TRUE TRUE TRUE ## [9217] TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE FALSE [9229] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE ## [9241] TRUE ## [9253] TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE **FALSE** TRUE TRUE TRUE [9265] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE FALSE TRUE [9277] TRUE TRUE FALSE TRUE ## TRUE TRUE TRUE TRUE TRUE TRUE FALSE FALSE ## [9289] TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE ## [9301] TRUE ## [9313] TRUE TRUE TRUE TRUE TRUE FALSE TRUE ## [9325] TRUE TRUE TRUE **FALSE** TRUE ## [9337] FALSE TRUE TRUE TRUE TRUE TRUE TRUE ## [9349] FALSE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE ## [9361] TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE

## [9373] TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE FALSE TRUE FALSE TRUE ## [9385] FALSE TRUE TRUE FALSE TRUE ## [9397] TRUE ## [9409] TRUE TRUE TRUE TRUE ## [9421] TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE FALSE ## [9433] TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE FALSE TRUE [9445] TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE FALSE TRUE TRUE TRUE [9457] TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE TRUE TRUE [9469] ## FALSE TRUE TRUE TRUE FALSE TRUE FALSE FALSE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE TRUE TRUE [9481] TRUE TRUE FALSE TRUE FALSE TRUE ## [9493] TRUE FALSE TRUE TRUE TRUE TRUE TRUE ## [9505] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [9517] TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE ## [9529] TRUE ## [9541] TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE ## [9553] TRUE ## [9565] TRUE FALSE TRUE TRUE ## [9577] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE ## [9589] TRUE ## [9601] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE ## [9613] TRUE TRUE FALSE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE ## [9625] TRUE ## [9637] TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE [9649] TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [9661] TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE ## [9673] TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE ## [9685] TRUE [9697] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE ## [9709] TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE TRUE [9721] TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE ## [9733] TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE ## [9745] TRUE FALSE ## [9757] TRUE TRUE TRUE TRUE [9769] TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE ## TRUE FALSE ## [9781] TRUE ## [9793] TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE ## [9805] FALSE TRUE ## [9817] TRUE TRUE FALSE TRUE ## [9829] TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE TRUE TRUE FALSE TRUE ## [9841] TRUE FALSE TRUE [9853] TRUE TRUE TRUE FALSE TRUE TRUE TRUE TRUE FALSE ## TRUE TRUE ## [9865] TRUE TRUE FALSE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE FALSE [9877] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE ## [9889] TRUE TRUE TRUE TRUE TRUE TRUE TRUE **FALSE** TRUE TRUE TRUE TRUE ## [9901] TRUE TRUE FALSE TRUE ## [9913] TRUE TRUE TRUE TRUE TRUE TRUE FALSE FALSE ## [9925] FALSE FALSE FALSE TRUE TRUE FALSE TRUE ## [9937] TRUE ## [9949] TRUE TRUE TRUE TRUE TRUE TRUE TRUE **FALSE** TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE ## [9961] TRUE TRUE TRUE TRUE FALSE TRUE TRUE TRUE ## [9973] TRUE [9985] TRUE TRUE TRUE TRUE TRUE TRUE ## TRUE TRUE TRUE TRUE TRUE TRUE ## [9997] TRUE TRUE FALSE TRUE

What is your conclusion?

Answer: the true value are containing in approximately 92%.

4. Repeat the steps in Question 3, but using a sample size of n = 100.

```
container=logical(1e4)
for(i in 1:1e4)
{
   X=rexp(100,1)
   my.test=t.test(X,conf.level=0.95)
   container[i]=ifelse(my.test$p.value<0.05,"Yes","No")
}
table(container)

## container
## Yes
## 10000</pre>
```

container ## printing the values of container (sometimes it may print till 1000 and omits other values)

```
[1] "Yes" "Y
##
                                                                                                                                                               [13] "Yes" "
##
                                                                                                                                                               [25] "Yes" "
   ##
                                                                                                                                                               [37] "Yes" "
##
                                                                                                                                                               [49] "Yes" "
   ##
                                                                                                                                                               [61] "Yes" "
##
                                                                                                                                                               [73] "Yes" "
##
                                                                                                                                                               [85] "Yes" "
##
                                                                                                                                                               [97] "Yes" "
##
                                                                                                                                     [109] "Yes" 
##
                                                                                                                                     [121] "Yes" 
##
                                                                                                                                     [133] "Yes" 
##
                                                                                                                                     [145] "Yes" 
##
                                                                                                                                     [157] "Yes" 
##
                                                                                                                                     [169] "Yes" 
##
                                                                                                                                     [181] "Yes" 
##
                                                                                                                                     [193] "Yes" 
##
                                                                                                                                     [205] "Yes" 
##
                                                                                                                                     [217] "Yes" 
##
                                                                                                                                     [229] "Yes" 
                                                                                                                                     [241] "Yes" 
##
                                                                                                                                     [253] "Yes" 
##
                                                                                                                                     [265] "Yes" 
##
                                                                                                                                     [277] "Yes" 
##
                                                                                                                                     [289] "Yes" 
##
##
                                                                                                                                     [301] "Yes" 
                                                                                                                                     [313] "Yes" 
##
                                                                                                                                     [325] "Yes" 
##
                                                                                                                                     [337] "Yes" 
##
                                                                                                                                     [349] "Yes" "Yes"
##
##
                                                                                                                                     [361] "Yes" 
                                                                                                                                     [373] "Yes" 
##
```

```
[385] "Yes" 
##
                                                                                                                                      [397] "Yes" 
##
                                                                                                                                  [409] "Yes" 
##
##
                                                                                                                                  [421] "Yes" 
                                                                                                                                  [433] "Yes" 
##
                                                                                                                                  [445] "Yes" 
##
                                                                                                                                  [457] "Yes" 
##
                                                                                                                                  [469] "Yes" 
##
                                                                                                                                                                                                                                                                        "Yes" 
##
                                                                                                                                  [481]
                                                                                                                                                                                                                                                                 "Yes" 
##
                                                                                                                                  [493]
                                                                                                                                      [505] "Yes" "Yes"
##
                                                                                                                                                                                                                                                                            "Yes" 
##
                                                                                                                                  [517]
                                                                                                                                                                                                                                                                            "Yes" 
##
                                                                                                                                  [541] "Yes" 
##
##
                                                                                                                                      [553] "Yes" "Yes"
                                                                                                                                  [565] "Yes" 
##
                                                                                                                                                                                                                                                                        "Yes" 
##
                                                                                                                                      [577]
                                                                                                                                      [589] "Yes" "Yes"
##
                                                                                                                                  [601] "Yes" 
##
                                                                                                                                  [613] "Yes" 
##
                                                                                                                                  [625] "Yes" 
##
                                                                                                                                  [637] "Yes" 
##
##
                                                                                                                                  [649] "Yes" 
                                                                                                                                  [661] "Yes" 
##
                                                                                                                                  [673] "Yes" 
##
                                                                                                                                      [685] "Yes" 
##
                                                                                                                                                                                                                                                                            "Yes" 
##
                                                                                                                                  [697]
                                                                                                                                  [709] "Yes" 
##
                                                                                                                                  [721] "Yes" 
##
                                                                                                                                  [733] "Yes" 
##
                                                                                                                                  [745] "Yes" 
##
                                                                                                                                                                                                                                                                            "Yes" 
##
                                                                                                                                  [757]
##
                                                                                                                                  [769] "Yes" 
                                                                                                                                                                                                                                                                 "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" 
##
                                                                                                                                  [781]
                                                                                                                                                                                                                                                                            "Yes" 
##
                                                                                                                                  [793]
                                                                                                                                                                                                                                                                     "Yes" 
##
                                                                                                                                  [817] "Yes" 
##
##
                                                                                                                                  [829] "Yes" 
                                                                                                                                  [841] "Yes" 
##
                                                                                                                                  [853] "Yes" 
##
                                                                                                                                  [865] "Yes" 
##
                                                                                                                                  [877] "Yes" 
##
                                                                                                                                  [889] "Yes" 
##
##
                                                                                                                                  [901] "Yes" 
                                                                                                                                  [913] "Yes" 
##
                                                                                                                                  [925] "Yes" 
##
                                                                                                                                                                                                                                                                            "Yes" 
##
                                                                                                                                  [937]
                                                                                                                                  [949] "Yes" 
##
                                                                                                                                  [961] "Yes" 
##
                                                                                                                                                                                                                                                                            "Yes" 
                                                                                                                                  [973]
##
                                                                                                                                                                                                                                                                            "Yes" 
##
                                                                                                                                  [985]
                                                                                                                                  [997] "Yes" 
##
                                                                                                         [1009] "Yes" "Yes"
                                                                                                         [1021] "Yes" "Yes"
```

```
[1033] "Yes" "Yes"
   ##
                                                                                                    [1045] "Yes" "Yes"
                                                                                                    [1057] "Yes" "Yes"
   ##
                                                                                                    [1069] "Yes" "Yes"
                                                                                                    [1081] "Yes" "Yes"
   ##
   ##
                                                                                                    [1093] "Yes" "Yes"
                                                                                                    [1105] "Yes" "Yes"
   ##
                                                                                                    [1117] "Yes" "Yes"
   ##
                                                                                                    [1129] "Yes" "Yes"
   ##
                                                                                                    [1141] "Yes" "Yes"
   ##
                                                                                                    [1153] "Yes" "Yes"
   ##
                                                                                                    [1165] "Yes" "Yes"
   ##
                                                                                                                                                                                                                                                      "Yes" 
   ##
##
                                                                                                    [1189] "Yes" "Yes"
                                                                                                    [1201] "Yes" "Yes"
                                                                                                    [1213] "Yes" "Yes"
   ##
                                                                                                    [1225] "Yes" "Yes"
   ##
                                                                                                    [1237] "Yes" "Yes"
   ##
                                                                                                    [1249] "Yes" "Yes"
                                                                                                    [1261] "Yes" "Yes"
   ##
                                                                                                    [1273] "Yes" "Yes"
   ##
                                                                                                    [1285] "Yes" "Yes"
   ##
                                                                                                    [1297] "Yes" "Yes"
   ##
                                                                                                    [1309] "Yes" "Yes"
   ##
                                                                                                    [1321] "Yes" "Yes"
   ##
                                                                                                    [1333] "Yes" "Yes"
                                                                                                                                                                                                                                                         "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" 
   ##
                                                                                                    [1345]
                                                                                                                                                                                                                                                         "Yes" 
   ##
                                                                                                    [1369] "Yes" "Yes"
   ##
                                                                                                    [1381] "Yes" "Yes"
                                                                                                    [1393] "Yes" "Yes"
   ##
                                                                                                                                                                                                                                                      "Yes" 
   ##
                                                                                                    Γ1405]
   ##
                                                                                                    [1417] "Yes" "Yes"
                                                                                                    [1429] "Yes" "Yes"
   ##
                                                                                                                                                                                                                                                      "Yes" 
   ##
                                                                                                    [1441]
                                                                                                                                                                                                                                                      "Yes" 
   ##
                                                                                                    [1465] "Yes" "Yes"
   ##
   ##
                                                                                                    [1477] "Yes" "Yes"
                                                                                                    [1489] "Yes" "Yes"
   ##
                                                                                                    [1501] "Yes" "Yes"
   ##
                                                                                                    [1513] "Yes" "Yes"
   ##
                                                                                                    [1525] "Yes" "Yes"
   ##
                                                                                                                                                                                                                                                      "Yes" 
                                                                                                    [1537]
   ##
   ##
                                                                                                    [1549] "Yes" "Yes"
                                                                                                    [1561] "Yes" "Yes"
   ##
                                                                                                    [1573] "Yes" "Yes"
   ##
                                                                                                                                                                                                                                                         "Yes" 
   ##
                                                                                                    [1585]
                                                                                                    [1597] "Yes" "Yes"
   ##
                                                                                                    [1609] "Yes" "Yes"
                                                                                                                                                                                                                                                         "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" 
                                                                                                    [1621]
   ##
                                                                                                                                                                                                                                                         "Yes" 
   ##
                                                                                                    Γ1633]
                                                                                                    [1645] "Yes" "Yes"
   ##
                                                                                                    [1657] "Yes" "Yes"
   ##
                                                                                                 [1669] "Yes" "Yes"
   ##
```

```
[1681] "Yes" "Yes"
##
                                                                                                      [1693] "Yes" "Yes"
                                                                                                      [1705] "Yes" "Yes"
##
                                                                                                      [1717] "Yes" "Yes"
                                                                                                      [1729] "Yes" "Yes"
##
##
                                                                                                      [1741] "Yes" "Yes"
                                                                                                      [1753] "Yes" "Yes"
##
                                                                                                      [1765] "Yes" "Yes"
##
                                                                                                      [1777] "Yes" "Yes"
##
                                                                                                      [1789] "Yes" "Yes"
##
                                                                                                      [1801] "Yes" "Yes"
##
                                                                                                      [1813] "Yes" "Yes"
##
                                                                                                                                                                                                                                                                    "Yes" 
##
                                                                                                      [1837] "Yes" "Yes"
##
                                                                                                      [1849] "Yes" "Yes"
                                                                                                      [1861] "Yes" "Yes"
##
                                                                                                                                                                                                                                                                "Yes" 
##
                                                                                                      Γ1873]
                                                                                                      [1885] "Yes" "Yes"
##
                                                                                                      [1897] "Yes" "Yes"
                                                                                                      [1909] "Yes" "Yes"
##
                                                                                                      [1921] "Yes" "Yes"
##
                                                                                                      [1933] "Yes" "Yes"
##
                                                                                                      [1945] "Yes" "Yes"
##
                                                                                                      [1957] "Yes" "Yes"
##
                                                                                                      [1969] "Yes" "Yes"
##
                                                                                                      [1981] "Yes" "Yes"
                                                                                                                                                                                                                                                                    "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" 
##
                                                                                                      Г19937
                                                                                                      [2005] "Yes" "Yes"
##
                                                                                                      [2017] "Yes" "Yes"
##
                                                                                                      [2029] "Yes" "Yes"
                                                                                                      [2041] "Yes" "Yes"
##
                                                                                                                                                                                                                                                          "Yes" 
##
                                                                                                      [2053]
##
                                                                                                      [2065] "Yes" "Yes"
                                                                                                                                                                                                                                                                "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" 
##
                                                                                                      [2077]
                                                                                                      [2089] "Yes" "Yes"
##
                                                                                                      [2101] "Yes" "Yes"
##
                                                                                                      [2113] "Yes" "Yes"
##
##
                                                                                                      [2125] "Yes" "Yes"
                                                                                                      [2137] "Yes" "Yes"
##
                                                                                                      [2149] "Yes" "Yes"
##
                                                                                                      [2161] "Yes" "Yes"
##
                                                                                                   [2173] "Yes" "Yes"
##
                                                                                                      [2185] "Yes" "Yes"
##
##
                                                                                                      [2197] "Yes" "Yes"
                                                                                                      [2209] "Yes" "Yes"
##
                                                                                                      [2221] "Yes" "Yes"
##
                                                                                                      [2233] "Yes" "Yes"
##
                                                                                                      [2245] "Yes" "Yes"
##
                                                                                                      [2257] "Yes" "Yes"
                                                                                                                                                                                                                                                                "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" 
                                                                                                   [2269]
##
                                                                                                                                                                                                                                                                    "Yes" 
##
                                                                                                      [2281]
                                                                                                      [2293] "Yes" "Yes"
##
                                                                                                      [2305] "Yes" "Yes"
##
                                                                                                   [2317] "Yes" "Yes"
##
```

```
[2329] "Yes" "Yes"
##
                                                                                                              [2341] "Yes" "Yes"
                                                                                                              [2353] "Yes" "Yes"
##
##
                                                                                                              [2365] "Yes" "Yes"
                                                                                                              [2377] "Yes" "Yes"
##
                                                                                                              [2389] "Yes" "Yes"
##
                                                                                                              [2401] "Yes" "Yes"
##
                                                                                                              [2413] "Yes" "Yes"
##
                                                                                                              [2425] "Yes" "Yes"
##
                                                                                                              [2437] "Yes" "Yes"
##
                                                                                                              [2449] "Yes" "Yes"
##
                                                                                                              [2461] "Yes" "Yes"
##
                                                                                                                                                                                                                                                                                    "Yes" 
##
                                                                                                              [2485] "Yes" "Yes"
##
                                                                                                              [2497] "Yes" "Yes"
                                                                                                              [2509] "Yes" "Yes"
##
                                                                                                                                                                                                                                                                                    "Yes" 
##
                                                                                                              [2521]
                                                                                                              [2533] "Yes" "Yes"
##
                                                                                                              [2545] "Yes" "Yes"
                                                                                                              [2557] "Yes" "Yes"
##
                                                                                                              [2569] "Yes" "Yes"
##
                                                                                                              [2581] "Yes" "Yes"
##
                                                                                                              [2593] "Yes" "Yes"
##
                                                                                                              [2605] "Yes" "Yes"
##
                                                                                                              [2617] "Yes" "Yes"
##
                                                                                                              [2629] "Yes" "Yes"
##
                                                                                                                                                                                                                                                                                        "Yes" 
##
                                                                                                              Γ2641]
                                                                                                              [2653] "Yes" "Yes"
##
                                                                                                              [2665] "Yes" "Yes"
##
                                                                                                              [2677] "Yes" "Yes"
                                                                                                              [2689] "Yes" "Yes"
##
                                                                                                                                                                                                                                                                                    "Yes" 
##
                                                                                                              [2701]
##
                                                                                                              [2713] "Yes" "Yes"
                                                                                                              [2725] "Yes" "Yes"
##
                                                                                                                                                                                                                                                                                    "Yes" 
                                                                                                              [2737]
##
                                                                                                              [2749] "Yes" "Yes"
##
                                                                                                              [2761] "Yes" "Yes"
##
##
                                                                                                              [2773] "Yes" "Yes"
                                                                                                              [2785] "Yes" "Yes"
##
                                                                                                              [2797] "Yes" "Yes"
##
                                                                                                              [2809] "Yes" "Yes"
##
                                                                                                              [2821] "Yes" "Yes"
##
                                                                                                              [2833] "Yes" "Yes"
##
##
                                                                                                              [2845] "Yes" "Yes"
                                                                                                              [2857] "Yes" "Yes"
##
                                                                                                              [2869] "Yes" "Yes"
##
                                                                                                                                                                                                                                                                                        "Yes" 
##
                                                                                                              [2881]
                                                                                                              [2893] "Yes" "Yes"
##
                                                                                                              [2905] "Yes" "Yes"
                                                                                                                                                                                                                                                                                        "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" 
                                                                                                              [2917]
##
                                                                                                                                                                                                                                                                                        "Yes" 
##
                                                                                                              [2929]
                                                                                                              [2941] "Yes" "Yes"
##
                                                                                                              [2953] "Yes" "Yes"
##
                                                                                                          [2965] "Yes" "Yes"
##
```

```
[2977] "Yes" "Yes"
##
                                                                                              [2989] "Yes" "Yes"
                                                                                              [3001] "Yes" "Yes"
##
                                                                                              [3013] "Yes" "Yes"
##
                                                                                              [3025] "Yes" "Yes"
##
##
                                                                                              [3037] "Yes" "Yes"
                                                                                              [3049] "Yes" "Yes"
##
                                                                                              [3061] "Yes" "Yes"
##
                                                                                              [3073] "Yes" "Yes"
##
                                                                                              [3085] "Yes" "Yes"
##
                                                                                              [3097] "Yes" "Yes"
##
                                                                                              [3109] "Yes" "Yes"
##
                                                                                                                                                                                                                                            "Yes" 
##
                                                                                              [3121]
                                                                                              [3133] "Yes" "Yes"
##
                                                                                              [3145] "Yes" "Yes"
                                                                                              [3157] "Yes" "Yes"
##
                                                                                              [3169] "Yes" "Yes"
##
                                                                                              [3181] "Yes" "Yes"
##
                                                                                              [3193] "Yes" "Yes"
                                                                                              [3205] "Yes" "Yes"
##
                                                                                              [3217] "Yes" "Yes"
##
                                                                                              [3229] "Yes" "Yes"
##
                                                                                              [3241] "Yes" "Yes"
##
                                                                                              [3253] "Yes" "Yes"
##
                                                                                              [3265] "Yes" "Yes"
##
                                                                                              [3277] "Yes" "Yes"
##
                                                                                                                                                                                                                                                "Yes" 
##
                                                                                              [3289]
                                                                                                                                                                                                                                            "Yes" 
##
                                                                                              Γ3301]
                                                                                              [3313] "Yes" "Yes"
##
                                                                                              [3325] "Yes" "Yes"
                                                                                              [3337] "Yes" "Yes"
##
                                                                                              [3349] "Yes" "Yes"
##
##
                                                                                              [3361] "Yes" "Yes"
                                                                                              [3373] "Yes" "Yes"
##
                                                                                                                                                                                                                                                "Yes" 
##
                                                                                              [3385]
                                                                                                                                                                                                                                                "Yes" 
##
                                                                                              [3397]
                                                                                              [3409] "Yes" "Yes"
##
##
                                                                                              [3421] "Yes" "Yes"
                                                                                              [3433] "Yes" "Yes"
##
                                                                                              [3445] "Yes" "Yes"
##
                                                                                              [3457] "Yes" "Yes"
##
                                                                                              [3469] "Yes" "Yes"
##
                                                                                                                                                                                                                                            "Yes" 
                                                                                              [3481]
##
##
                                                                                              [3493] "Yes" "Yes"
                                                                                              [3505] "Yes" "Yes"
##
                                                                                              [3517] "Yes" "Yes"
##
                                                                                                                                                                                                                                            "Yes" 
##
                                                                                              [3529]
                                                                                              [3541] "Yes" "Yes"
##
                                                                                              [3553] "Yes" "Yes"
                                                                                              [3565] "Yes" "Yes"
##
                                                                                                                                                                                                                                                "Yes" 
##
                                                                                              [3577]
                                                                                              [3589] "Yes" "Yes"
##
                                                                                              [3601] "Yes" "Yes"
##
                                                                                              [3613] "Yes" "Yes"
##
```

```
[3625] "Yes" "Yes"
##
                                                                                     [3637] "Yes" "Yes"
                                                                                     [3649] "Yes" "Yes"
##
                                                                                     [3661] "Yes" "Yes"
##
                                                                                     [3673] "Yes" "Yes"
##
##
                                                                                     [3685] "Yes" "Yes"
                                                                                     [3697] "Yes" "Yes"
##
                                                                                     [3709] "Yes" "Yes"
##
                                                                                     [3721] "Yes" "Yes"
##
                                                                                     [3733] "Yes" "Yes"
##
                                                                                     [3745] "Yes" "Yes"
##
                                                                                                                                                                                                                       "Yes" 
##
                                                                                     [3757]
                                                                                     [3769] "Yes" "Yes"
##
                                                                                     [3781] "Yes" "Yes"
##
                                                                                     [3793] "Yes" "Yes"
                                                                                     [3805] "Yes" "Yes"
##
                                                                                                                                                                                                                    "Yes" 
##
                                                                                     [3817]
                                                                                     [3829] "Yes" "Yes"
##
                                                                                     [3841] "Yes" "Yes"
                                                                                     [3853] "Yes" "Yes"
##
                                                                                     [3865] "Yes" "Yes"
##
                                                                                     [3877] "Yes" "Yes"
##
                                                                                     [3889] "Yes" "Yes"
##
                                                                                     [3901] "Yes" "Yes"
##
                                                                                     [3913] "Yes" "Yes"
##
                                                                                     [3925] "Yes" "Yes"
                                                                                                                                                                                                                       "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" 
##
                                                                                     [3937]
                                                                                     [3949] "Yes" "Yes"
##
                                                                                     [3961] "Yes" "Yes"
##
                                                                                     [3973] "Yes" "Yes"
                                                                                     [3985] "Yes" "Yes"
##
                                                                                                                                                                                                                    "Yes" 
##
                                                                                     [3997]
##
                                                                                     [4009] "Yes" "Yes"
                                                                                     [4021] "Yes" "Yes"
##
                                                                                                                                                                                                                    "Yes" 
##
                                                                                     [4033]
                                                                                                                                                                                                                 "Yes" 
##
                                                                                     [4045]
                                                                                     [4057] "Yes" "Yes"
##
##
                                                                                     [4069] "Yes" "Yes"
                                                                                     [4081] "Yes" "Yes"
##
                                                                                     [4093] "Yes" "Yes"
##
                                                                                     [4105] "Yes" "Yes"
##
                                                                                     [4117] "Yes" "Yes"
##
                                                                                     [4129] "Yes" "Yes"
##
##
                                                                                     [4141] "Yes" "Yes"
                                                                                     [4153] "Yes" "Yes"
##
                                                                                     [4165] "Yes" "Yes"
##
                                                                                     [4177] "Yes" "Yes"
##
                                                                                     [4189] "Yes" "Yes"
##
                                                                                     [4201] "Yes" "Yes"
                                                                                  [4213]
                                                                                                                                                                                                                    "Yes" 
##
                                                                                                                                                                                                                       "Yes" 
##
                                                                                     [4225]
                                                                                     [4237] "Yes" "Yes"
##
                                                                                     [4249] "Yes" "Yes"
##
                                                                                  [4261] "Yes" "Yes"
```

```
[4273] "Yes" "Yes"
##
                                                                                             [4285] "Yes" "Yes"
                                                                                             [4297] "Yes" "Yes"
##
##
                                                                                             [4309] "Yes" "Yes"
                                                                                             [4321] "Yes" "Yes"
##
##
                                                                                             [4333] "Yes" "Yes"
                                                                                             [4345] "Yes" "Yes"
##
                                                                                             [4357] "Yes" "Yes"
##
                                                                                             [4369] "Yes" "Yes"
##
                                                                                             [4381] "Yes" "Yes"
##
                                                                                             [4393] "Yes" "Yes"
##
                                                                                             [4405] "Yes" "Yes"
##
                                                                                                                                                                                                                                           "Yes" 
##
                                                                                             [4429] "Yes" "Yes"
##
                                                                                             [4441] "Yes" "Yes"
                                                                                             [4453] "Yes" "Yes"
##
                                                                                                                                                                                                                                           "Yes" 
##
                                                                                             [4465]
                                                                                             [4477] "Yes" "Yes"
##
                                                                                             [4489] "Yes" "Yes"
                                                                                             [4501] "Yes" "Yes"
##
                                                                                             [4513] "Yes" "Yes"
##
                                                                                             [4525] "Yes" "Yes"
##
                                                                                             [4537] "Yes" "Yes"
##
                                                                                             [4549] "Yes" "Yes"
##
                                                                                             [4561] "Yes" "Yes"
##
                                                                                             [4573] "Yes" "Yes"
                                                                                                                                                                                                                                           "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" 
##
                                                                                             [4585]
                                                                                                                                                                                                                                           "Yes" 
                                                                                             [4597]
##
                                                                                             [4609] "Yes" "Yes"
##
                                                                                             [4621] "Yes" "Yes"
                                                                                             [4633] "Yes" "Yes"
##
                                                                                                                                                                                                                                        "Yes" 
##
                                                                                             [4645]
##
                                                                                             [4657] "Yes" "Yes"
                                                                                             [4669] "Yes" "Yes"
##
                                                                                                                                                                                                                                           "Yes" 
##
                                                                                             [4681]
                                                                                                                                                                                                                                  "Yes" 
##
                                                                                             [4705] "Yes" "Yes"
##
##
                                                                                             [4717] "Yes" "Yes"
                                                                                             [4729] "Yes" "Yes"
##
                                                                                             [4741] "Yes" "Yes"
##
                                                                                             [4753] "Yes" "Yes"
##
                                                                                             [4765] "Yes" "Yes"
##
                                                                                                                                                                                                                                        "Yes" 
                                                                                             [4777]
##
##
                                                                                             [4789] "Yes" "Yes"
                                                                                             [4801] "Yes" "Yes"
##
                                                                                             [4813] "Yes" "Yes"
##
                                                                                                                                                                                                                                        "Yes" 
##
                                                                                             [4825]
                                                                                             [4837] "Yes" "Yes"
##
                                                                                             [4849] "Yes" "Yes"
                                                                                                                                                                                                                                        "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" 
                                                                                             [4861]
##
                                                                                                                                                                                                                                        "Yes" 
##
                                                                                             [4873]
                                                                                             [4885] "Yes" "Yes"
##
                                                                                             [4897] "Yes" "Yes"
##
                                                                                          [4909] "Yes" "Yes"
##
```

```
[4921] "Yes" "Yes"
##
                                                                                     [4933] "Yes" "Yes"
                                                                                     [4945] "Yes" "Yes"
##
                                                                                     [4957] "Yes" "Yes"
                                                                                     [4969] "Yes" "Yes"
##
                                                                                     [4981] "Yes" "Yes"
##
                                                                                     [4993] "Yes" "Yes"
##
                                                                                     [5005] "Yes" "Yes"
##
                                                                                     [5017] "Yes" "Yes"
##
                                                                                     [5029] "Yes" "Yes"
##
                                                                                     [5041] "Yes" "Yes"
##
                                                                                     [5053] "Yes" "Yes"
##
                                                                                     [5065] "Yes" "Yes"
##
                                                                                     [5077] "Yes" "Yes"
##
                                                                                     [5089] "Yes" "Yes"
                                                                                     [5101] "Yes" "Yes"
##
                                                                                     [5113] "Yes" "Yes"
##
                                                                                     [5125] "Yes" "Yes"
##
                                                                                     [5137] "Yes" "Yes"
                                                                                     [5149] "Yes" "Yes"
##
                                                                                     [5161] "Yes" "Yes"
##
                                                                                     [5173] "Yes" "Yes"
##
                                                                                     [5185] "Yes" "Yes"
##
                                                                                     [5197] "Yes" "Yes"
##
                                                                                     [5209] "Yes" "Yes"
##
                                                                                     [5221] "Yes" "Yes"
##
                                                                                                                                                                                                                       "Yes" 
##
                                                                                     [5233]
                                                                                                                                                                                                                       "Yes" 
##
                                                                                     [5245]
                                                                                     [5257] "Yes" "Yes"
##
                                                                                     [5269] "Yes" "Yes"
                                                                                     [5281] "Yes" "Yes"
##
                                                                                                                                                                                                               "Yes" 
##
                                                                                     [5293]
##
                                                                                     [5305] "Yes" "Yes"
                                                                                                                                                                                                                    "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" 
##
                                                                                     Γ5317]
                                                                                                                                                                                                                    "Yes" 
##
                                                                                     [5329]
                                                                                     [5341] "Yes" "Yes"
##
                                                                                     [5353] "Yes" "Yes"
##
##
                                                                                     [5365] "Yes" "Yes"
                                                                                     [5377] "Yes" "Yes"
##
                                                                                     [5389] "Yes" "Yes"
##
                                                                                     [5401] "Yes" "Yes"
##
                                                                                     [5413] "Yes" "Yes"
##
                                                                                     [5425] "Yes" "Yes"
##
##
                                                                                     [5437] "Yes" "Yes"
                                                                                     [5449] "Yes" "Yes"
##
                                                                                     [5461] "Yes" "Yes"
##
                                                                                                                                                                                                                    "Yes" 
##
                                                                                     [5485] "Yes" "Yes"
##
                                                                                     [5497] "Yes" "Yes"
                                                                                     [5509] "Yes" "Yes"
##
                                                                                                                                                                                                                       "Yes" 
##
                                                                                     [5521]
                                                                                     [5533] "Yes" "Yes"
##
                                                                                     [5545] "Yes" "Yes"
##
                                                                                     [5557] "Yes" "Yes"
##
```

```
[5569] "Yes" "Yes"
##
                                                                                                  [5581] "Yes" "Yes"
                                                                                                  [5593] "Yes" "Yes"
##
                                                                                                  [5605] "Yes" "Yes"
##
                                                                                                  [5617] "Yes" "Yes"
##
##
                                                                                                  [5629] "Yes" "Yes"
                                                                                                  [5641] "Yes" "Yes"
##
                                                                                                  [5653] "Yes" "Yes"
##
                                                                                                  [5665] "Yes" "Yes"
##
                                                                                                  [5677] "Yes" "Yes"
##
                                                                                                  [5689] "Yes" "Yes"
##
                                                                                                  [5701] "Yes" "Yes"
##
                                                                                                                                                                                                                                                      "Yes" 
##
                                                                                                  [5713]
                                                                                                  [5725] "Yes" "Yes"
##
                                                                                                  [5737] "Yes" "Yes"
                                                                                                  [5749] "Yes" "Yes"
##
                                                                                                                                                                                                                                                "Yes" 
##
                                                                                                  [5761]
                                                                                                  [5773] "Yes" "Yes"
##
                                                                                                  [5785] "Yes" "Yes"
                                                                                                  [5797] "Yes" "Yes"
##
                                                                                                  [5809] "Yes" "Yes"
##
                                                                                                  [5821] "Yes" "Yes"
##
                                                                                                  [5833] "Yes" "Yes"
##
                                                                                                  [5845] "Yes" "Yes"
##
                                                                                                  [5857] "Yes" "Yes"
##
                                                                                                  [5869] "Yes" "Yes"
##
                                                                                                                                                                                                                                                          "Yes" 
##
                                                                                                  [5881]
                                                                                                                                                                                                                                                      "Yes" 
##
                                                                                                  [5893]
                                                                                                  [5905] "Yes" "Yes"
##
                                                                                                  [5917] "Yes" "Yes"
                                                                                                  [5929] "Yes" "Yes"
##
                                                                                                                                                                                                                                                          "Yes" 
##
                                                                                                  [5941]
##
                                                                                                  [5953] "Yes" "Yes"
                                                                                                  [5965] "Yes" "Yes"
##
                                                                                                                                                                                                                                                          "Yes" 
##
                                                                                                  [5977]
                                                                                                  [5989] "Yes" "Yes"
##
                                                                                                  [6001] "Yes" "Yes"
##
##
                                                                                                  [6013] "Yes" "Yes"
                                                                                                  [6025] "Yes" "Yes"
##
                                                                                                  [6037] "Yes" "Yes"
##
                                                                                                  [6049] "Yes" "Yes"
##
                                                                                                  [6061] "Yes" "Yes"
##
                                                                                                  [6073] "Yes" "Yes"
##
##
                                                                                                  [6085] "Yes" "Yes"
                                                                                                  [6097] "Yes" "Yes"
##
                                                                                                  [6109] "Yes" "Yes"
##
                                                                                                                                                                                                                                                      "Yes" 
##
                                                                                                  [6121]
                                                                                                  [6133] "Yes" "Yes"
##
                                                                                                  [6145] "Yes" "Yes"
                                                                                                  [6157] "Yes" "Yes"
##
                                                                                                                                                                                                                                                "Yes" 
##
                                                                                                  [6169]
                                                                                                  [6181] "Yes" "Yes"
##
                                                                                                  [6193] "Yes" "Yes"
##
                                                                                                  [6205] "Yes" "Yes"
##
```

```
[6217] "Yes" "Yes"
##
                                                                                                  [6229] "Yes" "Yes"
                                                                                                  [6241] "Yes" "Yes"
##
                                                                                                  [6253] "Yes" "Yes"
##
                                                                                                  [6265] "Yes" "Yes"
##
##
                                                                                                  [6277] "Yes" "Yes"
                                                                                                  [6289] "Yes" "Yes"
##
                                                                                                  [6301] "Yes" "Yes"
##
                                                                                                  [6313] "Yes" "Yes"
##
                                                                                                  [6325] "Yes" "Yes"
##
                                                                                                  [6337] "Yes" "Yes"
##
                                                                                                  [6349] "Yes" "Yes"
##
                                                                                                                                                                                                                                                          "Yes" 
##
                                                                                                  [6361]
                                                                                                  [6373] "Yes" "Yes"
##
                                                                                                  [6385] "Yes" "Yes"
                                                                                                  [6397] "Yes" "Yes"
##
                                                                                                                                                                                                                                                "Yes" 
##
                                                                                                  [6409]
                                                                                                  [6421] "Yes" "Yes"
##
                                                                                                  [6433] "Yes" "Yes"
                                                                                                  [6445] "Yes" "Yes"
##
                                                                                                  [6457] "Yes" "Yes"
##
                                                                                                  [6469] "Yes" "Yes"
##
                                                                                                  [6481] "Yes" "Yes"
##
                                                                                                  [6493] "Yes" "Yes"
##
                                                                                                  [6505] "Yes" "Yes"
##
                                                                                                  [6517] "Yes" "Yes"
                                                                                                                                                                                                                                                          "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" 
##
                                                                                                  [6529]
                                                                                                                                                                                                                                                          "Yes" 
##
                                                                                                  [6541]
                                                                                                  [6553] "Yes" "Yes"
##
                                                                                                  [6565] "Yes" "Yes"
                                                                                                  [6577] "Yes" "Yes"
##
                                                                                                                                                                                                                                                      "Yes" 
##
                                                                                                  [6589]
##
                                                                                                  [6601] "Yes" "Yes"
                                                                                                  [6613] "Yes" "Yes"
##
                                                                                                                                                                                                                                                          "Yes" 
##
                                                                                                  [6625]
                                                                                                                                                                                                                                                      "Yes" 
##
                                                                                                  [6637]
                                                                                                  [6649] "Yes" "Yes"
##
##
                                                                                                  [6661] "Yes" "Yes"
                                                                                                  [6673] "Yes" "Yes"
##
                                                                                                  [6685] "Yes" "Yes"
##
                                                                                                  [6697] "Yes" "Yes"
##
                                                                                                  [6709] "Yes" "Yes"
##
                                                                                                  [6721] "Yes" "Yes"
##
##
                                                                                                  [6733] "Yes" "Yes"
                                                                                                  [6745] "Yes" "Yes"
   ##
                                                                                                  [6757] "Yes" "Yes"
##
                                                                                                                                                                                                                                                      "Yes" 
##
                                                                                                  [6769]
                                                                                                  [6781] "Yes" "Yes"
##
                                                                                                  [6793] "Yes" "Yes"
                                                                                                  [6805] "Yes" "Yes"
##
                                                                                                                                                                                                                                                          "Yes" 
##
                                                                                                  [6817]
                                                                                                  [6829] "Yes" "Yes"
##
                                                                                                  [6841] "Yes" "Yes"
##
                                                                                                  [6853] "Yes" "Yes"
##
```

```
[6865] "Yes" "Yes"
##
                                                                                                      [6877] "Yes" "Yes"
                                                                                                      [6889] "Yes" "Yes"
##
                                                                                                      [6901] "Yes" "Yes"
##
                                                                                                      [6913] "Yes" "Yes"
##
##
                                                                                                      [6925] "Yes" "Yes"
                                                                                                      [6937] "Yes" "Yes"
##
                                                                                                      [6949] "Yes" "Yes"
##
                                                                                                      [6961] "Yes" "Yes"
##
                                                                                                      [6973] "Yes" "Yes"
##
                                                                                                      [6985] "Yes" "Yes"
##
                                                                                                                                                                                                                                                                    "Yes" 
##
                                                                                                      [6997]
                                                                                                      [7009] "Yes" "Yes"
##
##
                                                                                                      [7021] "Yes" "Yes"
                                                                                                      [7033] "Yes" "Yes"
                                                                                                      [7045] "Yes" "Yes"
##
                                                                                                                                                                                                                                                                "Yes" 
##
                                                                                                      [7057]
                                                                                                      [7069] "Yes" "Yes"
##
                                                                                                      [7081] "Yes" "Yes"
                                                                                                      [7093] "Yes" "Yes"
##
                                                                                                      [7105] "Yes" "Yes"
##
                                                                                                      [7117] "Yes" "Yes"
##
                                                                                                      [7129] "Yes" "Yes"
##
                                                                                                      [7141] "Yes" "Yes"
##
                                                                                                      [7153] "Yes" "Yes"
##
                                                                                                      [7165] "Yes" "Yes"
##
                                                                                                                                                                                                                                                                    "Yes" 
##
                                                                                                      [7177]
                                                                                                      [7189] "Yes" "Yes"
##
                                                                                                      [7201] "Yes" "Yes"
##
                                                                                                      [7213] "Yes" "Yes"
                                                                                                      [7225] "Yes" "Yes"
##
                                                                                                                                                                                                                                                                "Yes" 
##
                                                                                                      [7237]
##
                                                                                                      [7249] "Yes" "Yes"
                                                                                                      [7261] "Yes" "Yes"
##
                                                                                                                                                                                                                                                                    "Yes" 
##
                                                                                                      [7273]
                                                                                                                                                                                                                                                                    "Yes" 
##
                                                                                                      [7297] "Yes" "Yes"
##
##
                                                                                                      [7309] "Yes" "Yes"
                                                                                                      [7321] "Yes" "Yes"
##
                                                                                                      [7333] "Yes" "Yes"
##
                                                                                                      [7345] "Yes" "Yes"
##
                                                                                                      [7357] "Yes" "Yes"
##
                                                                                                      [7369] "Yes" "Yes"
##
##
                                                                                                      [7381] "Yes" "Yes"
                                                                                                      [7393] "Yes" "Yes"
##
                                                                                                      [7405] "Yes" "Yes"
##
                                                                                                                                                                                                                                                                    "Yes" 
                                                                                                      [7417]
##
                                                                                                      [7429] "Yes" "Yes"
##
                                                                                                      [7441] "Yes" "Yes"
                                                                                                                                                                                                                                                                    "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" 
                                                                                                      [7453]
##
                                                                                                                                                                                                                                                                    "Yes" 
##
                                                                                                      [7465]
                                                                                                      [7477] "Yes" "Yes"
##
                                                                                                      [7489] "Yes" "Yes"
##
                                                                                                   [7501] "Yes" "Yes"
##
```

```
[7513] "Yes" "Yes"
##
                                                                                                          [7525] "Yes" "Yes"
                                                                                                          [7537] "Yes" "Yes"
##
                                                                                                          [7549] "Yes" "Yes"
##
                                                                                                          [7561] "Yes" "Yes"
##
##
                                                                                                          [7573] "Yes" "Yes"
                                                                                                          [7585] "Yes" "Yes"
##
                                                                                                          [7597] "Yes" "Yes"
##
                                                                                                          [7609] "Yes" "Yes"
##
                                                                                                          [7621] "Yes" "Yes"
##
                                                                                                          [7633] "Yes" "Yes"
##
                                                                                                                                                                                                                                                                          "Yes" 
##
                                                                                                          [7645]
                                                                                                                                                                                                                                                                              "Yes" 
##
                                                                                                          [7669] "Yes" "Yes"
##
                                                                                                          [7681] "Yes" "Yes"
##
                                                                                                          [7693] "Yes" "Yes"
##
                                                                                                                                                                                                                                                                      "Yes" 
##
                                                                                                          [7705]
                                                                                                          [7717] "Yes" "Yes"
##
                                                                                                          [7729] "Yes" "Yes"
##
                                                                                                          [7741] "Yes" "Yes"
##
                                                                                                          [7753] "Yes" "Yes"
##
                                                                                                          [7765] "Yes" "Yes"
##
                                                                                                          [7777] "Yes" "Yes"
##
                                                                                                          [7789] "Yes" "Yes"
##
                                                                                                          [7801] "Yes" "Yes"
##
                                                                                                          [7813] "Yes" "Yes"
##
                                                                                                                                                                                                                                                                              "Yes" 
##
                                                                                                          [7825]
                                                                                                                                                                                                                                                                              "Yes" 
##
                                                                                                          [7837]
                                                                                                          [7849] "Yes" "Yes"
##
                                                                                                          [7861] "Yes" "Yes"
                                                                                                          [7873] "Yes" "Yes"
##
                                                                                                                                                                                                                                                                              "Yes" 
##
                                                                                                          [7885]
##
                                                                                                          [7897] "Yes" "Yes"
                                                                                                          [7909] "Yes" "Yes"
##
                                                                                                                                                                                                                                                                              "Yes" 
##
                                                                                                          [7921]
                                                                                                                                                                                                                                                                              "Yes" 
##
                                                                                                          [7933]
                                                                                                          [7945] "Yes" "Yes"
##
##
                                                                                                          [7957] "Yes" "Yes"
                                                                                                          [7969] "Yes" "Yes"
##
                                                                                                          [7981] "Yes" "Yes"
##
                                                                                                          [7993] "Yes" "Yes"
##
                                                                                                          [8005] "Yes" "Yes"
##
                                                                                                                                                                                                                                                                          "Yes" 
                                                                                                          [8017]
##
##
                                                                                                          [8029] "Yes" "Yes"
                                                                                                          [8041] "Yes" "Yes"
##
                                                                                                          [8053] "Yes" "Yes"
##
                                                                                                                                                                                                                                                                          "Yes" 
##
                                                                                                          [8065]
                                                                                                          [8077] "Yes" "Yes"
##
                                                                                                          [8089] "Yes" "Yes"
                                                                                                          [8101] "Yes" "Yes"
##
                                                                                                                                                                                                                                                                          "Yes" 
##
                                                                                                          [8113]
                                                                                                          [8125] "Yes" "Yes"
##
                                                                                                          [8137] "Yes" "Yes"
##
                                                                                                          [8149] "Yes" "Yes"
##
```

```
[8161] "Yes" "Yes"
##
                                                                                          [8173] "Yes" "Yes"
                                                                                          [8185] "Yes" "Yes"
##
                                                                                          [8197] "Yes" "Yes"
##
                                                                                          [8209] "Yes" "Yes"
##
##
                                                                                          [8221] "Yes" "Yes"
                                                                                          [8233] "Yes" "Yes"
##
                                                                                          [8245] "Yes" "Yes"
##
                                                                                          [8257] "Yes" "Yes"
##
                                                                                          [8269] "Yes" "Yes"
##
                                                                                          [8281] "Yes" "Yes"
##
                                                                                                                                                                                                                                   "Yes" 
##
                                                                                          [8293]
                                                                                                                                                                                                                                   "Yes" 
##
                                                                                          [8305]
                                                                                          [8317] "Yes" "Yes"
##
                                                                                          [8329] "Yes" "Yes"
                                                                                          [8341] "Yes" "Yes"
##
                                                                                                                                                                                                                                   "Yes" 
##
                                                                                          [8353]
                                                                                          [8365] "Yes" "Yes"
##
                                                                                          [8377] "Yes" "Yes"
##
                                                                                          [8389] "Yes" "Yes"
##
                                                                                          [8401] "Yes" "Yes"
##
                                                                                          [8413] "Yes" "Yes"
##
                                                                                          [8425] "Yes" "Yes"
##
                                                                                          [8437] "Yes" "Yes"
##
                                                                                          [8449] "Yes" "Yes"
##
                                                                                          [8461] "Yes" "Yes"
                                                                                                                                                                                                                                      "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" 
##
                                                                                          [8473]
                                                                                                                                                                                                                                      "Yes" 
##
                                                                                          [8485]
                                                                                          [8497] "Yes" "Yes"
##
                                                                                          [8509] "Yes" "Yes"
                                                                                          [8521] "Yes" "Yes"
##
                                                                                                                                                                                                                                   "Yes" 
##
                                                                                          [8533]
##
                                                                                          [8545] "Yes" "Yes"
                                                                                                                                                                                                                                      "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" 
##
                                                                                          [8557]
                                                                                                                                                                                                                                      "Yes" 
##
                                                                                          [8569]
                                                                                          [8581] "Yes" "Yes"
##
                                                                                          [8593] "Yes" "Yes"
##
##
                                                                                          [8605] "Yes" "Yes"
                                                                                          [8617] "Yes" "Yes"
##
                                                                                          [8629] "Yes" "Yes"
##
                                                                                          [8641] "Yes" "Yes"
##
                                                                                          [8653] "Yes" "Yes"
##
                                                                                          [8665] "Yes" "Yes"
##
##
                                                                                          [8677] "Yes" "Yes"
                                                                                          [8689] "Yes" "Yes"
##
                                                                                          [8701] "Yes" "Yes"
##
                                                                                          [8713] "Yes" "Yes"
##
                                                                                          [8725] "Yes" "Yes"
##
                                                                                          [8737] "Yes" "Yes"
                                                                                          [8749] "Yes" "Yes"
##
                                                                                                                                                                                                                                   "Yes" 
##
                                                                                          [8761]
                                                                                          [8773] "Yes" "Yes"
##
                                                                                          [8785] "Yes" "Yes"
##
                                                                                          [8797] "Yes" "Yes"
##
```

```
[8809] "Yes" "Yes"
##
                                                                                             [8821] "Yes" "Yes"
                                                                                             [8833] "Yes" "Yes"
##
                                                                                             [8845] "Yes" "Yes"
##
                                                                                             [8857] "Yes" "Yes"
##
##
                                                                                             [8869] "Yes" "Yes"
                                                                                             [8881] "Yes" "Yes"
##
                                                                                             [8893] "Yes" "Yes"
##
                                                                                             [8905] "Yes" "Yes"
##
                                                                                             [8917] "Yes" "Yes"
##
                                                                                             [8929] "Yes" "Yes"
##
                                                                                                                                                                                                                                           "Yes" 
##
                                                                                             [8941]
                                                                                                                                                                                                                                        "Yes" 
##
                                                                                             [8965] "Yes" "Yes"
##
                                                                                             [8977] "Yes" "Yes"
                                                                                             [8989] "Yes" "Yes"
##
                                                                                                                                                                                                                                  "Yes" 
##
                                                                                             [9001]
                                                                                             [9013] "Yes" "Yes"
##
                                                                                             [9025] "Yes" "Yes"
                                                                                             [9037] "Yes" "Yes"
##
                                                                                             [9049] "Yes" "Yes"
##
                                                                                             [9061] "Yes" "Yes"
##
                                                                                             [9073] "Yes" "Yes"
##
                                                                                             [9085] "Yes" "Yes"
##
                                                                                             [9097] "Yes" "Yes"
##
                                                                                             [9109] "Yes" "Yes"
                                                                                                                                                                                                                                           "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" 
##
                                                                                             [0121]
                                                                                             [9133] "Yes" "Yes"
##
                                                                                             [9145] "Yes" "Yes"
##
                                                                                             [9157] "Yes" "Yes"
                                                                                             [9169] "Yes" "Yes"
##
                                                                                                                                                                                                                                        "Yes" 
##
                                                                                             [9181]
##
                                                                                             [9193] "Yes" "Yes"
                                                                                             [9205] "Yes" "Yes"
##
                                                                                                                                                                                                                                           "Yes" 
##
                                                                                             [9217]
                                                                                             [9229] "Yes" "Yes"
##
                                                                                             [9241] "Yes" "Yes"
##
##
                                                                                             [9253] "Yes" "Yes"
                                                                                             [9265] "Yes" "Yes"
##
                                                                                             [9277] "Yes" "Yes"
##
                                                                                             [9289] "Yes" "Yes"
##
                                                                                             [9301] "Yes" "Yes"
##
                                                                                             [9313] "Yes" "Yes"
##
##
                                                                                             [9325] "Yes" "Yes"
                                                                                             [9337] "Yes" "Yes"
##
                                                                                             [9349] "Yes" "Yes"
##
                                                                                                                                                                                                                                           "Yes" 
##
                                                                                             [9361]
                                                                                             [9373] "Yes" "Yes"
##
                                                                                             [9385] "Yes" "Yes"
                                                                                                                                                                                                                                           "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" "Yes" 
                                                                                             [9397]
##
                                                                                                                                                                                                                                     "Yes" 
##
                                                                                             [9409]
                                                                                             [9421] "Yes" "Yes"
##
                                                                                             [9433] "Yes" "Yes"
##
                                                                                         [9445] "Yes" "Yes"
##
```

```
[9457] "Yes" "Yes"
                                                                                              [9469] "Yes" "Yes"
                                                                                              [9481] "Yes" "Yes"
                                                                                              [9493] "Yes" "Yes"
                                                                                          [9505] "Yes" "Yes"
##
                                                                                              [9517] "Yes" "Yes"
##
                                                                                              [9529] "Yes" "Yes"
                                                                                              [9541] "Yes" "Yes"
##
                                                                                              [9553] "Yes" "Yes"
                                                                                              [9565] "Yes" "Yes"
##
                                                                                              [9577] "Yes" "Yes"
                                                                                              [9589] "Yes" "Yes"
##
                                                                                              [9601] "Yes" "Yes"
                                                                                              [9613] "Yes" "Yes"
##
                                                                                              [9625] "Yes" "Yes"
                                                                                              [9637] "Yes" "Yes"
##
                                                                                              [9649] "Yes" "Yes"
##
                                                                                              [9661] "Yes" "Yes"
##
                                                                                              [9673] "Yes" "Yes"
                                                                                              [9685] "Yes" "Yes"
##
                                                                                              [9697] "Yes" "Yes"
##
                                                                                              [9709] "Yes" "Yes"
##
                                                                                              [9721] "Yes" "Yes"
##
                                                                                              [9733] "Yes" "Yes"
                                                                                              [9745] "Yes" "Yes"
##
                                                                                              [9757] "Yes" "Yes"
                                                                                              [9769] "Yes" "Yes"
##
                                                                                              [9781] "Yes" "Yes"
                                                                                              [9793] "Yes" "Yes"
##
                                                                                              [9805] "Yes" "Yes"
                                                                                              [9817] "Yes" "Yes"
##
                                                                                              [9829] "Yes" "Yes"
##
                                                                                              [9841] "Yes" "Yes"
                                                                                              [9853] "Yes" "Yes"
##
                                                                                              [9865] "Yes" "Yes"
##
                                                                                              [9877] "Yes" "Yes"
                                                                                              [9889] "Yes" "Yes"
##
##
                                                                                              [9901] "Yes" "Yes"
                                                                                          [9913] "Yes" "Yes"
##
##
                                                                                              [9925] "Yes" "Yes"
                                                                                              [9937] "Yes" "Yes"
                                                                                          [9949] "Yes" "Yes"
                                                                                          [9961] "Yes" "Yes"
                                                                                              [9973] "Yes" "Yes"
                                                                                              [9985] "Yes" "Yes"
                                                                                          [9997] "Yes" "Yes" "Yes" "Yes"
```

What is your conclusion?

Answer: approx 94% does theinterval contain the true value of 'mu'

5. Set  $\mu_1 = 0$ ,  $\sigma_1 = 3$ ,  $\mu_2 = 1$ , and  $\sigma_2 = 2$ . Generate one sample X of  $n_1 = 20$  random numbers from  $\mathcal{N}(\mu_1, \sigma_1^2)$  and another sample Y of  $n_2 = 25$  random numbers from  $\mathcal{N}(\mu_2, \sigma_2^2)$ . Perform a two-sample t-test for difference of means.

```
X = rnorm(n=20, mean=0, sd=3)
Y = rnorm(n=25, mean=1, sd=2)
my.test = t.test(X,Y)
my.test
##
   Welch Two Sample t-test
##
##
## data: X and Y
## t = -1.5655, df = 37.518, p-value = 0.1259
## alternative hypothesis: true difference in means is not equal to 0
## 95 percent confidence interval:
## -2.4257530 0.3105955
## sample estimates:
## mean of x mean of y
## -0.5170883 0.5404905
my.ans = ifelse(my.test$p.value < 0.05, "Yes", "No")</pre>
```

Does the test reject the null hypothesis  $H_0: \mu_1 = \mu_2$  at the level of significance  $\alpha = 0.05$ ?

Answer: No

[49] "Yes" "No"

##

6. Repeat the computation in Question 5 10,000 times. Store in a logical vector of length 10,000 whether the null hypothesis is rejected at the level  $\alpha = 0.05$  or not.

```
m=1e4
result= logical(m)
for(i in 1:m){
X=rnorm(n=20,mean=0,sd=3)
Y=rnorm(n=25,mean=1,sd=2)
my.test=t.test(X,Y)
my.test
result[i]=ifelse(my.test$p.value < 0.05,"Yes","No")</pre>
}
table(result)
## result
    No Yes
## 7671 2329
result
##
       [1] "No"
                 "No"
                       "No"
                              "No" "No"
                                          "No"
                                                "No"
                                                      "No"
                                                            "No"
                                                                   "No"
                                                                         "Yes" "Yes"
##
      [13] "No"
                 "No"
                       "No"
                              "No" "No"
                                          "No"
                                                "No"
                                                       "No"
                                                             "No"
                                                                   "Yes" "No" "Yes"
##
      [25] "No"
                 "Yes" "No"
                              "No"
                                    "No"
                                          "No"
                                                "No"
                                                       "No"
                                                             "No"
                                                                   "No"
                                                                         "No"
                                                                               "Yes"
                       "Yes" "Yes" "No" "No"
                                                "No"
                                                       "No"
                                                             "Yes" "No"
                                                                         "No" "No"
      [37] "Yes" "No"
##
```

"No" "Yes" "No" "Yes" "Yes"

"No" "Yes" "Yes" "No" "No"

```
[61] "No"
                    "No"
                           "Yes" "No"
                                          "No"
                                                 "No"
                                                        "No"
                                                               "Yes" "No"
                                                                              "Yes" "Yes" "Yes"
##
##
       [73]
             "No"
                    "No"
                           "No"
                                   "Yes"
                                          "Yes"
                                                 "Yes"
                                                        "No"
                                                               "Yes"
                                                                      "Yes"
                                                                              "No"
                                                                                     "No"
                                                                                            "Yes"
                                   "No"
                                                               "Yes"
                                                                              "No"
                                                                                     "No"
##
       Г851
            "Yes"
                    "No"
                           "No"
                                          "No"
                                                 "No"
                                                        "No"
                                                                      "No"
                                                                                            "No"
       Г971
             "No"
                    "Yes"
                           "No"
                                   "No"
                                          "No"
                                                 "No"
                                                        "No"
                                                               "No"
                                                                       "Yes"
                                                                              "No"
                                                                                     "No"
##
                                                                                            "No"
             "No"
                                                               "No"
##
      Γ1097
                    "No"
                           "Yes"
                                  "No"
                                          "Yes"
                                                 "No"
                                                        "No"
                                                                       "No"
                                                                              "No"
                                                                                     "No"
                                                                                            "No"
##
      [121]
             "No"
                    "No"
                           "No"
                                   "No"
                                          "No"
                                                 "No"
                                                        "No"
                                                               "No"
                                                                       "No"
                                                                              "No"
                                                                                     "No"
                                                                                            "No"
            "Yes"
                    "No"
                           "No"
                                   "No"
                                          "No"
                                                 "Yes"
                                                        "No"
                                                               "No"
                                                                       "No"
                                                                              "No"
                                                                                     "No"
                                                                                            "Yes"
##
      Γ1337
            "Yes"
                    "No"
      Γ145]
                           "No"
                                   "No"
                                          "No"
                                                 "No"
                                                        "No"
                                                               "Yes"
                                                                      "Yes"
                                                                              "No"
                                                                                     "Yes" "No"
##
             "No"
                           "No"
                                   "No"
##
      Γ157]
                    "No"
                                          "No"
                                                 "No"
                                                        "Yes"
                                                               "Yes"
                                                                       "No"
                                                                              "No"
                                                                                     "Yes"
                                                                                            "No"
                           "Yes"
                                          "No"
                                                                       "Yes"
##
             "No"
                    "No"
                                  "No"
                                                 "Yes"
                                                        "No"
                                                               "No"
                                                                              "No"
                                                                                     "Yes" "Yes"
      [169]
##
      [181]
             "Yes"
                    "Yes"
                           "No"
                                   "No"
                                          "Yes"
                                                 "Yes"
                                                        "Yes"
                                                               "Yes"
                                                                       "No"
                                                                              "No"
                                                                                     "No"
                                                                                            "Yes"
             "Yes"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "No"
                                                        "Yes"
                                                               "No"
                                                                       "No"
                                                                              "Yes"
                                                                                     "No"
                                                                                            "Yes"
##
      [193]
             "No"
                    "No"
                           "No"
                                   "No"
                                          "Yes"
                                                 "No"
                                                        "No"
                                                               "No"
                                                                       "No"
                                                                              "No"
                                                                                     "Yes" "No"
##
      [205]
                           "No"
                                          "No"
                                                        "No"
                                                               "No"
                    "No"
                                   "No"
                                                 "No"
                                                                              "Yes"
                                                                                     "No"
                                                                                            "Yes"
##
      [217]
             "No"
                                                                       "No"
##
      [229]
             "No"
                    "Yes"
                           "No"
                                   "No"
                                          "No"
                                                 "Yes"
                                                        "No"
                                                               "No"
                                                                       "No"
                                                                              "No"
                                                                                     "No"
                                                                                            "Yes"
             "Yes"
                    "No"
                                                        "No"
##
      [241]
                            "Yes"
                                  "No"
                                          "No"
                                                 "Yes"
                                                               "No"
                                                                       "No"
                                                                              "Yes"
                                                                                     "Yes" "Yes"
##
      [253]
             "No"
                    "No"
                           "No"
                                   "Yes"
                                          "No"
                                                 "No"
                                                        "No"
                                                               "No"
                                                                       "No"
                                                                              "No"
                                                                                     "No"
                                                                                            "No"
                           "No"
                                   "No"
                                                        "No"
                                                               "Yes"
                                                                      "Yes"
                                                                              "No"
                                                                                            "No"
##
      [265]
             "No"
                    "No"
                                          "No"
                                                 "No"
                                                                                     "No"
##
      [277]
             "No"
                    "No"
                           "No"
                                   "No"
                                          "No"
                                                 "No"
                                                        "Yes"
                                                               "No"
                                                                       "Yes"
                                                                              "No"
                                                                                     "No"
                                                                                            "No"
                                                               "Yes"
                                                        "Yes"
                                                                                     "No"
             "No"
                    "No"
                           "No"
                                   "No"
                                          "Yes"
                                                 "No"
                                                                       "No"
                                                                              "No"
##
      [289]
                                                                                            "No"
                                                        "Yes"
##
      [301]
             "No"
                    "Yes"
                           "No"
                                   "Yes"
                                         "Yes"
                                                 "Yes"
                                                               "No"
                                                                       "Yes"
                                                                              "No"
                                                                                     "Yes"
                                                                                            "No"
##
      [313]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "Yes"
                                                 "No"
                                                        "No"
                                                               "No"
                                                                       "No"
                                                                              "No"
                                                                                     "No"
                                                                                            "No"
             "No"
                    "No"
                           "Yes"
                                  "No"
                                                 "No"
                                                        "No"
                                                                "No"
                                                                       "No"
                                                                              "Yes"
                                                                                     "No"
                                                                                            "Yes"
##
      [325]
                                          "No"
      [337]
             "No"
                    "No"
                           "No"
                                   "No"
                                          "No"
                                                 "Yes"
                                                        "No"
                                                               "No"
                                                                       "No"
                                                                              "Yes"
                                                                                     "Yes"
                                                                                            "No"
##
            "No"
                                  "No"
                                                                              "No"
##
                    "No"
                           "Yes"
                                          "No"
                                                 "No"
                                                        "No"
                                                               "Yes"
                                                                      "No"
                                                                                     "No"
                                                                                            "No"
      [349]
            "No"
##
      [361]
                    "No"
                           "No"
                                   "No"
                                          "No"
                                                 "No"
                                                        "No"
                                                               "No"
                                                                       "No"
                                                                              "No"
                                                                                     "Yes"
                                                                                            "No"
             "No"
                                                        "No"
##
      [373]
                    "No"
                            "No"
                                   "No"
                                          "Yes"
                                                 "No"
                                                               "No"
                                                                       "No"
                                                                              "No"
                                                                                     "No"
                                                                                            "No"
             "Yes"
                    "No"
                           "Yes"
                                  "No"
                                          "No"
                                                 "No"
                                                        "No"
                                                               "Yes"
                                                                      "No"
                                                                              "Yes"
                                                                                     "No"
                                                                                            "No"
##
      [385]
                                                        "No"
                                                               "Yes"
             "No"
                    "No"
                           "No"
                                   "No"
                                          "No"
                                                 "No"
                                                                      "No"
                                                                              "No"
                                                                                     "No"
                                                                                            "Yes"
##
      [397]
                           "No"
                                  "Yes"
                                          "No"
                                                 "No"
                                                        "No"
                                                               "Yes"
                                                                       "No"
                                                                              "No"
                                                                                     "No"
                                                                                            "No"
##
      [409]
             "No"
                    "No"
             "No"
                                                                      "No"
                    "No"
                           "No"
                                   "No"
                                                 "Yes"
                                                        "No"
                                                               "Yes"
                                                                              "No"
                                                                                     "No"
                                                                                            "No"
##
      [421]
                                          "Yes"
##
      [433]
             "No"
                    "No"
                           "No"
                                   "No"
                                          "No"
                                                 "No"
                                                        "No"
                                                               "No"
                                                                       "No"
                                                                              "No"
                                                                                     "No"
                                                                                            "No"
             "No"
                    "Yes"
                           "No"
                                   "No"
                                          "No"
                                                 "No"
                                                        "Yes"
                                                               "No"
                                                                       "No"
                                                                              "Yes"
                                                                                     "No"
                                                                                            "No"
##
      [445]
                                                        "No"
##
      [457]
             "No"
                    "No"
                            "Yes"
                                  "No"
                                          "No"
                                                 "No"
                                                               "No"
                                                                       "No"
                                                                              "No"
                                                                                     "Yes"
                                                                                            "No"
                                                        "No"
             "No"
                    "No"
                           "No"
                                   "No"
                                          "No"
                                                 "Yes"
                                                               "Yes"
                                                                       "No"
                                                                              "Yes"
                                                                                     "No"
                                                                                            "No"
##
      [469]
                                                                              "Yes"
##
      [481]
             "No"
                    "No"
                           "No"
                                   "No"
                                          "No"
                                                 "No"
                                                        "No"
                                                               "No"
                                                                       "No"
                                                                                     "No"
                                                                                            "No"
                                                               "No"
##
      [493]
             "No"
                    "No"
                           "Yes"
                                  "No"
                                          "No"
                                                 "No"
                                                        "Yes"
                                                                       "No"
                                                                              "No"
                                                                                     "Yes" "No"
##
      [505]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "No"
                                                        "Yes"
                                                               "No"
                                                                       "Yes"
                                                                              "No"
                                                                                     "Yes"
                                                                                            "No"
             "Yes"
                    "Yes"
                                                        "No"
                                                               "No"
                                                                                     "No"
                                                                                            "No"
##
      [517]
                           "No"
                                   "No"
                                          "No"
                                                 "No"
                                                                       "No"
                                                                              "No"
            "Yes" "No"
                           "No"
                                   "Yes"
                                          "No"
                                                 "No"
                                                        "Yes"
                                                               "No"
                                                                       "No"
                                                                              "Yes"
                                                                                     "No"
                                                                                            "No"
##
      [529]
      [541] "Yes"
##
                    "No"
                            "No"
                                  "No"
                                          "No"
                                                 "No"
                                                        "No"
                                                               "No"
                                                                       "No"
                                                                              "No"
                                                                                     "Yes"
                                                                                            "No"
            "No"
                    "No"
                           "Yes"
                                  "No"
                                                        "No"
                                                                              "No"
                                                                                     "Yes"
##
      [553]
                                          "No"
                                                 "Yes"
                                                               "Yes"
                                                                       "No"
                                                                                            "No"
      [565]
             "Yes"
                    "No"
                           "Yes"
                                  "No"
                                          "No"
                                                 "No"
                                                        "No"
                                                               "Yes"
                                                                       "No"
                                                                              "No"
                                                                                     "Yes"
                                                                                            "No"
##
##
      [577]
             "No"
                    "No"
                           "No"
                                  "No"
                                          "No"
                                                 "Yes"
                                                        "No"
                                                               "No"
                                                                       "No"
                                                                              "No"
                                                                                     "No"
                                                                                            "No"
      [589]
            "No"
                    "No"
                           "Yes" "No"
                                          "No"
                                                 "No"
                                                        "No"
                                                               "No"
                                                                       "No"
                                                                              "No"
                                                                                     "No"
                                                                                            "No"
##
             "Yes"
                    "No"
                                  "No"
                                                 "No"
                                                        "No"
                                                                      "No"
                                                                                     "No"
                                                                                            "Yes"
      [601]
                            "Yes"
                                          "No"
                                                               "Yes"
                                                                              "Yes"
##
             "No"
                            "No"
                                          "Yes"
                                                 "No"
                                                        "No"
                                                               "No"
                                                                       "Yes"
                                                                              "Yes"
                                                                                     "No"
                                                                                            "No"
##
      [613]
                    "No"
                                   "No"
                                          "No"
                                                        "No"
                                                                      "No"
##
      [625]
             "No"
                    "No"
                           "No"
                                  "No"
                                                 "No"
                                                               "Yes"
                                                                              "Yes"
                                                                                     "No"
                                                                                            "No"
                           "No"
                                                        "No"
##
      [637]
             "No"
                    "Yes"
                                  "No"
                                          "No"
                                                 "No"
                                                               "No"
                                                                       "No"
                                                                              "No"
                                                                                     "No"
                                                                                            "No"
             "No"
                                                 "Yes"
                                                               "Yes"
                                                                                            "No"
      [649]
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                        "No"
                                                                      "No"
                                                                              "Yes"
                                                                                     "No"
##
                                  "No"
                                          "Yes"
                                                 "Yes"
                                                        "No"
                                                               "No"
##
      [661]
             "No"
                    "No"
                           "Yes"
                                                                       "No"
                                                                              "No"
                                                                                     "Yes"
                                                                                            "No"
                                                 "No"
                                                        "Yes"
                                                               "No"
                                                                       "Yes"
                                                                              "No"
                                                                                     "Yes"
                                                                                            "No"
             "No"
                    "No"
                           "No"
                                   "No"
                                          "No"
##
      [673]
                                                 "Yes" "Yes"
##
      [685]
             "No"
                    "No"
                            "Yes"
                                  "No"
                                          "No"
                                                               "No"
                                                                       "No"
                                                                              "No"
                                                                                     "No"
                                                                                            "No"
            "No"
                    "No"
                           "No"
                                   "No"
                                          "Yes" "Yes" "No"
                                                               "No"
                                                                       "Yes" "Yes" "No"
                                                                                            "No"
##
      [697]
```

```
[709] "Yes"
                    "No"
                            "No"
                                   "No"
                                                 "No"
                                                                "No"
                                                                        "No"
                                                                               "No"
                                                                                      "No"
##
                                          "No"
                                                         "Yes"
                                                                                             "No"
      [721]
##
             "No"
                    "No"
                            "Yes"
                                   "No"
                                          "No"
                                                  "No"
                                                         "No"
                                                                "No"
                                                                        "No"
                                                                               "Yes"
                                                                                      "No"
                                                                                              "No"
                                                         "No"
                                                                "Yes"
                                                                        "Yes"
##
      [733]
            "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                  "No"
                                                                               "No"
                                                                                      "No"
                                                                                              "Yes"
      [745]
             "No"
                    "Yes"
                            "No"
                                   "No"
                                          "No"
                                                  "No"
                                                         "No"
                                                                "No"
                                                                        "No"
                                                                               "No"
                                                                                      "No"
                                                                                              "Yes"
##
                    "No"
                                                         "No"
                                                                "No"
                                                                                      "No"
##
      [757]
             "Yes"
                            "No"
                                   "No"
                                          "Yes"
                                                 "No"
                                                                        "No"
                                                                               "No"
                                                                                              "No"
##
      [769]
             "No"
                    "Yes"
                           "No"
                                   "No"
                                          "Yes"
                                                 "Yes"
                                                         "No"
                                                                "No"
                                                                        "No"
                                                                               "Yes"
                                                                                      "Yes"
                                                                                             "No"
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                  "Yes"
                                                         "No"
                                                                "Yes"
                                                                        "No"
                                                                               "Yes"
                                                                                      "No"
                                                                                              "No"
##
      [781]
                           "No"
      [793]
             "No"
                    "Yes"
                                   "No"
                                          "No"
                                                  "No"
                                                         "No"
                                                                "No"
                                                                        "No"
                                                                               "Yes"
                                                                                      "No"
                                                                                              "No"
##
             "Yes"
##
      [805]
                    "Yes"
                            "No"
                                   "No"
                                          "No"
                                                  "No"
                                                         "Yes"
                                                                "No"
                                                                        "No"
                                                                               "No"
                                                                                      "No"
                                                                                              "Yes"
                                   "No"
                                                 "No"
                                                         "No"
                                                                        "No"
                                                                               "No"
                                                                                             "No"
##
             "No"
                    "No"
                            "No"
                                          "No"
                                                                "No"
                                                                                      "No"
      [817]
##
      [829]
             "Yes"
                    "Yes"
                           "Yes"
                                   "Yes"
                                          "No"
                                                  "Yes"
                                                         "Yes"
                                                                "No"
                                                                        "No"
                                                                               "No"
                                                                                      "No"
                                                                                              "Yes"
             "No"
                    "No"
                            "Yes"
                                   "No"
                                          "No"
                                                  "No"
                                                         "Yes"
                                                                "No"
                                                                        "Yes"
                                                                               "No"
                                                                                      "No"
                                                                                             "Yes"
##
      [841]
             "No"
                    "No"
                            "No"
                                   "Yes"
                                          "Yes"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                        "No"
                                                                               "No"
                                                                                      "No"
##
      [853]
                                                                                              "Yes"
                                          "No"
                                                         "No"
                                                                "No"
                                                                        "No"
                                                                                             "No"
             "Yes"
                    "Yes"
                            "No"
                                   "Yes"
                                                  "No"
                                                                               "No"
                                                                                      "Yes"
##
      [865]
##
      [877]
             "No"
                    "No"
                            "Yes"
                                   "No"
                                          "No"
                                                  "Yes"
                                                         "No"
                                                                "Yes"
                                                                        "No"
                                                                               "Yes"
                                                                                      "No"
                                                                                              "Yes"
             "No"
                                                         "No"
                                                                "No"
                                                                        "Yes"
##
      [889]
                    "No"
                            "No"
                                   "No"
                                          "Yes"
                                                 "Yes"
                                                                               "No"
                                                                                      "No"
                                                                                              "Yes"
##
      [901]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "Yes"
                                                 "No"
                                                         "Yes"
                                                                "Yes"
                                                                       "No"
                                                                               "No"
                                                                                      "No"
                                                                                              "No"
                    "No"
                                                         "No"
                                                                "Yes"
                                                                        "Yes"
                                                                               "Yes"
                                                                                      "No"
                                                                                              "No"
##
      [913]
             "No"
                            "No"
                                   "No"
                                          "No"
                                                  "No"
      [925]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                  "No"
                                                         "No"
                                                                "No"
                                                                        "No"
                                                                               "No"
                                                                                      "Yes"
                                                                                             "No"
##
                            "Yes"
                                                         "No"
             "No"
                    "No"
                                   "No"
                                                                "No"
                                                                        "No"
                                                                                      "No"
##
      [937]
                                          "No"
                                                 "No"
                                                                               "Yes"
                                                                                              "Yes"
##
      [949]
             "No"
                    "Yes"
                            "Yes"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                        "No"
                                                                               "No"
                                                                                      "No"
                                                                                             "Yes"
##
      [961]
            "Yes"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                  "No"
                                                         "No"
                                                                "No"
                                                                        "No"
                                                                               "No"
                                                                                      "No"
                                                                                              "Yes"
             "Yes"
                    "No"
                            "Yes"
                                   "Yes"
                                          "No"
                                                  "No"
                                                         "No"
                                                                        "No"
                                                                               "No"
                                                                                      "No"
                                                                                              "No"
##
      [973]
                                                                "No"
      [985]
             "No"
                    "No"
                            "Yes"
                                   "Yes"
                                          "No"
                                                  "Yes"
                                                         "No"
                                                                "No"
                                                                        "No"
                                                                               "No"
                                                                                      "No"
                                                                                              "No"
##
##
                                                         "No"
      [997]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "Yes"
                                                 "Yes"
                                                                "No"
                                                                        "No"
                                                                               "No"
                                                                                      "No"
                                                                                             "No"
             "No"
                                                         "No"
##
     Γ1009
                    "Yes"
                            "No"
                                   "No"
                                          "No"
                                                  "No"
                                                                "No"
                                                                        "No"
                                                                               "No"
                                                                                      "No"
                                                                                              "No"
                                                  "No"
                                                         "No"
                                                                "No"
                                                                        "No"
                                                                                      "No"
##
     [1021]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                                               "No"
                                                                                              "No"
     [1033]
             "No"
                    "No"
                            "No"
                                   "Yes"
                                          "No"
                                                  "No"
                                                         "No"
                                                                "No"
                                                                        "No"
                                                                               "Yes"
                                                                                      "Yes"
                                                                                             "No"
##
                    "Yes"
                            "No"
                                   "Yes"
                                          "Yes"
                                                 "No"
                                                         "No"
                                                                "Yes"
                                                                        "Yes"
                                                                               "No"
             "No"
                                                                                      "No"
                                                                                              "No"
##
     [1045]
                    "Yes"
                            "No"
                                   "Yes"
                                          "No"
                                                  "Yes"
                                                         "No"
                                                                "No"
                                                                        "Yes"
                                                                               "No"
                                                                                      "No"
                                                                                              "No"
##
     [1057]
             "No"
             "No"
                            "Yes"
                                          "No"
                                                         "No"
                                                                        "Yes"
                    "No"
                                   "No"
                                                  "Yes"
                                                                "No"
                                                                               "No"
                                                                                      "No"
                                                                                             "No"
##
     [1069]
                                                         "Yes"
##
     [1081]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "Yes"
                                                 "Yes"
                                                                "No"
                                                                        "No"
                                                                               "No"
                                                                                      "No"
                                                                                              "No"
             "No"
                    "No"
                            "No"
                                   "Yes"
                                          "No"
                                                  "No"
                                                         "No"
                                                                "No"
                                                                        "No"
                                                                               "No"
                                                                                      "Yes"
                                                                                             "No"
##
     [1093]
                                                         "No"
     [1105]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                  "Yes"
                                                                "No"
                                                                        "No"
                                                                               "No"
                                                                                      "No"
                                                                                              "Yes"
##
                                                         "No"
             "No"
                    "No"
                            "No"
                                   "No"
                                          "Yes"
                                                 "No"
                                                                "Yes"
                                                                        "No"
                                                                               "No"
                                                                                      "No"
                                                                                             "No"
##
     [1117]
                                                        "Yes"
                                                                "No"
##
     Γ11297
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                  "Yes"
                                                                        "No"
                                                                               "No"
                                                                                      "Yes"
                                                                                             "No"
                                                                "No"
                                                        "Yes"
##
     Γ1141]
             "No"
                    "Yes"
                            "No"
                                   "No"
                                          "No"
                                                 "Yes"
                                                                        "No"
                                                                               "No"
                                                                                      "No"
                                                                                              "No"
##
     Γ1153]
             "Yes"
                    "No"
                            "No"
                                   "No"
                                          "Yes"
                                                 "Yes"
                                                         "No"
                                                                "No"
                                                                        "No"
                                                                               "No"
                                                                                      "No"
                                                                                              "No"
             "No"
                                                         "Yes"
                                                                "Yes"
                                                                                      "Yes"
##
     [1165]
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                  "Yes"
                                                                        "No"
                                                                               "Yes"
                                                                                             "No"
##
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                        "Yes"
                                                                               "No"
                                                                                             "No"
     [1177]
                                                                                      "No"
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                  "No"
                                                         "No"
                                                                "No"
                                                                        "No"
                                                                               "No"
                                                                                      "No"
                                                                                              "No"
##
     [1189]
                    "No"
                            "No"
                                   "No"
                                                         "No"
                                                                        "No"
                                                                               "No"
     Γ1201]
             "No"
                                          "No"
                                                  "No"
                                                                "No"
                                                                                      "No"
                                                                                              "No"
##
     Γ1213]
             "No"
                    "Yes"
                            "No"
                                   "Yes"
                                          "Yes"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                        "Yes"
                                                                               "Yes"
                                                                                      "No"
                                                                                              "Yes"
##
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                  "Yes"
                                                         "No"
                                                                "No"
                                                                        "No"
                                                                               "Yes"
                                                                                      "No"
                                                                                              "No"
##
     [1225]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                  "Yes"
                                                         "No"
                                                                "No"
                                                                        "No"
                                                                               "No"
                                                                                      "No"
                                                                                              "No"
##
     [1237]
                                                  "No"
                                                         "Yes"
                                                                "No"
                                                                               "No"
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                                        "No"
                                                                                      "No"
                                                                                              "No"
     [1249]
##
             "Yes"
                    "No"
                                   "Yes"
                                          "No"
                                                  "Yes"
                                                         "No"
                                                                "No"
                                                                        "No"
                                                                                      "Yes"
                                                                                             "No"
##
     [1261]
                            "No"
                                                                               "No"
                    "No"
                                   "No"
                                                 "No"
                                                                "Yes"
                                                                        "Yes"
                                                                               "Yes"
                                                                                      "No"
     [1273]
             "Yes"
                            "No"
                                          "No"
                                                         "Yes"
                                                                                             "No"
##
             "Yes"
                            "No"
                                                         "Yes"
                                                                "No"
##
     [1285]
                    "No"
                                   "No"
                                          "No"
                                                  "Yes"
                                                                        "No"
                                                                               "No"
                                                                                      "No"
                                                                                              "Yes"
                                                  "No"
                                                                               "No"
     [1297]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                         "No"
                                                                "No"
                                                                        "Yes"
                                                                                      "No"
                                                                                              "No"
##
                                                         "No"
##
     [1309]
             "No"
                    "No"
                            "Yes"
                                   "No"
                                          "Yes"
                                                 "Yes"
                                                                "No"
                                                                        "No"
                                                                               "No"
                                                                                      "No"
                                                                                              "No"
                                                                               "Yes"
                                                                                      "No"
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                  "No"
                                                         "No"
                                                                "No"
                                                                        "No"
                                                                                              "No"
##
     [1321]
                                                                               "Yes"
                                                                                      "Yes"
##
     「1333]
             "No"
                    "Yes"
                            "No"
                                   "No"
                                          "No"
                                                  "No"
                                                         "No"
                                                                "No"
                                                                        "No"
                                                                                             "Yes"
                                                         "No"
                                                                                      "No"
             "No"
                    "No"
                            "Yes"
                                  "No"
                                          "No"
                                                  "No"
                                                                "Yes"
                                                                       "No"
                                                                               "No"
                                                                                             "No"
##
     [1345]
```

```
[1357] "No"
                            "No"
                                   "No"
                                           "No"
                                                  "No"
                                                                        "Yes"
                                                                               "No"
                                                                                       "Yes" "No"
##
                     "Yes"
                                                         "No"
                                                                 "Yes"
##
     「1369]
             "No"
                     "No"
                            "No"
                                   "No"
                                           "No"
                                                  "No"
                                                         "No"
                                                                 "No"
                                                                        "No"
                                                                                "No"
                                                                                       "No"
                                                                                              "No"
                                                         "No"
                                                                               "Yes"
                                                                 "No"
##
     Г1381]
             "Yes"
                    "No"
                            "No"
                                   "Yes"
                                           "No"
                                                  "No"
                                                                        "No"
                                                                                       "Yes"
                                                                                              "No"
     Г13937
             "Yes"
                     "No"
                            "No"
                                   "No"
                                           "Yes"
                                                  "No"
                                                         "Yes"
                                                                 "No"
                                                                        "No"
                                                                               "No"
                                                                                       "No"
                                                                                              "Yes"
##
             "No"
                                                                                       "No"
##
     [1405]
                     "No"
                            "Yes"
                                   "No"
                                           "No"
                                                  "No"
                                                         "No"
                                                                 "Yes"
                                                                        "Yes"
                                                                               "No"
                                                                                              "No"
     [1417]
             "No"
                     "No"
                            "No"
                                   "No"
                                           "No"
                                                  "No"
                                                         "No"
                                                                 "No"
                                                                        "No"
                                                                                "Yes"
                                                                                       "No"
                                                                                              "No"
##
     [1429]
             "No"
                     "Yes"
                            "No"
                                   "No"
                                           "No"
                                                  "No"
                                                         "Yes"
                                                                 "No"
                                                                        "No"
                                                                               "No"
                                                                                       "No"
                                                                                              "Yes"
##
                                                         "No"
     Γ1441]
             "No"
                     "No"
                            "No"
                                   "No"
                                           "No"
                                                  "Yes"
                                                                 "No"
                                                                        "No"
                                                                                "No"
                                                                                       "No"
                                                                                              "No"
##
             "Yes"
                                                                                       "Yes"
##
     「1453]
                     "No"
                            "No"
                                   "No"
                                           "No"
                                                  "Yes"
                                                         "No"
                                                                 "No"
                                                                        "No"
                                                                               "No"
                                                                                              "No"
                                   "No"
                                                         "Yes"
                                                                               "No"
             "No"
                     "No"
                            "No"
                                           "No"
                                                  "No"
                                                                 "No"
                                                                        "Yes"
                                                                                       "No"
                                                                                              "Yes"
##
     [1465]
##
     [1477]
             "No"
                     "No"
                            "No"
                                   "No"
                                           "No"
                                                  "No"
                                                         "Yes"
                                                                 "No"
                                                                        "No"
                                                                                "No"
                                                                                       "Yes"
                                                                                              "No"
             "Yes"
                     "No"
                            "Yes"
                                   "No"
                                           "No"
                                                  "No"
                                                         "No"
                                                                 "No"
                                                                        "No"
                                                                               "Yes"
                                                                                       "No"
                                                                                              "No"
     [1489]
##
             "No"
                     "Yes"
                            "No"
                                   "No"
                                           "No"
                                                  "No"
                                                         "No"
                                                                 "No"
                                                                        "No"
                                                                               "No"
                                                                                       "No"
                                                                                              "Yes"
##
     [1501]
                                                  "No"
                                                         "No"
                                                                 "No"
                     "No"
                            "No"
                                   "No"
                                           "Yes"
                                                                               "No"
                                                                                       "Yes"
                                                                                              "Yes"
     [1513]
             "No"
                                                                        "No"
##
##
     [1525]
             "Yes"
                     "No"
                            "No"
                                   "No"
                                           "No"
                                                  "Yes"
                                                         "Yes"
                                                                 "No"
                                                                        "No"
                                                                               "No"
                                                                                       "No"
                                                                                              "No"
             "Yes"
                     "No"
                            "Yes"
                                                  "No"
                                                         "No"
##
     [1537]
                                   "No"
                                           "No"
                                                                 "No"
                                                                        "No"
                                                                               "Yes"
                                                                                       "No"
                                                                                              "No"
     [1549]
             "No"
                     "Yes"
                            "No"
                                   "No"
                                           "Yes"
                                                  "No"
                                                         "Yes"
                                                                 "No"
                                                                        "No"
                                                                                "No"
                                                                                       "No"
                                                                                              "Yes"
##
                                                         "No"
                     "No"
                            "Yes"
                                   "Yes"
                                           "No"
                                                  "Yes"
                                                                 "No"
                                                                                              "No"
##
     [1561]
             "No"
                                                                        "No"
                                                                               "No"
                                                                                       "No"
     Γ15737
             "No"
                     "No"
                            "No"
                                   "Yes"
                                           "No"
                                                  "No"
                                                         "No"
                                                                 "No"
                                                                        "No"
                                                                                "No"
                                                                                       "No"
                                                                                              "No"
##
                                                                                       "No"
             "No"
                     "No"
                            "No"
                                   "No"
                                           "No"
                                                  "Yes"
                                                         "No"
                                                                 "No"
##
     Γ1585]
                                                                        "No"
                                                                               "Yes"
                                                                                              "No"
     [1597]
##
             "No"
                     "No"
                            "Yes"
                                   "No"
                                           "Yes"
                                                  "No"
                                                         "Yes"
                                                                 "No"
                                                                        "No"
                                                                                "Yes"
                                                                                       "No"
                                                                                              "No"
     Γ16097
             "No"
                     "No"
                            "No"
                                   "No"
                                           "No"
                                                  "No"
                                                         "No"
                                                                 "Yes"
                                                                        "No"
                                                                               "No"
                                                                                       "No"
                                                                                              "No"
##
             "No"
                     "Yes"
                            "No"
                                   "Yes"
                                           "No"
                                                  "No"
                                                         "No"
                                                                 "Yes"
                                                                        "No"
                                                                                "No"
                                                                                              "No"
     [1621]
                                                                                       "No"
##
     Γ16337
             "No"
                     "No"
                            "No"
                                   "No"
                                           "No"
                                                  "No"
                                                         "No"
                                                                 "No"
                                                                        "No"
                                                                                "No"
                                                                                       "No"
                                                                                              "No"
##
                                                         "No"
     [1645]
             "Yes"
                     "No"
                            "Yes"
                                   "No"
                                           "No"
                                                  "Yes"
                                                                 "Yes"
                                                                        "No"
                                                                               "No"
                                                                                       "No"
                                                                                              "Yes"
##
             "No"
                                                         "No"
##
     Γ1657]
                     "No"
                            "No"
                                   "No"
                                           "Yes"
                                                  "No"
                                                                 "Yes"
                                                                        "No"
                                                                                "No"
                                                                                       "No"
                                                                                              "No"
                                   "No"
                                                         "No"
                                                                 "Yes"
                                                                        "No"
                                                                                       "No"
##
     [1669]
             "No"
                     "Yes"
                            "No"
                                           "No"
                                                  "No"
                                                                                "Yes"
                                                                                              "No"
     [1681]
             "No"
                     "No"
                            "No"
                                   "Yes"
                                           "Yes"
                                                  "No"
                                                         "No"
                                                                 "No"
                                                                        "No"
                                                                                "No"
                                                                                       "No"
                                                                                              "No"
##
                                                  "No"
                                                         "Yes"
                                                                 "No"
                                                                                       "No"
             "No"
                     "No"
                            "No"
                                   "No"
                                           "Yes"
                                                                        "No"
                                                                               "Yes"
                                                                                              "No"
##
     [1693]
                     "Yes"
                            "No"
                                           "No"
                                                         "No"
                                                                 "No"
                                                                        "No"
                                                                               "Yes"
                                                                                       "Yes"
                                                                                              "No"
##
     [1705]
             "No"
                                   "No"
                                                  "No"
                    "No"
                                           "No"
                                                  "No"
                                                                                              "Yes"
             "Yes"
                                   "No"
                                                         "No"
                                                                 "No"
                                                                        "No"
                                                                               "No"
                                                                                       "Yes"
##
     [1717]
                            "No"
##
     [1729]
             "No"
                     "No"
                            "No"
                                   "No"
                                           "No"
                                                  "No"
                                                         "Yes"
                                                                 "No"
                                                                        "No"
                                                                               "No"
                                                                                       "No"
                                                                                              "Yes"
             "Yes"
                    "Yes"
                            "No"
                                   "No"
                                           "No"
                                                  "No"
                                                         "No"
                                                                 "No"
                                                                        "No"
                                                                               "No"
                                                                                       "No"
                                                                                              "No"
##
     [1741]
                                                         "Yes"
     [1753]
             "No"
                     "No"
                            "No"
                                   "No"
                                           "No"
                                                  "Yes"
                                                                 "No"
                                                                        "No"
                                                                                "No"
                                                                                       "No"
                                                                                              "No"
##
                    "No"
                                                         "No"
             "Yes"
                            "No"
                                   "No"
                                           "No"
                                                  "No"
                                                                 "No"
                                                                        "No"
                                                                                       "No"
                                                                                              "No"
##
     [1765]
                                                                               "No"
                    "Yes"
                            "Yes"
##
     [1777]
             "Yes"
                                   "No"
                                           "Yes"
                                                  "No"
                                                         "No"
                                                                 "Yes"
                                                                        "No"
                                                                                "No"
                                                                                       "No"
                                                                                              "No"
                                                         "No"
##
     Г17897
             "No"
                     "Yes"
                            "No"
                                   "No"
                                           "No"
                                                  "Yes"
                                                                 "No"
                                                                        "No"
                                                                               "No"
                                                                                       "No"
                                                                                              "Yes"
##
     Γ1801
             "Yes"
                     "No"
                            "No"
                                   "No"
                                           "No"
                                                  "Yes"
                                                         "No"
                                                                 "No"
                                                                        "Yes"
                                                                                "No"
                                                                                       "No"
                                                                                              "No"
             "No"
                            "No"
                                                         "No"
                                                                        "No"
##
     Γ1813]
                     "Yes"
                                   "Yes"
                                           "No"
                                                  "Yes"
                                                                 "Yes"
                                                                                "Yes"
                                                                                       "No"
                                                                                              "No"
##
             "No"
                     "No"
                            "No"
                                   "No"
                                                  "No"
                                                         "No"
                                                                 "No"
                                                                        "No"
                                                                                "No"
                                                                                              "No"
     [1825]
                                           "No"
                                                                                       "No"
             "No"
                     "Yes"
                            "No"
                                   "No"
                                           "No"
                                                  "No"
                                                         "No"
                                                                 "Yes"
                                                                        "No"
                                                                                "No"
                                                                                       "No"
                                                                                              "No"
##
     [1837]
                                                         "Yes"
                                                                 "Yes"
                     "No"
                                   "No"
     [1849]
             "No"
                            "No"
                                           "No"
                                                  "Yes"
                                                                        "No"
                                                                                "No"
                                                                                       "No"
                                                                                              "Yes"
##
     Γ1861]
             "No"
                     "No"
                            "No"
                                   "No"
                                           "No"
                                                  "No"
                                                         "No"
                                                                 "No"
                                                                        "No"
                                                                                "No"
                                                                                       "No"
                                                                                              "No"
##
             "No"
                     "No"
                            "No"
                                   "No"
                                           "No"
                                                  "No"
                                                         "No"
                                                                 "No"
                                                                        "No"
                                                                                "No"
                                                                                       "Yes"
                                                                                              "No"
##
     [1873]
             "Yes"
                     "No"
                            "No"
                                   "No"
                                           "Yes"
                                                  "No"
                                                         "No"
                                                                 "No"
                                                                        "No"
                                                                                "No"
                                                                                       "Yes"
                                                                                              "No"
##
     [1885]
             "Yes"
                     "No"
                                                         "No"
                                                                        "Yes"
     [1897]
                            "No"
                                   "Yes"
                                           "No"
                                                  "Yes"
                                                                 "Yes"
                                                                                "No"
                                                                                       "No"
                                                                                              "No"
##
             "Yes"
                     "No"
                                   "No"
                                                  "Yes"
                                                         "No"
                                                                 "Yes"
                                                                        "No"
                                                                                       "No"
                                                                                              "No"
##
     [1909]
                            "No"
                                           "No"
                                                                                "No"
                                                  "No"
                                                                               "Yes"
     [1921]
             "No"
                     "No"
                            "No"
                                   "No"
                                           "Yes"
                                                         "No"
                                                                 "Yes"
                                                                        "Yes"
                                                                                       "No"
                                                                                              "No"
##
                            "No"
                                                         "No"
                                                                        "No"
##
     [1933]
             "No"
                     "No"
                                   "No"
                                           "No"
                                                  "No"
                                                                 "No"
                                                                                "No"
                                                                                       "No"
                                                                                              "No"
             "No"
                            "Yes"
                                   "No"
                                                                 "Yes"
                                                                               "No"
     [1945]
                     "No"
                                           "No"
                                                  "Yes"
                                                         "No"
                                                                        "No"
                                                                                       "No"
                                                                                              "Yes"
##
                            "No"
##
     [1957]
             "No"
                     "Yes"
                                   "No"
                                           "No"
                                                  "No"
                                                         "No"
                                                                 "Yes"
                                                                        "No"
                                                                               "No"
                                                                                       "No"
                                                                                              "No"
                                   "Yes"
                                                         "No"
                                                                                       "No"
                                                                                              "No"
             "No"
                     "No"
                            "No"
                                          "No"
                                                  "No"
                                                                 "No"
                                                                        "No"
                                                                               "No"
##
     [1969]
##
     Γ1981
             "No"
                     "No"
                            "No"
                                   "No"
                                           "Yes"
                                                  "No"
                                                         "No"
                                                                 "No"
                                                                        "No"
                                                                                "No"
                                                                                       "No"
                                                                                              "No"
                                                         "No"
             "Yes"
                    "No"
                            "No"
                                   "No"
                                           "No"
                                                  "Yes"
                                                                 "No"
                                                                        "No"
                                                                               "No"
                                                                                       "Yes" "No"
##
     Г1993Т
```

```
[2005] "Yes" "No"
                            "No"
                                   "No"
                                                        "No"
                                                                "No"
                                                                        "No"
                                                                               "No"
                                                                                      "No"
##
                                          "No"
                                                  "Yes"
                                                                                             "Yes"
##
     [2017]
             "No"
                    "No"
                            "Yes"
                                   "No"
                                          "No"
                                                  "No"
                                                         "Yes"
                                                                "No"
                                                                        "No"
                                                                               "No"
                                                                                      "Yes"
                                                                                             "No"
     [2029] "Yes"
                    "No"
                                                         "Yes"
                                                                "No"
                                                                                              "No"
##
                            "No"
                                   "No"
                                          "No"
                                                  "No"
                                                                        "No"
                                                                               "No"
                                                                                      "No"
             "No"
                    "Yes"
                            "No"
                                   "No"
                                          "No"
                                                  "No"
                                                         "No"
                                                                "Yes"
                                                                        "Yes"
                                                                               "No"
                                                                                      "Yes"
                                                                                             "No"
     [2041]
##
             "Yes"
                                                                "No"
##
     [2053]
                    "Yes"
                            "No"
                                   "No"
                                          "No"
                                                  "No"
                                                         "No"
                                                                        "No"
                                                                               "No"
                                                                                      "No"
                                                                                              "No"
     [2065]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "Yes"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                        "No"
                                                                               "No"
                                                                                      "No"
                                                                                              "No"
##
     [2077]
             "No"
                    "No"
                            "No"
                                   "Yes"
                                          "No"
                                                  "No"
                                                         "No"
                                                                "No"
                                                                        "Yes"
                                                                               "Yes"
                                                                                      "No"
                                                                                              "No"
##
                                   "No"
     [2089]
             "No"
                    "No"
                            "Yes"
                                          "No"
                                                  "No"
                                                         "No"
                                                                "No"
                                                                        "No"
                                                                               "No"
                                                                                      "No"
                                                                                              "No"
##
             "Yes"
                            "Yes"
##
     [2101]
                    "No"
                                   "Yes"
                                          "Yes"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                        "No"
                                                                               "Yes"
                                                                                      "No"
                                                                                              "Yes"
                                                         "Yes"
                                                                "Yes"
     [2113]
             "No"
                    "Yes"
                            "No"
                                   "No"
                                          "No"
                                                  "No"
                                                                        "No"
                                                                               "No"
                                                                                      "Yes"
                                                                                             "Yes"
##
##
     [2125]
             "No"
                    "No"
                            "No"
                                   "Yes"
                                          "No"
                                                  "No"
                                                         "No"
                                                                "Yes"
                                                                        "Yes"
                                                                               "No"
                                                                                      "No"
                                                                                              "No"
                                                                "No"
             "No"
                    "No"
                            "Yes"
                                   "Yes"
                                          "No"
                                                  "Yes"
                                                         "Yes"
                                                                        "No"
                                                                               "No"
                                                                                      "No"
                                                                                              "No"
     [2137]
##
             "Yes"
                    "Yes"
                           "No"
                                   "No"
                                          "No"
                                                  "No"
                                                         "No"
                                                                "No"
                                                                        "No"
##
     [2149]
                                                                               "No"
                                                                                      "No"
                                                                                             "No"
                           "No"
                                          "No"
                                                                "No"
                                                                        "Yes"
                                                                                             "No"
                    "Yes"
                                   "No"
                                                  "No"
                                                         "Yes"
                                                                               "No"
     [2161]
             "No"
                                                                                      "No"
##
                                                         "Yes"
                                                                                             "No"
     [2173]
             "No"
                    "Yes"
                            "No"
                                   "No"
                                          "No"
                                                  "No"
                                                                "No"
                                                                        "No"
                                                                               "No"
                                                                                      "Yes"
##
             "No"
                                                         "No"
                                                                                             "No"
##
     [2185]
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                  "Yes"
                                                                "No"
                                                                        "No"
                                                                               "Yes"
                                                                                      "No"
     [2197]
             "No"
                    "Yes"
                            "No"
                                   "No"
                                          "No"
                                                  "No"
                                                         "No"
                                                                "No"
                                                                        "No"
                                                                               "No"
                                                                                      "Yes"
                                                                                             "No"
##
                    "No"
                            "No"
                                                         "No"
                                                                "No"
                                                                                      "Yes"
                                                                                             "No"
##
     [2209]
             "No"
                                   "No"
                                          "Yes"
                                                 "Yes"
                                                                        "No"
                                                                               "No"
     [2221]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "Yes"
                                                 "No"
                                                         "Yes"
                                                                "No"
                                                                        "No"
                                                                               "No"
                                                                                      "No"
                                                                                              "No"
##
                                   "No"
                                                                               "No"
                                                                                      "No"
             "No"
                    "No"
                            "No"
                                                 "No"
                                                         "No"
                                                                "No"
##
     [2233]
                                          "Yes"
                                                                        "No"
                                                                                             "No"
                                                         "Yes"
##
     [2245]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                  "Yes"
                                                                "No"
                                                                        "No"
                                                                               "No"
                                                                                      "Yes"
                                                                                             "No"
     [2257]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "Yes"
                                                 "No"
                                                         "No"
                                                                "Yes"
                                                                        "No"
                                                                               "No"
                                                                                      "No"
                                                                                              "Yes"
##
             "No"
                            "Yes"
                                   "No"
                                                  "No"
                                                         "Yes"
                                                                "No"
                                                                               "Yes"
                                                                                      "No"
                                                                                             "Yes"
     [2269]
                    "No"
                                          "No"
                                                                        "No"
##
     [2281]
             "No"
                    "No"
                            "No"
                                   "Yes"
                                          "No"
                                                  "Yes"
                                                         "No"
                                                                "No"
                                                                        "No"
                                                                               "No"
                                                                                      "No"
                                                                                             "Yes"
##
             "No"
                                                                               "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "Yes"
                                                                        "No"
                                                                                      "No"
                                                                                             "No"
##
     [2293]
             "No"
                                                         "No"
##
     [2305]
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                  "No"
                                                                "No"
                                                                        "No"
                                                                               "No"
                                                                                      "Yes"
                                                                                             "No"
             "No"
                                          "No"
                                                         "Yes"
                                                                "No"
                                                                        "No"
                                                                                      "No"
                                                                                             "No"
##
     [2317]
                    "Yes"
                            "No"
                                   "No"
                                                  "Yes"
                                                                               "No"
     [2329]
             "No"
                    "Yes"
                            "No"
                                   "No"
                                          "Yes"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                        "No"
                                                                               "No"
                                                                                      "Yes"
                                                                                             "No"
##
                            "Yes"
                                   "No"
                                                         "No"
             "No"
                    "Yes"
                                          "No"
                                                  "No"
                                                                "No"
                                                                        "No"
                                                                               "No"
                                                                                      "No"
                                                                                              "No"
##
     [2341]
             "No"
                            "No"
                                          "No"
                                                  "No"
                                                         "Yes"
                                                                "No"
                                                                               "No"
                                                                                      "No"
##
     [2353]
                    "No"
                                   "No"
                                                                        "Yes"
                                                                                              "No"
             "No"
                                   "Yes"
                                                  "No"
                                                         "Yes"
                                                                "No"
                                                                                             "Yes"
                    "No"
                            "No"
                                          "No"
                                                                        "No"
                                                                               "No"
                                                                                      "Yes"
##
     [2365]
##
     [2377]
             "Yes"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                  "No"
                                                         "No"
                                                                "No"
                                                                        "No"
                                                                               "Yes"
                                                                                      "No"
                                                                                              "No"
             "No"
                    "No"
                            "No"
                                   "Yes"
                                          "No"
                                                  "No"
                                                         "No"
                                                                "Yes"
                                                                        "No"
                                                                               "Yes"
                                                                                      "No"
                                                                                             "Yes"
##
     [2389]
     [2401]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                  "No"
                                                         "Yes"
                                                                "Yes"
                                                                        "No"
                                                                               "Yes"
                                                                                      "No"
                                                                                              "No"
##
                                                         "No"
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                  "No"
                                                                "Yes"
                                                                        "Yes"
                                                                               "No"
                                                                                      "Yes"
                                                                                             "No"
##
     [2413]
##
     [2425]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                  "No"
                                                         "No"
                                                                "No"
                                                                        "Yes"
                                                                               "No"
                                                                                      "No"
                                                                                              "Yes"
                                                                "No"
##
     [2437]
             "Yes"
                    "No"
                            "No"
                                   "No"
                                          "Yes"
                                                 "No"
                                                         "Yes"
                                                                        "No"
                                                                               "No"
                                                                                      "Yes"
                                                                                             "No"
##
     [2449]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                  "No"
                                                         "No"
                                                                "No"
                                                                        "No"
                                                                               "No"
                                                                                      "No"
                                                                                              "No"
             "No"
                                                         "Yes"
                                                                "Yes"
     [2461]
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                  "Yes"
                                                                       "No"
                                                                               "No"
                                                                                      "Yes"
                                                                                             "No"
##
             "No"
                    "No"
                                   "No"
                                                 "Yes"
                                                         "No"
                                                                "Yes"
                                                                       "No"
                                                                               "No"
                                                                                             "No"
##
     [2473]
                            "No"
                                          "No"
                                                                                      "No"
             "Yes"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                  "No"
                                                         "No"
                                                                "No"
                                                                        "Yes"
                                                                               "No"
                                                                                      "No"
                                                                                              "No"
##
     [2485]
             "No"
                            "No"
                                   "No"
                                                         "No"
                                                                "Yes"
     [2497]
                    "Yes"
                                          "No"
                                                  "No"
                                                                        "No"
                                                                               "No"
                                                                                      "No"
                                                                                              "No"
##
     [2509]
             "No"
                    "No"
                            "Yes"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "Yes"
                                                                        "No"
                                                                               "No"
                                                                                      "No"
                                                                                              "No"
##
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "Yes"
                                                                "No"
                                                                        "No"
                                                                               "No"
                                                                                      "Yes"
                                                                                             "No"
##
     [2521]
     [2533]
                    "No"
                            "No"
                                   "No"
                                          "Yes"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                        "No"
                                                                               "No"
                                                                                      "No"
                                                                                              "No"
##
                            "Yes"
                                                         "Yes"
                                                                        "Yes"
     [2545]
             "No"
                    "Yes"
                                   "No"
                                          "No"
                                                  "No"
                                                                "No"
                                                                               "No"
                                                                                      "No"
                                                                                              "No"
##
             "Yes"
                    "No"
                                          "No"
                                                  "No"
                                                         "No"
                                                                "No"
                                                                        "No"
                                                                                             "No"
##
     [2557]
                            "No"
                                   "No"
                                                                               "No"
                                                                                      "No"
                    "No"
                            "Yes"
                                          "No"
                                                         "No"
                                                                                             "No"
     [2569]
             "Yes"
                                   "Yes"
                                                 "Yes"
                                                                "No"
                                                                        "No"
                                                                               "No"
                                                                                      "Yes"
##
                            "No"
                                                         "No"
##
     [2581]
             "Yes"
                    "No"
                                   "No"
                                          "Yes"
                                                 "No"
                                                                "No"
                                                                        "No"
                                                                               "No"
                                                                                      "Yes"
                                                                                             "No"
             "No"
                                   "Yes"
                                                  "No"
                                                         "No"
                                                                               "No"
                                                                                      "No"
     [2593]
                    "No"
                            "No"
                                          "No"
                                                                "No"
                                                                        "Yes"
                                                                                             "No"
##
                                                         "No"
##
     [2605]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "Yes"
                                                 "Yes"
                                                                "No"
                                                                        "Yes"
                                                                               "No"
                                                                                      "No"
                                                                                             "Yes"
             "Yes"
                    "Yes"
                           "No"
                                                         "Yes"
                                                                "No"
                                                                                             "Yes"
                                   "No"
                                          "No"
                                                 "Yes"
                                                                        "No"
                                                                               "No"
                                                                                      "No"
##
     [2617]
                                                         "No"
##
     [2629]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                  "No"
                                                                "No"
                                                                        "Yes"
                                                                               "No"
                                                                                      "No"
                                                                                             "No"
                                                                "No"
             "No"
                    "Yes" "No"
                                   "No"
                                          "No"
                                                  "Yes"
                                                        "No"
                                                                        "No"
                                                                               "No"
                                                                                      "Yes" "Yes"
##
     [2641]
```

```
[2653] "No"
                    "No"
                           "No"
                                          "Yes" "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
##
                                   "No"
##
     [2665]
             "No"
                    "Yes"
                           "No"
                                   "No"
                                          "Yes"
                                                 "Yes"
                                                        "No"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "Yes"
                                                                "No"
                                                                                             "No"
##
     [2677]
             "Yes"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
     [2689]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "Yes"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
##
             "No"
                                                         "No"
                                                                "No"
##
     [2701]
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "No"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
     [2713]
             "No"
                    "Yes"
                           "No"
                                   "No"
                                          "No"
                                                 "Yes"
                                                        "No"
                                                                "No"
                                                                       "No"
                                                                              "Yes"
                                                                                      "No"
                                                                                             "Yes"
##
     [2725]
             "No"
                    "Yes"
                           "No"
                                   "Yes"
                                          "No"
                                                 "No"
                                                         "Yes"
                                                                "Yes"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "Yes"
##
                                                                "No"
                                   "No"
                                                 "No"
                                                         "Yes"
                                                                              "No"
     [2737]
             "No"
                    "No"
                            "Yes"
                                          "No"
                                                                       "No"
                                                                                      "No"
                                                                                             "No"
##
##
     [2749]
             "No"
                    "No"
                            "No"
                                   "Yes"
                                          "No"
                                                 "Yes"
                                                        "No"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                      "Yes"
                                                                                             "No"
                                   "No"
                                                         "No"
                                                                       "No"
                                                                              "No"
                                                                                      "Yes"
                                                                                             "No"
     [2761]
             "No"
                    "No"
                            "No"
                                          "No"
                                                 "Yes"
                                                                "No"
##
##
     [2773]
             "No"
                    "No"
                            "Yes"
                                   "No"
                                          "Yes"
                                                 "No"
                                                         "Yes"
                                                                "No"
                                                                       "Yes"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
             "Yes"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "Yes"
                                                                       "No"
                                                                              "No"
                                                                                      "Yes"
                                                                                             "No"
     [2785]
##
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                              "Yes"
                                                                                      "No"
                                                                                             "No"
##
     [2797]
                                   "No"
                    "Yes"
                           "Yes"
                                                 "No"
                                                                       "Yes"
                                                                                      "No"
                                                                                             "No"
             "No"
                                          "No"
                                                         "No"
                                                                "Yes"
                                                                              "No"
     [2809]
##
                                                         "Yes"
                                                                       "No"
##
     [2821]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "No"
                                                                "Yes"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
             "Yes"
                    "No"
                            "Yes"
                                                         "Yes"
                                                                "No"
                                                                       "No"
##
     [2833]
                                   "No"
                                          "Yes"
                                                 "No"
                                                                              "No"
                                                                                      "Yes"
                                                                                             "No"
##
     [2845]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
                    "No"
                            "No"
                                   "Yes"
                                          "No"
                                                         "No"
                                                                "Yes"
                                                                       "Yes"
                                                                                             "No"
##
     [2857]
             "No"
                                                 "No"
                                                                              "No"
                                                                                      "No"
     [2869]
             "No"
                    "Yes"
                           "No"
                                   "Yes"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "Yes"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
##
                                                        "No"
                                                                "No"
             "Yes"
                                                                                      "No"
                    "No"
                            "Yes"
                                   "No"
                                                 "Yes"
                                                                       "No"
##
     Γ2881
                                          "Yes"
                                                                              "No"
                                                                                             "No"
     [2893]
##
             "No"
                    "Yes"
                           "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "Yes"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
##
     [2905]
             "No"
                    "Yes"
                           "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                              "Yes"
                                                                                      "No"
                                                                                             "No"
             "No"
                    "No"
                            "No"
                                   "No"
                                                 "No"
                                                         "No"
                                                                       "No"
                                                                              "No"
     [2917]
                                          "No"
                                                                "No"
                                                                                      "No"
                                                                                             "No"
##
     [2929]
             "No"
                    "No"
                            "Yes"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "Yes"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
##
                                                        "No"
                           "Yes"
             "No"
                    "Yes"
                                   "No"
                                          "No"
                                                 "Yes"
                                                                "Yes"
                                                                       "No"
                                                                              "Yes"
                                                                                      "No"
                                                                                             "No"
##
     [2941]
             "No"
##
     [2953]
                    "No"
                           "No"
                                   "Yes"
                                          "No"
                                                 "No"
                                                         "Yes"
                                                                "Yes"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "Yes"
             "Yes"
                                          "No"
                                                                "No"
                                                                       "No"
                                                                                             "No"
##
     [2965]
                    "Yes"
                           "Yes"
                                   "No"
                                                 "Yes"
                                                        "No"
                                                                              "No"
                                                                                      "No"
     [2977]
             "No"
                    "Yes"
                           "No"
                                   "No"
                                          "No"
                                                 "Yes"
                                                        "No"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                      "Yes"
                                                                                             "No"
##
                           "No"
                                   "No"
                                                 "No"
                                                         "No"
     [2989]
             "No"
                    "No"
                                          "No"
                                                                "No"
                                                                       "Yes"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
##
             "No"
                    "Yes"
                           "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "Yes"
                                                                       "No"
                                                                                             "Yes"
##
     [3001]
                                                                              "No"
                                                                                      "No"
             "No"
                    "No"
                            "No"
                                   "Yes"
                                                 "No"
                                                                "No"
                                          "No"
                                                         "No"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
##
     [3013]
##
     [3025]
             "No"
                    "No"
                            "Yes"
                                   "Yes"
                                          "No"
                                                 "No"
                                                         "Yes"
                                                                "No"
                                                                       "Yes"
                                                                              "Yes"
                                                                                      "No"
                                                                                             "Yes"
             "No"
                    "No"
                           "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "Yes"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
##
     [3037]
                           "No"
                                                         "No"
     [3049]
             "No"
                    "Yes"
                                   "No"
                                          "No"
                                                 "No"
                                                                "Yes"
                                                                       "Yes"
                                                                              "Yes"
                                                                                      "Yes"
                                                                                             "No"
##
             "No"
                                                                       "No"
                                                                                     "No"
                    "No"
                            "Yes"
                                   "No"
                                          "No"
                                                 "Yes"
                                                        "No"
                                                                "Yes"
                                                                              "Yes"
                                                                                             "Yes"
##
     [3061]
                                                                                      "Yes"
##
     [3073]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "Yes"
                                                                       "No"
                                                                              "No"
                                                                                             "No"
##
     [3085]
             "No"
                    "No"
                           "Yes"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                              "Yes"
                                                                                     "No"
                                                                                             "Yes"
##
     [3097]
             "No"
                    "No"
                            "Yes"
                                   "Yes"
                                          "Yes"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "Yes"
             "Yes"
                    "Yes"
                           "Yes"
                                                                "No"
                                                                                      "No"
##
     [3109]
                                   "No"
                                          "Yes"
                                                 "No"
                                                         "No"
                                                                       "No"
                                                                              "No"
                                                                                             "Yes"
             "Yes"
                    "No"
                            "No"
                                   "Yes"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "Yes"
                                                                       "No"
                                                                              "Yes"
                                                                                      "No"
                                                                                             "Yes"
##
     [3121]
     [3133]
            "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "Yes"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
##
             "No"
                    "No"
                            "No"
                                   "Yes"
                                          "No"
                                                         "No"
                                                                              "No"
                                                                                      "Yes"
##
     [3145]
                                                 "No"
                                                                "Yes"
                                                                       "No"
                                                                                             "No"
     [3157]
             "No"
                    "No"
                            "No"
                                   "Yes"
                                          "Yes"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "Yes"
                                                                              "Yes"
                                                                                     "No"
                                                                                             "No"
##
     [3169]
             "No"
                    "No"
                           "No"
                                   "No"
                                          "Yes"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
##
             "No"
                    "Yes"
                           "No"
                                   "Yes"
                                          "No"
                                                 "No"
                                                         "Yes"
                                                                "Yes"
                                                                       "No"
                                                                              "Yes"
                                                                                     "No"
                                                                                             "No"
##
     [3181]
             "Yes"
                    "No"
                                   "Yes"
                                                         "No"
                                                                       "Yes"
                                                                              "Yes"
                                                                                      "No"
     [3193]
                            "No"
                                          "No"
                                                 "No"
                                                                "No"
                                                                                             "No"
##
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "Yes"
                                                                       "Yes"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
##
     [3205]
                    "Yes"
                                                 "No"
                                                         "No"
                                                                       "Yes"
                                                                                             "No"
     [3217]
             "Yes"
                           "No"
                                   "No"
                                          "No"
                                                                "Yes"
                                                                              "No"
                                                                                      "Yes"
##
                           "No"
                                                         "No"
                                                                       "No"
                                                                              "Yes"
##
     [3229]
             "No"
                    "Yes"
                                   "No"
                                          "No"
                                                 "No"
                                                                "Yes"
                                                                                     "No"
                                                                                             "Yes"
                            "No"
                                   "No"
                                                                "No"
                                                                              "No"
                                                                                      "No"
             "No"
                    "No"
                                          "No"
                                                 "Yes"
                                                        "No"
                                                                       "No"
                                                                                             "No"
##
     [3241]
                    "No"
                                                        "No"
                                                                "Yes"
                                                                       "Yes" "Yes"
                                                                                     "No"
##
     [3253]
             "Yes"
                           "No"
                                   "No"
                                          "No"
                                                 "Yes"
                                                                                             "No"
                                                                       "Yes" "Yes" "No"
                                                         "No"
                                                                "No"
                                                                                             "No"
     [3265]
             "No"
                    "No"
                           "No"
                                   "No"
                                          "No"
                                                 "No"
##
                                                                       "Yes" "Yes" "Yes"
                                                                                             "No"
##
     [3277]
             "No"
                    "Yes"
                           "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "No"
             "No"
     [3289]
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "Yes"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                     "Yes" "No"
##
```

```
[3301] "Yes"
                    "No"
                            "No"
                                          "Yes" "No"
                                                        "No"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
##
                                   "No"
                                                                                             "No"
##
     [3313]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "Yes"
                                                 "Yes"
                                                        "No"
                                                                "No"
                                                                       "Yes"
                                                                              "Yes"
                                                                                     "No"
                                                                                             "No"
                                                        "No"
                                                                "No"
                                                                              "No"
                                                                                             "No"
##
     [3325]
            "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "No"
                                                                       "No"
                                                                                      "No"
     [3337]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "Yes"
                                                        "Yes"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                      "Yes"
                                                                                            "Yes"
##
             "Yes"
                    "No"
                                                                "No"
##
     [3349]
                            "Yes"
                                   "No"
                                          "No"
                                                 "No"
                                                        "Yes"
                                                                       "No"
                                                                              "No"
                                                                                     "Yes"
                                                                                            "No"
     [3361]
             "No"
                    "No"
                            "No"
                                   "Yes"
                                          "No"
                                                 "No"
                                                        "Yes"
                                                                "Yes"
                                                                       "No"
                                                                              "No"
                                                                                     "No"
                                                                                             "No"
##
                                                                "No"
     [3373]
             "No"
                    "No"
                            "No"
                                   "Yes"
                                          "No"
                                                 "Yes"
                                                        "No"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
##
                                                 "No"
                                                        "Yes"
                                                                "No"
     [3385]
             "No"
                    "No"
                            "Yes"
                                   "No"
                                          "No"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
##
             "Yes"
                                                                                      "Yes"
##
     [3397]
                    "Yes"
                            "No"
                                   "No"
                                          "No"
                                                 "No"
                                                        "Yes"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                            "No"
                                   "No"
                                          "Yes"
                                                 "Yes"
                                                        "Yes"
                                                                "No"
                                                                       "No"
                                                                              "No"
     [3409]
             "No"
                    "No"
                            "No"
                                                                                      "No"
                                                                                             "Yes"
##
##
     [3421]
             "Yes"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "No"
                                                        "No"
                                                                "No"
                                                                       "Yes"
                                                                              "Yes"
                                                                                     "Yes"
                                                                                            "No"
             "No"
                    "No"
                            "No"
                                   "Yes"
                                          "No"
                                                 "No"
                                                        "No"
                                                                "Yes"
                                                                       "No"
                                                                              "No"
                                                                                      "Yes"
                                                                                            "No"
     [3433]
##
             "No"
                    "Yes"
                           "No"
                                   "No"
                                          "No"
                                                 "No"
                                                        "No"
                                                                "No"
                                                                       "No"
                                                                              "Yes"
                                                                                     "No"
##
     [3445]
                                                                                             "No"
                    "No"
                            "Yes"
                                   "Yes"
                                                 "No"
                                                                       "Yes"
             "Yes"
                                          "No"
                                                        "No"
                                                                "Yes"
                                                                              "No"
                                                                                      "No"
     [3457]
                                                                                             "No"
##
##
     [3469]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "No"
                                                        "No"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "Yes"
             "No"
                    "No"
                                   "Yes"
                                          "No"
                                                        "No"
                                                                                     "No"
##
     [3481]
                            "No"
                                                 "No"
                                                                "No"
                                                                       "No"
                                                                              "Yes"
                                                                                             "Yes"
##
     [3493]
             "No"
                    "Yes"
                           "No"
                                   "Yes"
                                          "Yes"
                                                 "No"
                                                        "No"
                                                                "No"
                                                                       "No"
                                                                              "Yes"
                                                                                     "No"
                                                                                             "No"
             "Yes"
                    "Yes"
                           "Yes"
                                   "No"
                                                        "No"
                                                                "Yes"
                                                                       "Yes"
                                                                              "No"
                                                                                      "Yes"
##
     [3505]
                                          "No"
                                                 "No"
                                                                                            "Yes"
     [3517]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "No"
                                                        "Yes"
                                                                "Yes"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "Yes"
##
             "Yes"
                                   "Yes"
                    "No"
                            "No"
                                          "No"
                                                 "Yes"
                                                        "No"
                                                                "Yes"
                                                                       "No"
                                                                                     "No"
                                                                                             "Yes"
##
     [3529]
                                                                              "Yes"
##
     [3541]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "No"
                                                        "No"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
     [3553]
             "Yes"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "No"
                                                        "No"
                                                                "No"
                                                                       "Yes"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
##
             "Yes"
                    "No"
                            "Yes"
                                   "No"
                                          "Yes"
                                                 "Yes"
                                                        "No"
                                                                "Yes"
                                                                       "Yes"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
     [3565]
##
             "No"
     [3577]
                    "No"
                            "No"
                                   "Yes"
                                          "No"
                                                 "No"
                                                        "No"
                                                                "No"
                                                                       "No"
                                                                              "Yes"
                                                                                     "No"
                                                                                             "Yes"
##
                                   "No"
                                                                "No"
                                                                              "No"
             "No"
                    "No"
                            "Yes"
                                          "No"
                                                 "No"
                                                        "No"
                                                                       "Yes"
                                                                                      "Yes"
                                                                                            "No"
##
     [3589]
             "No"
##
     [3601]
                    "No"
                            "No"
                                   "Yes"
                                          "No"
                                                 "Yes"
                                                        "No"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                      "Yes"
                                                                                             "No"
             "No"
                                                        "Yes"
                                                                                      "No"
                                                                                             "No"
##
     [3613]
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "No"
                                                                "No"
                                                                       "Yes"
                                                                              "No"
     [3625]
             "Yes"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "No"
                                                        "No"
                                                                "Yes"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
##
                    "No"
                                   "No"
                                                        "No"
     [3637]
             "Yes"
                            "No"
                                          "No"
                                                 "No"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
##
            "No"
                            "No"
                                   "No"
                                          "No"
                                                 "No"
                                                        "No"
                                                                "No"
                                                                       "No"
                                                                                            "Yes"
##
     [3649]
                    "No"
                                                                              "No"
                                                                                      "Yes"
                            "Yes"
                                          "No"
                                                 "No"
                                                        "Yes"
                                                                "Yes"
                                                                       "Yes"
                                                                              "No"
             "Yes"
                    "No"
                                   "No"
                                                                                      "No"
                                                                                             "No"
##
     [3661]
             "No"
##
     [3673]
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "Yes"
                                                        "Yes"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
             "No"
                    "No"
                            "No"
                                   "No"
                                          "Yes"
                                                 "No"
                                                        "Yes"
                                                                "No"
                                                                       "Yes"
                                                                              "No"
                                                                                      "Yes"
                                                                                            "No"
##
     [3685]
     [3697]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "No"
                                                        "No"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
##
                    "No"
                            "Yes"
                                                        "No"
             "Yes"
                                   "No"
                                          "Yes"
                                                 "No"
                                                                "Yes"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
##
     [3709]
                           "No"
##
     [3721]
             "No"
                    "Yes"
                                   "No"
                                          "No"
                                                 "No"
                                                        "No"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                     "Yes"
                                                                                            "No"
                                                        "No"
##
     [3733]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "Yes"
                                                                "Yes"
                                                                       "No"
                                                                              "No"
                                                                                     "Yes"
                                                                                            "Yes"
##
     [3745]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "Yes"
                                                 "Yes"
                                                        "No"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
             "No"
                                                                                      "No"
                                                                                             "No"
##
     [3757]
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "No"
                                                        "No"
                                                                "No"
                                                                       "No"
                                                                              "No"
             "No"
                    "No"
                           "No"
                                   "Yes"
                                          "No"
                                                 "No"
                                                        "No"
                                                                "No"
                                                                       "Yes"
                                                                              "Yes"
                                                                                     "No"
                                                                                             "No"
##
     [3769]
     [3781]
             "No"
                    "Yes"
                           "No"
                                   "No"
                                          "No"
                                                 "No"
                                                        "No"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                      "Yes"
                                                                                            "Yes"
##
     [3793]
             "Yes"
                    "No"
                                   "No"
                                                        "No"
                                                                              "No"
##
                            "No"
                                          "Yes"
                                                 "No"
                                                                "No"
                                                                       "No"
                                                                                      "No"
                                                                                             "No"
             "Yes"
                    "Yes"
                           "No"
                                   "No"
                                          "No"
                                                 "No"
                                                        "No"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "Yes"
##
     [3805]
     [3817]
             "No"
                    "Yes"
                           "No"
                                   "No"
                                          "No"
                                                 "No"
                                                        "No"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "Yes"
##
     [3829]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "No"
                                                        "No"
                                                                "Yes"
                                                                       "Yes"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
##
             "No"
                    "No"
                           "No"
                                                                "Yes"
                                                                       "Yes"
                                                                                     "Yes"
     [3841]
                                   "No"
                                          "No"
                                                 "No"
                                                        "No"
                                                                              "Yes"
                                                                                            "No"
##
                                                                                            "No"
             "Yes"
                    "Yes"
                           "No"
                                   "No"
                                          "No"
                                                 "No"
                                                        "No"
                                                                "No"
                                                                       "No"
                                                                              "Yes"
                                                                                     "Yes"
##
     [3853]
                                          "No"
                                                                "No"
                                                                                             "No"
     [3865]
             "No"
                    "No"
                           "No"
                                   "Yes"
                                                 "No"
                                                        "Yes"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
##
                           "Yes"
                                   "No"
                                                        "No"
                                                                              "Yes"
##
     [3877]
             "Yes"
                    "Yes"
                                          "No"
                                                 "No"
                                                                "Yes"
                                                                       "No"
                                                                                     "No"
                                                                                             "Yes"
             "No"
                           "Yes"
                                                 "No"
                                                        "No"
                                                                "No"
                                                                              "No"
                                                                                             "No"
     [3889]
                    "No"
                                   "Yes"
                                          "No"
                                                                       "No"
                                                                                      "No"
##
                    "Yes"
                           "No"
                                                        "Yes"
                                                                "No"
                                                                                     "Yes" "No"
##
     [3901]
             "No"
                                   "No"
                                          "No"
                                                 "No"
                                                                       "No"
                                                                              "No"
                                                                                     "Yes" "No"
                                   "No"
                                                        "No"
                                                                "No"
                                                                              "No"
             "No"
                    "No"
                           "No"
                                          "No"
                                                 "Yes"
                                                                       "Yes"
##
     [3913]
                           "Yes"
                                                        "Yes"
                                                                "No"
                                                                       "Yes"
##
     [3925]
             "No"
                    "No"
                                   "No"
                                          "No"
                                                 "Yes"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
            "No"
                    "Yes" "No"
                                   "Yes" "No"
                                                 "No"
                                                        "Yes" "Yes" "Yes" "No"
                                                                                     "Yes" "No"
##
     [3937]
```

```
[3949] "No"
                    "No"
                            "No"
                                   "Yes" "Yes" "No"
                                                         "No"
                                                                "No"
                                                                        "No"
                                                                               "No"
                                                                                      "No"
##
                                                                                             "Yes"
##
     [3961]
             "No"
                    "No"
                            "Yes"
                                   "No"
                                          "No"
                                                  "No"
                                                         "No"
                                                                "No"
                                                                        "No"
                                                                               "Yes"
                                                                                      "Yes"
                                                                                             "No"
                                                         "Yes"
                                          "No"
                                                                "No"
##
     [3973] "Yes"
                    "No"
                            "No"
                                   "Yes"
                                                  "No"
                                                                        "No"
                                                                               "No"
                                                                                      "No"
                                                                                              "No"
             "No"
                    "No"
                            "No"
                                   "Yes"
                                          "No"
                                                  "No"
                                                         "Yes"
                                                                "No"
                                                                        "No"
                                                                               "No"
                                                                                      "No"
                                                                                              "No"
     [3985]
##
             "No"
                                                         "No"
##
     [3997]
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "Yes"
                                                                "No"
                                                                        "No"
                                                                               "Yes"
                                                                                      "No"
                                                                                              "No"
     [4009]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                        "No"
                                                                               "No"
                                                                                      "No"
                                                                                             "Yes"
##
     [4021]
             "No"
                                                                                      "Yes"
                    "No"
                            "No"
                                   "No"
                                          "Yes"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                        "No"
                                                                               "Yes"
                                                                                             "No"
##
                                                         "No"
     [4033]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "Yes"
                                                 "Yes"
                                                                "No"
                                                                        "Yes"
                                                                               "No"
                                                                                      "No"
                                                                                              "No"
##
             "No"
##
     [4045]
                    "Yes"
                            "No"
                                   "No"
                                          "No"
                                                  "Yes"
                                                         "No"
                                                                "No"
                                                                        "Yes"
                                                                               "Yes"
                                                                                      "No"
                                                                                              "No"
                                   "No"
                                                                "No"
                                                                               "No"
             "No"
                    "No"
                            "No"
                                          "No"
                                                 "Yes"
                                                         "No"
                                                                        "No"
                                                                                      "No"
                                                                                             "No"
##
     [4057]
##
     [4069]
             "No"
                    "No"
                            "Yes"
                                   "No"
                                          "No"
                                                  "Yes"
                                                         "Yes"
                                                                "No"
                                                                        "No"
                                                                               "No"
                                                                                      "Yes"
                                                                                             "Yes"
                    "No"
             "No"
                            "No"
                                   "Yes"
                                          "Yes"
                                                 "No"
                                                         "Yes"
                                                                "No"
                                                                        "Yes"
                                                                               "No"
                                                                                      "No"
                                                                                              "Yes"
     [4081]
##
             "No"
                    "No"
                            "Yes"
                                   "No"
                                          "No"
                                                  "No"
                                                         "No"
                                                                "No"
                                                                        "No"
                                                                               "Yes"
                                                                                      "No"
##
     [4093]
                                                                                              "No"
                    "Yes"
                            "No"
                                                         "No"
                                                                "No"
                                                                        "No"
                                                                               "No"
                                   "No"
                                          "Yes"
                                                 "No"
                                                                                      "No"
                                                                                              "Yes"
     [4105]
             "No"
##
     [4117]
             "Yes"
                    "No"
                            "Yes"
                                   "No"
                                          "No"
                                                  "Yes"
                                                         "No"
                                                                "No"
                                                                        "No"
                                                                               "No"
                                                                                      "No"
                                                                                              "No"
##
             "Yes"
                    "No"
                                                  "No"
                                                         "No"
                                                                                      "No"
##
     [4129]
                            "No"
                                   "No"
                                          "No"
                                                                "No"
                                                                        "No"
                                                                               "No"
                                                                                              "No"
     [4141]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                  "Yes"
                                                         "No"
                                                                "No"
                                                                        "No"
                                                                               "Yes"
                                                                                      "No"
                                                                                              "Yes"
##
             "Yes"
                    "No"
                            "Yes"
                                   "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                                      "No"
                                                                                              "No"
##
     [4153]
                                          "No"
                                                                        "No"
                                                                               "Yes"
     [4165]
             "No"
                    "No"
                            "Yes"
                                   "No"
                                          "No"
                                                  "No"
                                                         "No"
                                                                "Yes"
                                                                        "No"
                                                                               "Yes"
                                                                                      "No"
                                                                                              "No"
##
                                                         "No"
             "No"
                    "No"
                            "No"
                                   "No"
                                                                "No"
                                                                        "No"
                                                                               "No"
                                                                                      "No"
##
     [4177]
                                          "No"
                                                  "No"
                                                                                              "No"
##
     [4189]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "Yes"
                                                                "No"
                                                                        "No"
                                                                               "Yes"
                                                                                      "Yes"
                                                                                             "Yes"
     [4201]
             "No"
                    "No"
                            "Yes"
                                   "No"
                                          "No"
                                                  "No"
                                                         "No"
                                                                "No"
                                                                        "Yes"
                                                                               "No"
                                                                                      "No"
                                                                                              "No"
##
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                  "Yes"
                                                         "No"
                                                                        "No"
                                                                               "No"
                                                                                      "No"
                                                                                             "No"
     [4213]
                                                                "No"
##
     [4225]
             "Yes"
                    "Yes"
                            "No"
                                   "Yes"
                                          "Yes"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                        "No"
                                                                               "No"
                                                                                      "No"
                                                                                              "No"
##
             "No"
                    "No"
                            "No"
                                   "Yes"
                                          "No"
                                                  "No"
                                                         "No"
                                                                "No"
                                                                        "No"
                                                                               "No"
                                                                                      "Yes"
                                                                                             "No"
##
     [4237]
             "Yes"
                                                         "No"
##
     [4249]
                    "Yes"
                            "No"
                                   "No"
                                          "No"
                                                  "No"
                                                                "No"
                                                                        "No"
                                                                               "No"
                                                                                      "No"
                                                                                              "Yes"
             "No"
                                                                "No"
                                                                        "No"
                                                                                      "No"
##
     [4261]
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                  "Yes"
                                                         "No"
                                                                               "No"
                                                                                              "No"
     [4273]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                  "No"
                                                         "No"
                                                                "No"
                                                                        "Yes"
                                                                               "Yes"
                                                                                      "No"
                                                                                              "No"
##
                                                         "No"
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                  "No"
                                                                "No"
                                                                        "No"
                                                                               "No"
                                                                                      "No"
                                                                                              "No"
##
     [4285]
             "No"
                            "No"
                                          "Yes"
                                                 "Yes"
                                                         "No"
                                                                "No"
                                                                        "No"
                                                                               "Yes"
                                                                                      "No"
                                                                                              "No"
##
     [4297]
                    "Yes"
                                   "No"
             "Yes"
                                          "No"
                                                  "No"
                                                         "Yes"
                                                                "No"
                                                                               "No"
                    "No"
                            "No"
                                   "No"
                                                                        "No"
                                                                                             "No"
##
     [4309]
                                                                                      "No"
             "No"
                                                         "Yes"
##
     [4321]
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                  "Yes"
                                                                "No"
                                                                        "Yes"
                                                                               "No"
                                                                                      "No"
                                                                                              "No"
             "No"
                    "Yes"
                            "No"
                                   "Yes"
                                          "No"
                                                  "No"
                                                         "No"
                                                                "Yes"
                                                                        "No"
                                                                               "Yes"
                                                                                      "No"
                                                                                              "Yes"
##
     [4333]
     [4345]
             "No"
                    "Yes"
                            "No"
                                   "No"
                                          "No"
                                                  "No"
                                                         "No"
                                                                "Yes"
                                                                        "Yes"
                                                                               "No"
                                                                                      "No"
                                                                                              "No"
##
                                                                "No"
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                  "No"
                                                         "No"
                                                                        "Yes"
                                                                               "No"
                                                                                      "Yes"
##
     [4357]
                                                                                             "No"
                                                                       "No"
     [4369]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                  "No"
                                                         "No"
                                                                "Yes"
                                                                               "No"
                                                                                      "No"
                                                                                              "No"
##
##
     Γ4381
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                  "No"
                                                         "No"
                                                                "Yes"
                                                                        "No"
                                                                               "No"
                                                                                      "Yes" "Yes"
     [4393]
             "No"
                    "Yes"
                            "No"
                                   "Yes"
                                          "No"
                                                  "No"
                                                         "Yes"
                                                                "No"
                                                                        "Yes"
                                                                               "No"
                                                                                      "No"
                                                                                              "No"
##
             "No"
                                                                                      "No"
     [4405]
                    "No"
                            "Yes"
                                   "No"
                                          "No"
                                                  "No"
                                                         "No"
                                                                "No"
                                                                        "No"
                                                                               "Yes"
                                                                                              "Yes"
##
             "No"
                    "No"
                            "No"
                                   "No"
                                          "Yes"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                        "No"
                                                                               "No"
                                                                                      "Yes"
                                                                                             "No"
     [4417]
##
             "No"
                    "Yes"
                            "Yes"
                                   "No"
                                          "No"
                                                  "Yes"
                                                         "No"
                                                                "No"
                                                                        "Yes"
                                                                               "No"
                                                                                      "No"
                                                                                              "Yes"
##
     [4429]
                                   "Yes"
                                                         "No"
                                                                               "No"
     [4441]
             "No"
                    "No"
                            "No"
                                          "No"
                                                  "Yes"
                                                                "No"
                                                                        "No"
                                                                                      "No"
                                                                                              "No"
##
             "No"
                    "No"
                            "Yes"
                                   "Yes"
                                          "No"
                                                  "Yes"
                                                         "No"
                                                                "No"
                                                                        "No"
                                                                               "No"
                                                                                      "Yes"
                                                                                             "No"
##
     [4453]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                  "No"
                                                         "No"
                                                                "No"
                                                                        "No"
                                                                               "No"
                                                                                      "No"
                                                                                             "Yes"
##
     [4465]
             "No"
                    "Yes"
                            "No"
                                   "No"
                                          "No"
                                                  "No"
                                                         "Yes"
                                                                "No"
                                                                        "No"
                                                                               "No"
                                                                                      "No"
                                                                                             "Yes"
##
     [4477]
                                   "Yes"
                                                         "No"
                                                                "Yes"
     [4489]
             "No"
                    "No"
                            "Yes"
                                          "No"
                                                  "No"
                                                                        "No"
                                                                               "No"
                                                                                      "Yes"
                                                                                             "No"
##
             "No"
                    "No"
                                                  "Yes"
                                                         "No"
                                                                "No"
                                                                        "No"
                                                                                      "No"
                                                                                              "Yes"
##
     [4501]
                            "No"
                                   "No"
                                          "No"
                                                                               "No"
                                   "No"
                                                  "No"
     [4513]
             "Yes"
                    "No"
                            "No"
                                          "No"
                                                         "No"
                                                                "Yes"
                                                                        "No"
                                                                               "No"
                                                                                      "No"
                                                                                             "No"
##
                                                         "No"
##
     [4525]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                  "No"
                                                                "No"
                                                                        "No"
                                                                               "No"
                                                                                      "No"
                                                                                             "Yes"
                            "No"
                                   "Yes"
     [4537]
             "No"
                    "No"
                                          "No"
                                                  "Yes"
                                                         "No"
                                                                "No"
                                                                        "No"
                                                                               "No"
                                                                                      "Yes" "No"
##
                    "No"
                                                                "No"
##
     [4549]
             "Yes"
                            "No"
                                   "No"
                                          "No"
                                                  "No"
                                                         "Yes"
                                                                        "No"
                                                                               "No"
                                                                                      "No"
                                                                                             "Yes"
                                   "No"
                                                         "No"
                                                                                      "Yes" "No"
             "No"
                    "No"
                            "No"
                                          "No"
                                                  "Yes"
                                                                "No"
                                                                        "Yes"
                                                                               "No"
##
     [4561]
                                   "Yes"
                                                                        "Yes"
                                                                                      "Yes" "No"
##
     [4573]
             "No"
                    "No"
                            "Yes"
                                          "No"
                                                  "No"
                                                         "No"
                                                                "No"
                                                                               "Yes"
                                                                                             "Yes"
     [4585]
             "No"
                    "No"
                            "Yes"
                                  "No"
                                          "No"
                                                  "No"
                                                         "No"
                                                                "No"
                                                                        "No"
                                                                               "No"
                                                                                      "No"
##
```

```
[4597] "Yes"
                    "Yes" "No"
                                          "Yes" "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                      "Yes" "No"
##
                                   "No"
##
     [4609]
             "No"
                    "Yes" "No"
                                   "Yes"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
                                                         "Yes"
                                                                "Yes"
                    "Yes" "No"
                                                                              "No"
                                                                                             "No"
##
     [4621]
             "No"
                                   "No"
                                          "Yes"
                                                 "Yes"
                                                                       "Yes"
                                                                                      "No"
     [4633]
             "No"
                    "Yes"
                           "No"
                                   "No"
                                          "No"
                                                 "Yes"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                               "No"
                                                                                      "Yes"
                                                                                             "Yes"
##
             "Yes"
                                                         "Yes"
                                                                "No"
##
     [4645]
                    "Yes"
                           "No"
                                   "No"
                                          "No"
                                                 "Yes"
                                                                       "No"
                                                                              "Yes"
                                                                                      "No"
                                                                                             "Yes"
     [4657]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "Yes"
                                                                              "No"
                                                                                      "No"
                                                                                             "Yes"
##
     [4669]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "Yes"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
##
     [4681]
                                                         "Yes"
                                                                "No"
             "No"
                    "No"
                            "Yes"
                                   "No"
                                          "No"
                                                 "No"
                                                                       "Yes"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
##
             "Yes"
##
     [4693]
                    "Yes"
                           "No"
                                   "No"
                                          "Yes"
                                                 "Yes"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
                                   "No"
     [4705]
             "No"
                    "No"
                            "No"
                                          "Yes"
                                                 "No"
                                                         "Yes"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
##
##
     [4717]
             "No"
                    "No"
                            "Yes"
                                   "Yes"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "Yes"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
     [4729]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                               "No"
                                                                                      "No"
                                                                                             "No"
##
             "Yes"
                    "No"
                            "No"
                                   "No"
                                          "Yes"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                                             "Yes"
##
     [4741]
                                                                              "No"
                                                                                      "No"
                    "Yes"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "No"
     [4753]
             "Yes"
                           "No"
                                                                                             "No"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
##
     [4765]
             "No"
                    "No"
                            "Yes"
                                   "Yes"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
##
             "No"
                                                 "No"
                                                         "Yes"
                                                                "No"
##
     [4777]
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                                       "No"
                                                                              "Yes"
                                                                                      "No"
                                                                                             "No"
     [4789]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "Yes"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "Yes"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
##
             "Yes" "Yes"
                           "Yes"
                                   "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                              "Yes"
                                                                                             "No"
##
     [4801]
                                          "No"
                                                 "No"
                                                                                      "No"
     [4813]
             "Yes"
                    "Yes"
                           "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "Yes"
                                                                "Yes"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
##
                                                 "No"
                                                                                      "No"
             "Yes"
                    "No"
                            "No"
                                   "No"
                                                         "No"
                                                                "No"
                                                                       "No"
##
     [4825]
                                          "No"
                                                                              "Yes"
                                                                                             "No"
##
     [4837]
             "Yes"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                      "Yes"
                                                                                             "No"
     [4849]
            "Yes"
                    "No"
                            "No"
                                   "No"
                                          "Yes"
                                                 "No"
                                                         "Yes"
                                                                "No"
                                                                       "No"
                                                                              "Yes"
                                                                                      "No"
                                                                                             "Yes"
##
             "Yes"
                    "No"
                            "Yes"
                                   "No"
                                                         "No"
                                                                       "No"
                                                                               "No"
                                                                                             "Yes"
     [4861]
                                          "No"
                                                  "No"
                                                                "No"
                                                                                      "No"
##
     [4873]
             "No"
                    "Yes"
                           "Yes"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "Yes"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
##
                            "Yes"
                                                                       "Yes"
     [4885]
             "No"
                    "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "Yes"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
##
             "No"
##
     [4897]
                    "No"
                            "No"
                                   "Yes"
                                          "Yes"
                                                 "No"
                                                         "Yes"
                                                                "Yes"
                                                                       "Yes"
                                                                              "Yes"
                                                                                      "No"
                                                                                             "No"
             "No"
                                          "No"
                                                                                      "No"
                                                                                             "No"
##
     [4909]
                    "No"
                            "No"
                                   "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "Yes"
                                                                              "No"
     [4921]
             "No"
                    "Yes"
                           "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "Yes"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
##
                                   "Yes"
                                          "No"
                                                         "No"
                                                                "No"
                                                                              "Yes"
                                                                                      "Yes"
                                                                                             "No"
             "No"
                    "No"
                            "No"
                                                 "No"
                                                                       "No"
##
     [4933]
                    "No"
                           "No"
                                   "No"
                                          "Yes"
                                                 "No"
                                                         "Yes"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                      "Yes"
                                                                                             "No"
##
     [4945]
             "No"
                           "Yes"
             "No"
                                          "No"
                                                 "No"
                                                                "No"
                                                                       "Yes"
                    "Yes"
                                   "No"
                                                         "No"
                                                                              "No"
                                                                                      "Yes" "Yes"
##
     [4957]
                                                                       "Yes"
##
     [4969]
             "No"
                    "Yes"
                           "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                              "Yes"
                                                                                      "No"
                                                                                             "No"
             "No"
                    "No"
                            "No"
                                   "No"
                                          "Yes"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                              "Yes"
                                                                                      "No"
                                                                                             "Yes"
##
     [4981]
     [4993]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
##
                                                                "No"
             "No"
                    "No"
                            "No"
                                   "No"
                                          "Yes"
                                                 "Yes"
                                                         "No"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
##
     [5005]
##
                                   "Yes"
     [5017]
             "No"
                    "No"
                           "Yes"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "Yes"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
##
     [5029]
             "Yes"
                    "No"
                           "Yes"
                                   "Yes"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                               "No"
                                                                                      "No"
                                                                                             "No"
##
     [5041]
             "No"
                    "Yes"
                           "No"
                                   "Yes"
                                          "No"
                                                  "No"
                                                         "No"
                                                                "No"
                                                                       "Yes"
                                                                              "No"
                                                                                      "No"
                                                                                             "Yes"
             "No"
                                                                                             "No"
##
     [5053]
                    "No"
                            "No"
                                   "No"
                                          "Yes"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                               "No"
                                                                                      "No"
             "No"
                    "No"
                           "No"
                                   "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                             "No"
##
     [5065]
                                          "No"
                                                                                      "No"
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "Yes"
                                                         "No"
                                                                "No"
                                                                       "Yes"
                                                                              "No"
                                                                                      "No"
                                                                                             "Yes"
##
     [5077]
     [5089]
             "Yes"
                    "Yes"
                           "No"
                                   "No"
                                                         "No"
                                                                               "No"
##
                                          "No"
                                                 "No"
                                                                "No"
                                                                       "No"
                                                                                      "No"
                                                                                             "No"
     [5101]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "Yes"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                              "Yes"
                                                                                      "No"
                                                                                             "Yes"
##
     [5113]
             "No"
                    "No"
                           "Yes"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                      "Yes"
                                                                                             "No"
##
     [5125]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "Yes"
                                                         "Yes"
                                                                "Yes"
                                                                       "No"
                                                                              "No"
                                                                                      "Yes"
                                                                                             "No"
##
                                   "No"
                                                 "No"
                                                         "Yes"
                                                                "No"
                                                                                      "No"
     [5137]
             "No"
                    "No"
                            "No"
                                          "No"
                                                                       "No"
                                                                               "No"
                                                                                             "No"
##
             "No"
                    "Yes"
                           "Yes"
                                   "No"
                                          "No"
                                                  "Yes"
                                                         "Yes"
                                                                "No"
                                                                       "Yes"
                                                                              "Yes"
                                                                                      "No"
##
     [5149]
                                                                                             "No"
                                                 "No"
                                                                "Yes"
     [5161]
             "Yes"
                    "No"
                            "No"
                                   "No"
                                          "Yes"
                                                         "Yes"
                                                                       "No"
                                                                              "Yes"
                                                                                      "No"
                                                                                             "No"
##
                                   "Yes"
                                                         "No"
##
     [5173]
             "No"
                    "No"
                            "Yes"
                                          "No"
                                                 "No"
                                                                "No"
                                                                       "Yes"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
             "Yes"
                                   "No"
                                                         "No"
                                                                       "No"
     [5185]
                    "No"
                            "No"
                                          "No"
                                                 "Yes"
                                                                "No"
                                                                              "Yes"
                                                                                      "No"
                                                                                             "No"
##
             "No"
##
     [5197]
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "Yes"
                           "Yes"
                                  "No"
                                                 "No"
                                                         "No"
             "No"
                    "No"
                                          "Yes"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
##
     [5209]
                            "Yes"
##
     [5221]
             "No"
                    "No"
                                   "No"
                                          "No"
                                                  "No"
                                                         "No"
                                                                "No"
                                                                       "Yes"
                                                                              "No"
                                                                                      "Yes"
                                                                                             "No"
             "No"
                    "Yes" "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "Yes"
                                                                "No"
                                                                       "No"
                                                                              "Yes" "No"
                                                                                             "Yes"
##
     [5233]
```

```
[5245] "No"
                           "No"
                                          "Yes" "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                              "Yes" "No"
##
                    "Yes"
                                   "No"
                                                                                             "No"
##
     [5257]
             "No"
                    "No"
                            "No"
                                   "Yes"
                                          "Yes"
                                                 "No"
                                                         "No"
                                                                "Yes"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
                                                         "No"
                                                                                     "Yes"
                                                                "No"
##
     [5269]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "No"
                                                                       "No"
                                                                              "Yes"
                                                                                             "No"
     [5281]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                              "Yes"
                                                                                      "No"
                                                                                             "No"
##
             "No"
                                                                "No"
                                                                                     "No"
##
     [5293]
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                       "No"
                                                                              "Yes"
                                                                                             "Yes"
     [5305]
             "No"
                    "Yes"
                           "No"
                                   "No"
                                          "Yes"
                                                 "No"
                                                         "Yes"
                                                                "No"
                                                                       "No"
                                                                               "No"
                                                                                      "No"
                                                                                             "No"
##
             "No"
     [5317]
                    "No"
                            "Yes"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                      "Yes"
                                                                                             "No"
##
                                                                                             "No"
                                                                                      "Yes"
     [5329]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "Yes"
                                                                       "No"
                                                                               "Yes"
##
                            "Yes"
##
     [5341]
             "No"
                    "No"
                                   "No"
                                          "Yes"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "Yes"
                                                 "No"
                                                         "Yes"
                                                                       "No"
                                                                               "No"
             "No"
                    "No"
                           "No"
                                   "No"
                                          "No"
                                                                "No"
                                                                                      "No"
                                                                                             "Yes"
##
     [5353]
##
     [5365]
             "No"
                    "Yes"
                           "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "Yes"
                                                                       "No"
                                                                              "Yes"
                                                                                      "Yes" "No"
     [5377]
             "No"
                    "No"
                            "Yes"
                                   "No"
                                          "No"
                                                 "Yes"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                              "Yes"
                                                                                      "No"
                                                                                             "No"
##
             "No"
                    "No"
                           "Yes"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "Yes"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
##
     [5389]
                                   "No"
                           "Yes"
                                                         "No"
                                                                "No"
     [5401]
             "Yes"
                    "Yes"
                                          "No"
                                                 "No"
                                                                       "No"
                                                                              "Yes"
                                                                                     "Yes" "Yes"
##
##
     [5413]
             "No"
                    "No"
                            "No"
                                   "Yes"
                                          "Yes"
                                                 "Yes"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                      "Yes" "No"
             "No"
                                   "Yes"
                                                 "No"
                                                         "No"
                                                                "Yes"
                                                                              "No"
                                                                                      "Yes" "Yes"
##
     [5425]
                    "No"
                            "No"
                                          "No"
                                                                       "No"
     [5437]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                  "No"
                                                         "Yes"
                                                                "No"
                                                                       "No"
                                                                              "Yes"
                                                                                      "Yes" "No"
##
                    "Yes"
                           "Yes"
                                   "Yes"
                                                         "Yes"
                                                                "No"
                                                                              "No"
                                                                                      "No"
##
     [5449]
             "No"
                                          "No"
                                                 "No"
                                                                       "No"
                                                                                             "Yes"
     [5461]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                  "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                              "Yes"
                                                                                      "No"
                                                                                             "No"
##
             "No"
                           "Yes"
                                                                       "No"
                                                                                      "No"
                    "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                              "No"
##
     [5473]
                                                                                             "Yes"
##
     [5485]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "Yes"
                                                         "No"
                                                                "Yes"
                                                                       "No"
                                                                               "No"
                                                                                      "No"
                                                                                             "No"
     [5497]
             "No"
                    "Yes"
                           "No"
                                   "Yes"
                                          "No"
                                                 "Yes"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                               "No"
                                                                                      "No"
                                                                                             "Yes"
##
             "Yes"
                    "No"
                            "Yes"
                                   "No"
                                                  "Yes"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                               "No"
                                                                                      "No"
                                                                                             "No"
     [5509]
                                          "No"
##
     [5521]
             "No"
                    "Yes"
                           "Yes"
                                   "Yes"
                                          "No"
                                                 "No"
                                                         "Yes"
                                                                "No"
                                                                       "No"
                                                                              "Yes"
                                                                                      "No"
                                                                                             "No"
##
                    "No"
                            "Yes"
                                   "No"
     [5533]
             "Yes"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "Yes"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
##
             "No"
##
     [5545]
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "Yes"
                                                         "No"
                                                                "No"
                                                                       "Yes"
                                                                              "Yes"
                                                                                      "No"
                                                                                             "No"
                                                                                      "No"
                                                                                             "No"
##
     [5557]
             "Yes"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                               "No"
     [5569]
             "No"
                    "Yes"
                           "Yes"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                               "No"
                                                                                      "Yes"
                                                                                             "Yes"
##
             "Yes"
                    "No"
                                                         "Yes"
                                                                "No"
                                                                                      "No"
                            "No"
                                   "No"
                                          "No"
                                                 "No"
                                                                       "No"
                                                                              "No"
                                                                                             "No"
##
     [5581]
             "Yes"
                    "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
##
     [5593]
                            "No"
                                                                "No"
                                          "No"
                                                 "No"
                                                                "No"
                                                                                      "Yes"
                                                                                             "No"
             "Yes"
                    "No"
                            "No"
                                   "No"
                                                         "No"
                                                                       "No"
                                                                              "Yes"
##
     [5605]
             "No"
                                                 "No"
##
     [5617]
                    "No"
                            "No"
                                   "No"
                                          "Yes"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                              "Yes"
                                                                                      "No"
                                                                                             "No"
##
     [5629]
                           "Yes"
     [5641]
             "No"
                    "Yes"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
##
             "No"
                                                         "No"
                    "No"
                            "No"
                                   "No"
                                          "Yes"
                                                 "No"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
##
     [5653]
##
     [5665]
             "No"
                    "Yes"
                           "No"
                                   "No"
                                          "Yes"
                                                 "Yes"
                                                         "No"
                                                                "No"
                                                                       "Yes"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
                            "Yes"
##
     [5677]
             "No"
                    "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                               "No"
                                                                                      "Yes" "Yes"
##
     [5689]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                               "No"
                                                                                      "No"
                                                                                             "Yes"
             "Yes"
                                                         "No"
                                                                                      "Yes" "No"
##
     [5701]
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "Yes"
                                                                "Yes"
                                                                       "Yes"
                                                                              "No"
     [5713]
             "No"
                    "No"
                           "Yes"
                                  "No"
                                          "Yes"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                               "No"
                                                                                      "Yes"
                                                                                             "No"
##
     [5725]
             "No"
                    "No"
                            "Yes"
                                   "No"
                                          "No"
                                                 "Yes"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                               "No"
                                                                                      "No"
                                                                                             "Yes"
##
             "No"
                    "No"
                            "No"
                                   "No"
                                                         "No"
                                                                "No"
                                                                               "No"
##
     [5737]
                                          "Yes"
                                                 "No"
                                                                       "No"
                                                                                      "No"
                                                                                             "No"
     [5749]
             "No"
                    "Yes"
                           "Yes"
                                   "No"
                                          "Yes"
                                                 "Yes"
                                                         "Yes"
                                                                "No"
                                                                       "No"
                                                                               "No"
                                                                                      "No"
                                                                                             "No"
##
     [5761]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "Yes"
                                                                       "No"
                                                                               "No"
                                                                                      "No"
                                                                                             "No"
##
     [5773]
             "No"
                    "No"
                            "No"
                                   "Yes"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "Yes"
                                                                       "No"
                                                                               "No"
                                                                                      "No"
                                                                                             "No"
##
             "Yes"
                    "No"
                                   "No"
                                                         "Yes"
                                                                "No"
     [5785]
                            "No"
                                          "No"
                                                  "Yes"
                                                                       "No"
                                                                               "No"
                                                                                      "No"
                                                                                             "No"
##
             "No"
                           "No"
                                   "No"
                                          "No"
                                                 "Yes"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                                             "No"
##
     [5797]
                    "Yes"
                                                                               "No"
                                                                                      "No"
                    "No"
                                                 "No"
     [5809]
             "No"
                            "Yes"
                                   "No"
                                          "No"
                                                         "Yes"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
##
                           "Yes"
                                   "Yes"
                                                         "No"
                                                                "Yes"
                                                                       "No"
##
     [5821]
             "No"
                    "No"
                                          "No"
                                                 "Yes"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
             "No"
                           "Yes"
                                   "No"
                                                 "No"
                                                         "No"
                                                                "Yes"
                                                                       "No"
                                                                                      "Yes"
     [5833]
                    "Yes"
                                          "No"
                                                                              "Yes"
                                                                                             "No"
##
                    "No"
                                                                              "Yes"
                                                                                      "Yes"
##
     [5845]
             "Yes"
                           "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "Yes"
                                                                       "No"
                                                                                             "No"
                    "Yes"
                           "No"
                                                                "Yes"
             "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
##
     [5857]
##
     [5869]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "Yes"
             "No"
     [5881]
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "Yes"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
##
```

```
[5893] "No"
                    "No"
                            "No"
                                   "No"
                                          "Yes" "Yes"
                                                               "No"
                                                                              "No"
                                                                                     "Yes" "No"
##
                                                        "Yes"
                                                                       "No"
##
     [5905]
             "No"
                    "No"
                            "Yes"
                                   "Yes"
                                          "Yes"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "Yes"
                                                         "No"
                                                                "No"
                                                                                             "No"
##
     [5917]
             "No"
                    "No"
                            "Yes"
                                   "No"
                                          "No"
                                                 "No"
                                                                       "Yes"
                                                                              "No"
                                                                                      "No"
     [5929]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                              "Yes"
                                                                                     "No"
                                                                                             "Yes"
##
             "No"
                    "No"
                                                         "Yes"
                                                                "Yes"
##
     [5941]
                            "No"
                                   "No"
                                          "Yes"
                                                 "No"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
     [5953]
             "Yes"
                    "Yes"
                           "No"
                                   "Yes"
                                          "No"
                                                 "Yes"
                                                        "Yes"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
##
     [5965]
             "No"
                    "No"
                            "No"
                                   "Yes"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
##
                                                         "Yes"
                                                                "No"
             "No"
                                   "No"
                                                 "No"
     [5977]
                    "No"
                            "No"
                                          "Yes"
                                                                       "Yes"
                                                                              "Yes"
                                                                                     "No"
                                                                                             "No"
##
             "No"
##
     [5989]
                    "No"
                            "No"
                                   "Yes"
                                          "Yes"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
                                          "No"
                                                 "Yes"
                                                        "No"
                                                                "No"
                                                                       "No"
                                                                              "No"
             "No"
                    "No"
                            "No"
                                   "No"
                                                                                      "No"
                                                                                             "No"
##
     [6001]
##
     [6013]
             "No"
                    "No"
                            "No"
                                   "Yes"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                              "Yes"
                                                                                     "No"
                                                                                             "Yes"
             "No"
                    "No"
                            "No"
                                   "Yes"
                                          "Yes"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
     [6025]
##
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                              "Yes"
                                                                                     "No"
                                                                                             "Yes"
##
     [6037]
                                   "No"
                            "Yes"
                                                 "No"
                                                         "No"
                                                                "No"
                    "No"
                                          "No"
                                                                              "Yes"
                                                                                     "No"
                                                                                             "No"
     [6049]
             "No"
                                                                       "No"
##
                            "Yes"
                                                                              "Yes"
                                                                                     "Yes"
                                                                                            "No"
##
     [6061]
             "No"
                    "No"
                                   "No"
                                          "No"
                                                 "Yes"
                                                        "Yes"
                                                                "No"
                                                                       "No"
             "No"
                                          "No"
                                                 "No"
                                                         "Yes"
                                                                "No"
                                                                              "No"
                                                                                     "Yes"
                                                                                             "Yes"
##
     [6073]
                    "No"
                            "No"
                                   "Yes"
                                                                       "No"
##
     [6085]
             "No"
                    "No"
                            "No"
                                   "Yes"
                                          "Yes"
                                                 "Yes"
                                                        "Yes"
                                                                "No"
                                                                       "Yes"
                                                                              "No"
                                                                                     "No"
                                                                                             "No"
                    "Yes"
                           "No"
                                   "No"
                                          "Yes"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "Yes"
                                                                              "No"
                                                                                     "No"
                                                                                             "No"
##
     [6097]
             "No"
                                                        "Yes"
     [6109]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "Yes"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
##
                                                        "No"
                                                                "No"
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "Yes"
                                                                       "Yes"
                                                                              "No"
                                                                                      "No"
##
     [6121]
                                                                                             "Yes"
     [6133]
##
             "Yes"
                    "No"
                            "No"
                                   "Yes"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                              "Yes"
                                                                                     "No"
                                                                                             "No"
     [6145]
             "No"
                    "No"
                            "Yes"
                                   "No"
                                          "No"
                                                 "Yes"
                                                        "Yes"
                                                                "Yes"
                                                                       "No"
                                                                              "Yes"
                                                                                     "No"
                                                                                             "Yes"
##
             "No"
                            "No"
                                   "No"
                                          "Yes"
                                                 "No"
                                                         "No"
                                                                "Yes"
                                                                       "No"
                                                                              "Yes"
                                                                                     "No"
                                                                                             "No"
     [6157]
                    "No"
##
     [6169]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
##
                                                                "No"
                                                                              "No"
     [6181]
             "No"
                    "No"
                            "No"
                                   "Yes"
                                          "Yes"
                                                 "No"
                                                         "Yes"
                                                                       "No"
                                                                                     "Yes"
                                                                                             "No"
##
             "Yes"
##
     [6193]
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
                                          "No"
##
     [6205]
             "No"
                    "No"
                            "No"
                                   "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
             "Yes"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "Yes"
                                                                "Yes"
                                                                       "No"
                                                                              "Yes"
                                                                                     "No"
                                                                                             "Yes"
##
     [6217]
                           "Yes"
                                   "No"
                                                         "Yes"
                                                                "No"
                                                                              "Yes"
                                                                                     "No"
     [6229]
             "No"
                    "Yes"
                                          "No"
                                                 "No"
                                                                       "Yes"
                                                                                             "No"
##
             "Yes"
                    "No"
                            "Yes"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
##
     [6241]
                                                                "No"
             "No"
                    "Yes"
                                          "No"
                                                 "No"
                           "No"
                                   "No"
                                                         "Yes"
                                                                       "No"
                                                                              "Yes"
                                                                                     "Yes" "No"
##
     [6253]
             "Yes"
                                                         "Yes"
##
     [6265]
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "No"
                                                                "Yes"
                                                                       "No"
                                                                              "No"
                                                                                     "Yes"
                                                                                            "Yes"
             "Yes" "Yes"
                           "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "Yes"
                                                               "Yes"
                                                                       "Yes"
                                                                              "No"
                                                                                     "No"
                                                                                             "No"
##
     [6277]
                    "No"
     [6289]
             "Yes"
                            "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "Yes"
                                                                "No"
                                                                       "Yes"
                                                                              "Yes"
                                                                                     "No"
                                                                                             "No"
##
             "No"
                                                         "No"
                    "Yes"
                           "No"
                                   "No"
                                          "Yes"
                                                 "No"
                                                                "Yes"
                                                                       "No"
                                                                              "No"
                                                                                      "Yes"
##
     [6301]
                                                                                            "No"
                                                                              "Yes"
##
     [6313]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                                     "No"
                                                                                             "No"
                                                 "No"
##
     Γ63251
             "No"
                    "No"
                           "No"
                                   "No"
                                          "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "Yes"
##
     [6337]
             "No"
                    "Yes"
                           "Yes"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
             "Yes"
                    "Yes"
                           "No"
                                                         "No"
                                                                                     "Yes" "No"
##
     [6349]
                                   "Yes"
                                          "No"
                                                 "Yes"
                                                                "No"
                                                                       "No"
                                                                              "No"
             "Yes"
                    "No"
                            "No"
                                   "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                      "Yes"
                                                                                            "No"
##
     [6361]
                                          "Yes"
     [6373]
             "No"
                    "Yes"
                           "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "Yes"
##
     [6385]
             "Yes"
                    "No"
                                   "No"
                                                         "No"
                                                                              "No"
##
                            "No"
                                          "No"
                                                 "No"
                                                                "No"
                                                                       "No"
                                                                                      "No"
                                                                                             "No"
     [6397]
             "No"
                    "No"
                            "Yes"
                                   "No"
                                          "No"
                                                 "Yes"
                                                        "No"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                      "Yes"
                                                                                            "No"
##
     [6409]
             "No"
                    "No"
                           "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
##
     [6421]
             "Yes"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "Yes"
                                                                       "No"
                                                                              "No"
                                                                                     "No"
                                                                                             "No"
##
             "No"
                                                        "Yes"
                                                                "Yes"
                                                                       "No"
                                                                              "No"
                                                                                            "No"
     [6433]
                    "No"
                            "Yes"
                                   "No"
                                          "Yes"
                                                 "Yes"
                                                                                      "Yes"
##
             "No"
                    "No"
                            "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "Yes"
                                                                       "No"
                                                                                      "No"
##
     [6445]
                                   "Yes"
                                                                              "No"
                                                                                             "No"
                           "No"
             "No"
                    "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                              "Yes"
                                                                                     "No"
                                                                                             "Yes"
##
     [6457]
                           "No"
                                                         "No"
##
     [6469]
             "No"
                    "Yes"
                                   "No"
                                          "No"
                                                 "No"
                                                                "Yes"
                                                                       "Yes"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
             "No"
                            "No"
                                   "Yes"
                                                 "No"
                                                                "No"
                                                                       "No"
                                                                              "No"
                    "No"
                                          "No"
                                                         "No"
                                                                                      "No"
                                                                                             "Yes"
##
     [6481]
                                   "No"
                                                        "Yes"
                                                                "No"
##
     [6493]
             "No"
                    "No"
                            "Yes"
                                          "No"
                                                 "Yes"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
             "Yes"
                    "No"
                                                                                             "No"
     [6505]
                            "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
##
                    "Yes"
                                                                                            "No"
##
     [6517]
             "Yes"
                            "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "Yes"
                                                                              "No"
                                                                                      "Yes"
                                                 "No"
                                                                       "No"
     [6529] "No"
                    "No"
                            "No"
                                   "No"
                                          "Yes"
                                                         "No"
                                                                "Yes"
                                                                              "No"
                                                                                      "Yes" "No"
##
```

```
[6541] "Yes"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "No"
                                                               "No"
                                                                       "No"
                                                                              "Yes"
                                                                                     "No"
##
                                                         "Yes"
                                                                                             "No"
##
     [6553]
             "No"
                    "No"
                            "Yes"
                                   "No"
                                          "Yes"
                                                 "No"
                                                         "No"
                                                                "Yes"
                                                                       "Yes"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
                            "Yes"
                                                         "No"
                    "No"
                                                                "No"
##
     [6565]
             "No"
                                   "No"
                                          "No"
                                                 "No"
                                                                       "No"
                                                                              "No"
                                                                                      "Yes"
                                                                                            "No"
     [6577]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "Yes"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
##
             "No"
                                          "No"
                                                         "No"
                                                                "No"
                                                                       "No"
##
     [6589]
                    "No"
                           "Yes"
                                   "Yes"
                                                 "No"
                                                                              "No"
                                                                                     "No"
                                                                                             "No"
     [6601]
             "No"
                    "No"
                           "No"
                                   "Yes"
                                          "Yes"
                                                 "Yes"
                                                        "No"
                                                                "Yes"
                                                                       "No"
                                                                              "No"
                                                                                     "Yes"
                                                                                             "No"
##
     [6613]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "Yes"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                              "Yes"
                                                                                     "No"
                                                                                             "No"
##
                                          "Yes"
                                                 "No"
     [6625]
             "No"
                    "No"
                            "No"
                                   "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                              "Yes"
                                                                                     "No"
                                                                                             "No"
##
             "Yes"
                                                                                      "Yes"
##
     [6637]
                    "No"
                            "No"
                                   "Yes"
                                          "No"
                                                 "Yes"
                                                        "No"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                             "No"
                                   "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                             "No"
             "No"
                    "No"
                            "No"
                                          "No"
                                                 "Yes"
                                                                                      "No"
##
     [6649]
##
     [6661]
             "No"
                    "No"
                            "No"
                                   "Yes"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
             "No"
                    "Yes"
                           "No"
                                   "Yes"
                                          "No"
                                                 "No"
                                                         "Yes"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                      "Yes"
                                                                                             "No"
     [6673]
##
             "Yes"
                    "Yes"
                           "No"
                                   "Yes"
                                          "No"
                                                 "No"
                                                         "Yes"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                     "No"
                                                                                             "No"
##
     [6685]
                                                 "No"
                                                                "No"
                    "Yes" "No"
                                   "No"
                                          "No"
                                                         "Yes"
                                                                       "No"
                                                                              "No"
                                                                                     "No"
                                                                                             "Yes"
     [6697]
             "No"
##
                                                         "No"
##
     [6709]
             "Yes"
                    "Yes" "Yes"
                                   "No"
                                          "No"
                                                 "No"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                     "No"
                                                                                             "No"
             "No"
                    "No"
                           "No"
                                                 "No"
                                                         "No"
                                                                       "No"
                                                                                     "Yes"
##
     [6721]
                                   "No"
                                          "Yes"
                                                                "Yes"
                                                                              "Yes"
                                                                                            "No"
##
     [6733]
             "No"
                    "Yes"
                           "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                              "Yes"
                                                                                     "No"
                                                                                             "Yes"
                    "No"
                           "Yes"
                                   "No"
                                                         "No"
                                                                "Yes"
                                                                       "No"
                                                                              "Yes"
                                                                                     "No"
                                                                                             "No"
##
     [6745]
             "No"
                                          "No"
                                                 "No"
                           "No"
     [6757]
             "No"
                    "Yes"
                                   "Yes"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
##
                                                                "No"
             "No"
                                                 "No"
                                                         "Yes"
                                                                                     "No"
     [6769]
                    "No"
                           "No"
                                   "No"
                                                                       "No"
                                                                              "Yes"
##
                                          "Yes"
                                                                                             "No"
     [6781]
##
             "Yes"
                    "No"
                           "Yes"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
     [6793]
             "No"
                    "Yes"
                           "No"
                                   "Yes"
                                          "Yes"
                                                 "No"
                                                         "No"
                                                                "Yes"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "Yes"
##
             "No"
                    "Yes"
                            "Yes"
                                   "No"
                                          "Yes"
                                                 "Yes"
                                                         "Yes"
                                                                "Yes"
                                                                       "No"
                                                                              "No"
                                                                                      "Yes"
                                                                                             "No"
     [6805]
##
     [6817]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "Yes"
                                                         "No"
                                                                "Yes"
                                                                       "Yes"
                                                                              "No"
                                                                                      "Yes"
                                                                                            "No"
##
                                                                                      "Yes" "Yes"
             "No"
                                                                       "No"
                                                                              "No"
     [6829]
                    "No"
                           "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "Yes"
##
             "No"
##
     [6841]
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
             "No"
                                                                                            "No"
##
     [6853]
                    "No"
                            "No"
                                   "Yes"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "Yes"
                                                                       "No"
                                                                              "No"
                                                                                      "Yes"
     [6865]
             "No"
                    "Yes"
                           "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
##
                                   "No"
                                                         "No"
                                                                "Yes"
             "No"
                    "No"
                            "No"
                                          "No"
                                                 "No"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
##
     [6877]
             "Yes"
                    "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                                     "Yes"
                                                                                             "No"
##
     [6889]
                            "No"
                                                                       "No"
                                                                              "No"
                                   "Yes"
                                          "No"
                                                 "No"
                                                         "No"
                                                                       "No"
                                                                                      "No"
             "Yes"
                    "No"
                            "No"
                                                                "Yes"
                                                                              "No"
                                                                                             "Yes"
##
     [6901]
             "No"
                                   "No"
                                                                "No"
##
     [6913]
                    "Yes"
                            "No"
                                          "No"
                                                 "Yes"
                                                        "No"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "Yes"
             "No"
                    "No"
                            "Yes"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "Yes"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
##
     [6925]
     [6937]
             "Yes"
                    "No"
                            "Yes"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "Yes"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
##
             "Yes"
                    "No"
                            "No"
                                                                "No"
                                   "No"
                                          "No"
                                                 "Yes"
                                                        "No"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
##
     [6949]
                                                                                             "No"
##
     [6961]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "Yes"
                                                                       "No"
                                                                              "Yes"
                                                                                     "No"
                                                                                             "No"
                                                         "No"
##
     [6973]
             "No"
                    "No"
                           "Yes"
                                   "No"
                                          "No"
                                                 "No"
                                                                "No"
                                                                       "Yes"
                                                                              "Yes"
                                                                                      "No"
                                                                                             "No"
##
     [6985]
             "No"
                    "No"
                            "No"
                                   "Yes"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "Yes"
                                                                       "Yes"
                                                                              "No"
                                                                                      "No"
                                                                                             "Yes"
             "No"
                                                        "No"
                                                                "No"
                                                                       "No"
                                                                                      "No"
                                                                                             "No"
##
     [6997]
                    "Yes"
                           "No"
                                   "No"
                                          "Yes"
                                                 "Yes"
                                                                              "No"
             "No"
                    "Yes"
                           "No"
                                   "No"
                                                 "No"
                                                         "Yes"
                                                                "Yes"
                                                                       "No"
                                                                              "No"
                                                                                      "Yes"
                                                                                             "No"
##
     [7009]
                                          "No"
     [7021]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "Yes"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
##
             "No"
                    "No"
                            "No"
                                                         "No"
                                                                "No"
                                                                              "No"
##
     [7033]
                                   "No"
                                          "No"
                                                 "No"
                                                                       "No"
                                                                                      "Yes"
                                                                                             "No"
     [7045]
             "No"
                    "Yes"
                           "No"
                                   "No"
                                          "No"
                                                 "Yes"
                                                        "Yes"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
##
     [7057]
             "Yes"
                    "No"
                           "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "Yes"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
##
     [7069]
             "Yes"
                    "Yes"
                           "Yes"
                                   "Yes"
                                          "Yes"
                                                 "No"
                                                         "Yes"
                                                                "Yes"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "Yes"
##
             "No"
                           "No"
                                   "Yes"
                                          "No"
                                                 "No"
                                                         "No"
                                                                                             "No"
     [7081]
                    "Yes"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
##
             "No"
                    "No"
                            "Yes"
                                   "No"
                                          "Yes"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                                      "Yes"
                                                                                            "Yes"
##
     [7093]
                                                                              "No"
                                          "No"
                                                         "No"
                                                                "No"
     [7105]
             "No"
                    "No"
                           "No"
                                   "Yes"
                                                 "No"
                                                                       "No"
                                                                              "No"
                                                                                     "No"
                                                                                             "No"
##
                            "No"
                                   "No"
                                                         "No"
                                                                              "Yes"
##
     [7117]
             "No"
                    "No"
                                          "No"
                                                 "No"
                                                                "No"
                                                                       "Yes"
                                                                                     "Yes"
                                                                                             "No"
             "No"
                           "Yes"
                                          "No"
                                                         "No"
                                                                       "Yes"
                                                                                      "No"
     [7129]
                    "No"
                                   "No"
                                                 "No"
                                                                "No"
                                                                              "No"
                                                                                             "No"
##
                    "No"
                                          "No"
                                                         "No"
                                                                       "Yes" "Yes"
                                                                                     "No"
##
     [7141]
             "Yes"
                            "No"
                                   "Yes"
                                                 "No"
                                                                "No"
                                                                                             "Yes"
                           "No"
                                   "No"
                                                        "No"
                                                                              "Yes"
     [7153]
             "No"
                    "Yes"
                                          "No"
                                                 "Yes"
                                                                "No"
                                                                       "No"
                                                                                     "No"
                                                                                             "No"
##
                                                 "No"
                                                                       "Yes" "No"
##
     [7165]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "Yes"
                                                         "No"
                                                                "No"
                                                                                      "No"
                                                                                             "Yes"
                                                        "No"
     [7177] "Yes" "No"
                            "No"
                                   "No"
                                          "No"
                                                 "Yes"
                                                                "No"
                                                                       "Yes" "No"
                                                                                     "No"
                                                                                             "Yes"
##
```

```
[7189] "No"
                    "No"
                                   "Yes" "No"
                                                  "No"
                                                         "No"
                                                                "No"
                                                                        "Yes" "No"
                                                                                      "No"
##
                            "No"
                                                                                             "Yes"
     [7201]
##
             "Yes"
                    "No"
                            "Yes"
                                   "Yes"
                                          "No"
                                                  "No"
                                                         "No"
                                                                "No"
                                                                        "Yes"
                                                                               "No"
                                                                                      "No"
                                                                                              "No"
                                                         "No"
                                                                "Yes"
##
     [7213] "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                  "No"
                                                                        "No"
                                                                               "No"
                                                                                      "No"
                                                                                              "Yes"
     [7225]
             "No"
                    "No"
                            "No"
                                   "Yes"
                                          "No"
                                                  "No"
                                                         "No"
                                                                "No"
                                                                        "No"
                                                                               "Yes"
                                                                                      "No"
                                                                                              "No"
##
             "No"
                                                                "No"
##
     [7237]
                    "No"
                            "Yes"
                                   "No"
                                          "No"
                                                  "No"
                                                         "No"
                                                                        "No"
                                                                               "No"
                                                                                      "No"
                                                                                              "No"
     [7249]
             "No"
                    "Yes"
                            "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                        "No"
                                                                               "No"
                                                                                      "No"
                                                                                             "No"
##
             "No"
     [7261]
                    "No"
                            "Yes"
                                   "No"
                                          "No"
                                                  "No"
                                                         "No"
                                                                "No"
                                                                        "No"
                                                                               "No"
                                                                                      "No"
                                                                                             "Yes"
##
     [7273]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                  "No"
                                                         "No"
                                                                "No"
                                                                        "Yes"
                                                                               "No"
                                                                                      "Yes"
                                                                                             "Yes"
##
             "No"
                                   "No"
##
     [7285]
                    "Yes"
                            "No"
                                          "Yes"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                        "No"
                                                                               "No"
                                                                                      "No"
                                                                                              "No"
                                   "No"
                                                         "No"
                                                                "No"
                                                                        "No"
                                                                               "No"
             "No"
                    "No"
                            "No"
                                          "No"
                                                  "No"
                                                                                      "No"
                                                                                             "Yes"
##
     [7297]
##
     [7309]
             "Yes"
                    "Yes"
                            "No"
                                   "No"
                                          "No"
                                                  "No"
                                                         "No"
                                                                "No"
                                                                        "No"
                                                                               "No"
                                                                                      "Yes"
                                                                                             "No"
             "No"
                    "No"
                            "Yes"
                                   "No"
                                          "No"
                                                  "No"
                                                         "No"
                                                                "No"
                                                                        "No"
                                                                               "Yes"
                                                                                      "No"
                                                                                              "No"
     [7321]
##
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "Yes"
                                                                "Yes"
                                                                        "No"
                                                                               "Yes"
                                                                                      "No"
##
     [7333]
                                                                                              "No"
                                                 "No"
                                                                        "No"
                    "No"
                            "No"
                                   "Yes"
                                          "Yes"
                                                         "No"
                                                                "Yes"
                                                                               "No"
                                                                                      "Yes"
                                                                                             "Yes"
     [7345]
             "No"
##
                                   "Yes"
##
     [7357]
             "No"
                    "No"
                            "No"
                                          "No"
                                                  "No"
                                                         "No"
                                                                "No"
                                                                        "No"
                                                                               "No"
                                                                                      "No"
                                                                                              "No"
             "No"
                                                         "No"
##
     [7369]
                    "No"
                            "Yes"
                                   "No"
                                          "No"
                                                  "No"
                                                                "No"
                                                                        "No"
                                                                               "No"
                                                                                      "No"
                                                                                              "Yes"
     [7381]
             "No"
                    "No"
                            "No"
                                   "Yes"
                                          "No"
                                                  "No"
                                                         "No"
                                                                "No"
                                                                        "Yes"
                                                                               "No"
                                                                                      "No"
                                                                                              "No"
##
                    "No"
                            "No"
                                   "No"
                                                         "No"
                                                                "Yes"
                                                                       "No"
                                                                                              "Yes"
##
     [7393]
             "No"
                                          "Yes"
                                                 "Yes"
                                                                               "Yes"
                                                                                      "No"
     [7405]
             "No"
                    "Yes"
                            "No"
                                   "No"
                                          "No"
                                                  "No"
                                                         "Yes"
                                                                "Yes"
                                                                        "No"
                                                                               "No"
                                                                                      "No"
                                                                                              "No"
##
                                                 "No"
                                                                "No"
             "Yes"
                    "No"
                            "No"
                                   "Yes"
                                          "Yes"
                                                         "No"
                                                                        "No"
                                                                               "No"
                                                                                      "Yes"
##
     [7417]
                                                                                             "Yes"
##
     [7429]
             "No"
                    "Yes"
                            "No"
                                   "No"
                                          "No"
                                                  "No"
                                                         "Yes"
                                                                "Yes"
                                                                        "No"
                                                                               "No"
                                                                                      "Yes"
                                                                                             "Yes"
     [7441]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                  "Yes"
                                                         "No"
                                                                "No"
                                                                        "No"
                                                                               "No"
                                                                                      "No"
                                                                                              "No"
##
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                  "No"
                                                         "No"
                                                                "No"
                                                                               "No"
                                                                                      "No"
                                                                                             "No"
     [7453]
                                                                        "Yes"
##
     [7465]
             "No"
                    "No"
                            "No"
                                   "Yes"
                                          "No"
                                                  "No"
                                                         "No"
                                                                "No"
                                                                        "No"
                                                                               "No"
                                                                                      "No"
                                                                                              "Yes"
##
             "No"
                                   "No"
                                                         "Yes"
                                                                "No"
                                                                               "No"
                    "No"
                            "No"
                                          "No"
                                                 "No"
                                                                        "No"
                                                                                      "No"
                                                                                              "No"
##
     [7477]
             "No"
##
     [7489]
                    "No"
                            "No"
                                   "Yes"
                                          "No"
                                                  "No"
                                                         "No"
                                                                "No"
                                                                        "No"
                                                                               "Yes"
                                                                                      "No"
                                                                                              "No"
                                                                "Yes"
                                                                               "No"
##
     [7501]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                  "No"
                                                         "No"
                                                                        "No"
                                                                                      "No"
                                                                                              "No"
     [7513]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "Yes"
                                                 "No"
                                                         "Yes"
                                                                "Yes"
                                                                        "No"
                                                                               "Yes"
                                                                                      "No"
                                                                                              "Yes"
##
                                   "No"
                                                         "No"
                                                                               "Yes"
                                                                                      "No"
             "No"
                    "No"
                            "Yes"
                                          "No"
                                                  "Yes"
                                                                "No"
                                                                        "No"
                                                                                             "Yes"
##
     [7525]
                    "Yes"
                            "No"
                                          "No"
                                                  "No"
                                                         "No"
                                                                "No"
                                                                        "No"
                                                                               "Yes"
                                                                                      "No"
                                                                                              "Yes"
##
     [7537]
             "No"
                                   "No"
             "No"
                                   "No"
                                                  "No"
                                                                "No"
                    "No"
                            "No"
                                          "No"
                                                         "No"
                                                                        "No"
                                                                               "No"
                                                                                      "No"
                                                                                              "No"
##
     [7549]
##
     [7561]
             "No"
                    "Yes"
                            "Yes"
                                   "No"
                                          "No"
                                                  "No"
                                                         "No"
                                                                "No"
                                                                        "No"
                                                                               "No"
                                                                                      "Yes"
                                                                                             "No"
             "Yes"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "Yes"
                                                         "No"
                                                                "No"
                                                                        "Yes"
                                                                               "No"
                                                                                      "No"
                                                                                             "No"
##
     [7573]
     [7585]
             "No"
                    "No"
                            "Yes"
                                   "No"
                                          "Yes"
                                                 "Yes"
                                                         "No"
                                                                "No"
                                                                        "No"
                                                                               "Yes"
                                                                                      "Yes"
                                                                                             "No"
##
                            "No"
                                                                "No"
             "No"
                    "No"
                                   "No"
                                          "No"
                                                  "Yes"
                                                         "Yes"
                                                                        "No"
                                                                               "No"
                                                                                      "No"
                                                                                             "No"
##
     [7597]
                    "Yes"
                            "No"
                                                 "No"
##
     [7609]
             "Yes"
                                   "No"
                                          "Yes"
                                                         "No"
                                                                "No"
                                                                        "Yes"
                                                                               "No"
                                                                                      "Yes" "Yes"
                            "Yes"
                                                         "No"
                                                                                      "Yes" "No"
##
     [7621]
             "Yes"
                    "No"
                                   "No"
                                          "No"
                                                  "No"
                                                                "No"
                                                                        "No"
                                                                               "Yes"
##
     [7633]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                  "No"
                                                         "Yes"
                                                                "No"
                                                                        "No"
                                                                               "Yes"
                                                                                      "Yes" "No"
             "No"
                                                                "No"
                                                                               "No"
                                                                                      "No"
                                                                                             "No"
##
     [7645]
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                  "No"
                                                         "No"
                                                                        "Yes"
##
             "No"
                    "No"
                            "Yes"
                                   "No"
                                          "No"
                                                         "No"
                                                                "Yes"
                                                                        "No"
                                                                               "No"
                                                                                      "Yes" "No"
     [7657]
                                                 "No"
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                  "No"
                                                         "No"
                                                                "No"
                                                                        "Yes"
                                                                               "No"
                                                                                      "No"
                                                                                             "Yes"
##
     [7669]
                    "No"
                                   "Yes"
                                                         "No"
                                                                "No"
                                                                               "No"
     [7681]
             "No"
                            "No"
                                          "No"
                                                  "No"
                                                                        "No"
                                                                                      "Yes" "No"
##
     [7693]
             "Yes"
                    "No"
                            "No"
                                   "Yes"
                                          "No"
                                                  "No"
                                                         "No"
                                                                "No"
                                                                        "No"
                                                                               "No"
                                                                                      "No"
                                                                                             "No"
##
     [7705]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "Yes"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                        "No"
                                                                               "No"
                                                                                      "No"
                                                                                             "Yes"
##
     [7717]
             "Yes"
                    "No"
                            "Yes"
                                   "No"
                                          "No"
                                                  "No"
                                                         "No"
                                                                "No"
                                                                        "No"
                                                                               "No"
                                                                                      "Yes" "Yes"
##
             "No"
                            "No"
                                                                "Yes"
                                                                        "Yes"
     [7729]
                    "Yes"
                                   "No"
                                          "No"
                                                  "No"
                                                         "No"
                                                                               "No"
                                                                                      "No"
                                                                                              "Yes"
##
             "No"
                    "No"
                                   "No"
                                          "No"
                                                  "No"
                                                         "No"
                                                                "No"
                                                                        "No"
                                                                                      "No"
                                                                                             "Yes"
##
     [7741]
                            "Yes"
                                                                               "No"
                            "No"
                                          "Yes"
                                                 "No"
                                                                "No"
                                                                                      "Yes" "Yes"
     [7753]
             "Yes"
                    "No"
                                   "No"
                                                         "Yes"
                                                                        "No"
                                                                               "No"
##
             "No"
                                                         "No"
##
     [7765]
                    "No"
                            "No"
                                   "Yes"
                                          "No"
                                                  "No"
                                                                "No"
                                                                        "No"
                                                                               "No"
                                                                                      "Yes"
                                                                                             "No"
             "No"
                            "No"
                                   "No"
                                                         "No"
                                                                                      "No"
     [7777]
                    "No"
                                          "No"
                                                  "No"
                                                                "No"
                                                                        "Yes"
                                                                               "No"
                                                                                              "No"
##
                    "No"
                                   "No"
##
     [7789]
             "Yes"
                            "Yes"
                                          "No"
                                                  "No"
                                                         "No"
                                                                "No"
                                                                        "No"
                                                                               "No"
                                                                                      "No"
                                                                                              "No"
                            "No"
                                   "Yes" "No"
                                                         "No"
             "No"
                    "Yes"
                                                  "Yes"
                                                                "No"
                                                                        "No"
                                                                               "No"
                                                                                      "No"
                                                                                              "No"
##
     [7801]
                                   "Yes"
##
     [7813]
             "No"
                    "No"
                            "No"
                                          "No"
                                                  "No"
                                                         "No"
                                                                "No"
                                                                        "No"
                                                                               "No"
                                                                                      "No"
                                                                                              "No"
                                                                "No"
     [7825]
             "Yes" "No"
                            "Yes" "Yes" "No"
                                                  "No"
                                                         "No"
                                                                        "No"
                                                                               "Yes"
                                                                                      "No"
                                                                                              "No"
##
```

```
[7837] "Yes" "No"
                           "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "Yes" "No"
##
                                                                                      "Yes" "No"
                                                                "Yes"
##
     [7849]
             "No"
                    "No"
                            "Yes"
                                   "Yes"
                                          "Yes"
                                                 "No"
                                                         "Yes"
                                                                       "Yes"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
                                                         "No"
                                                                "No"
                                                                              "No"
                                                                                             "No"
##
     Г7861]
            "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "No"
                                                                       "No"
                                                                                      "No"
     [7873]
             "Yes"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "Yes"
                                                                              "No"
                                                                                      "Yes" "No"
##
             "No"
                                                                "No"
##
     [7885]
                    "Yes"
                           "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "Yes"
     [7897]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                     "Yes" "No"
##
     [7909]
             "Yes"
                    "Yes"
                           "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "Yes"
                                                                       "No"
                                                                              "No"
                                                                                     "Yes" "Yes"
##
     [7921]
             "No"
                    "No"
                                   "No"
                                                 "No"
                                                                       "No"
                                                                                             "No"
                            "No"
                                          "Yes"
                                                         "No"
                                                                "Yes"
                                                                              "No"
                                                                                      "No"
##
##
     [7933]
             "Yes"
                    "Yes"
                           "Yes"
                                   "No"
                                          "No"
                                                 "Yes"
                                                        "No"
                                                                "Yes"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "Yes"
                                                 "Yes"
                                                                              "No"
                                                                                             "No"
     [7945]
             "No"
                    "No"
                            "Yes"
                                   "No"
                                          "Yes"
                                                         "No"
                                                                "Yes"
                                                                       "No"
                                                                                      "No"
##
##
     [7957]
             "Yes"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "Yes"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "Yes"
                                                        "No"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                      "Yes"
                                                                                             "No"
     [7969]
##
             "No"
                    "No"
                           "No"
                                   "No"
                                          "Yes"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                     "No"
                                                                                             "No"
##
     [7981]
                                                                "No"
                            "No"
                    "No"
                                   "No"
                                          "Yes"
                                                 "No"
                                                         "Yes"
                                                                              "No"
                                                                                      "No"
     [7993]
             "No"
                                                                       "No"
                                                                                             "No"
##
                                                                "No"
##
     [8005]
             "No"
                    "Yes"
                           "Yes"
                                   "No"
                                          "No"
                                                 "Yes"
                                                        "Yes"
                                                                       "No"
                                                                              "Yes"
                                                                                     "No"
                                                                                             "No"
             "No"
                    "No"
                                                 "No"
                                                         "Yes"
                                                                "No"
##
     [8017]
                            "No"
                                   "No"
                                          "No"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "Yes"
##
     [8029]
             "Yes"
                    "Yes"
                           "No"
                                   "No"
                                          "No"
                                                 "Yes"
                                                        "No"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "Yes"
                    "No"
                            "No"
                                          "No"
                                                 "Yes"
                                                        "No"
                                                                "No"
                                                                                      "Yes"
                                                                                            "No"
##
     [8041]
             "No"
                                   "No"
                                                                       "No"
                                                                              "No"
     [8053]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "Yes"
                                                 "Yes"
                                                        "No"
                                                                "No"
                                                                       "Yes"
                                                                              "No"
                                                                                      "No"
                                                                                             "Yes"
##
                                                                "No"
                                                         "Yes"
                                                                       "No"
                                                                              "No"
                                                                                             "No"
             "No"
                    "No"
                            "No"
                                   "Yes"
                                          "Yes"
                                                 "No"
                                                                                      "No"
##
     [8065]
##
     [8077]
             "Yes"
                    "No"
                            "Yes"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                      "Yes"
                                                                                             "No"
##
     [8089]
            "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "Yes"
                                                        "Yes"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
             "No"
                    "No"
                            "Yes"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "Yes"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
     [8101]
##
                                                                "No"
     [8113]
             "No"
                    "No"
                            "Yes"
                                   "Yes"
                                          "No"
                                                 "No"
                                                         "Yes"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "Yes"
##
                                                                                            "No"
                           "Yes"
                                   "Yes"
                                                                "Yes"
                                                                                      "Yes"
             "No"
                    "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                       "No"
                                                                              "No"
##
     [8125]
             "No"
##
     [8137]
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "Yes"
                                                                "No"
                                                                       "Yes"
                                                                              "Yes"
                                                                                     "No"
                                                                                             "No"
                                          "No"
                                                                                      "Yes"
##
     [8149]
             "No"
                    "No"
                            "No"
                                   "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                             "No"
     [8161]
             "Yes"
                    "No"
                            "No"
                                   "No"
                                          "Yes"
                                                 "No"
                                                         "Yes"
                                                                "Yes"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
##
                                   "Yes"
                                          "No"
                                                        "No"
                                                                "No"
     [8173]
             "No"
                    "No"
                            "No"
                                                 "Yes"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
##
            "No"
                            "Yes"
                                   "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                              "Yes"
                                                                                     "No"
                                                                                             "No"
##
     [8185]
                    "No"
                                          "No"
                                                                       "No"
                            "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "Yes"
                                                                       "No"
                                                                              "No"
             "No"
                    "No"
                                   "Yes"
                                                                                             "No"
##
     [8197]
                                                                                      "No"
##
     [8209]
             "Yes"
                    "No"
                            "No"
                                   "No"
                                          "Yes"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "Yes"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
            "No"
                    "No"
                            "No"
                                   "No"
                                          "Yes"
                                                 "No"
                                                         "Yes"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                      "Yes"
                                                                                            "No"
##
     [8221]
                                                         "Yes"
     [8233]
             "No"
                    "No"
                            "No"
                                   "Yes"
                                          "No"
                                                 "No"
                                                                "Yes"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
##
             "No"
                           "Yes"
                                                        "No"
                                                                "No"
                    "Yes"
                                   "No"
                                          "No"
                                                 "Yes"
                                                                       "Yes"
                                                                              "No"
                                                                                     "Yes" "Yes"
##
     [8245]
##
     [8257]
             "No"
                    "No"
                            "No"
                                   "Yes"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                     "Yes" "No"
                                  "No"
                                                 "No"
                                                         "No"
##
     [8269]
             "No"
                    "No"
                           "Yes"
                                          "No"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                     "Yes" "Yes"
##
     [8281]
             "No"
                    "No"
                            "Yes"
                                   "No"
                                          "Yes"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "Yes"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
             "No"
                           "No"
                                                                "Yes"
                                                                       "No"
                                                                                      "No"
                                                                                             "No"
##
     [8293]
                    "Yes"
                                   "No"
                                          "Yes"
                                                 "No"
                                                         "Yes"
                                                                              "No"
             "No"
                    "No"
                           "Yes"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "Yes"
                                                                              "Yes"
                                                                                     "Yes"
                                                                                             "No"
##
     [8305]
     [8317]
             "No"
                    "Yes"
                           "No"
                                   "No"
                                          "Yes"
                                                 "No"
                                                         "No"
                                                                "Yes"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
##
             "No"
                    "No"
                           "No"
                                   "No"
                                                         "No"
                                                                       "No"
                                                                              "No"
##
     [8329]
                                          "No"
                                                 "No"
                                                                "No"
                                                                                      "No"
                                                                                             "No"
     [8341]
             "Yes"
                    "No"
                           "No"
                                   "Yes"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
##
             "No"
                    "Yes"
                           "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "Yes"
                                                                              "Yes"
                                                                                     "No"
                                                                                             "Yes"
##
     [8353]
     [8365]
             "No"
                    "No"
                           "No"
                                   "Yes"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                              "Yes"
                                                                                     "No"
                                                                                             "No"
##
             "No"
                           "No"
                                   "Yes"
                                          "Yes"
                                                 "No"
                                                         "No"
                                                                              "No"
     [8377]
                    "Yes"
                                                                "Yes"
                                                                       "No"
                                                                                      "No"
                                                                                             "No"
##
             "No"
                    "Yes"
                           "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
##
     [8389]
                                   "No"
                                          "No"
                                                        "Yes"
                                                                "No"
                                                                                             "No"
     [8401]
             "No"
                    "No"
                           "No"
                                                 "Yes"
                                                                       "No"
                                                                              "No"
                                                                                     "Yes"
##
                                                        "No"
                                                                "Yes"
                                                                              "Yes"
##
     [8413]
             "No"
                    "No"
                           "No"
                                   "Yes"
                                          "No"
                                                 "Yes"
                                                                       "Yes"
                                                                                     "No"
                                                                                             "Yes"
             "No"
                                   "No"
                                                         "Yes"
                                                                       "No"
     [8425]
                    "No"
                           "No"
                                          "Yes"
                                                 "No"
                                                                "No"
                                                                              "Yes"
                                                                                     "No"
                                                                                             "No"
##
                                          "Yes"
                                                         "Yes"
                                                                "No"
                                                                       "Yes"
                                                                              "Yes"
                                                                                     "No"
##
     [8437]
             "No"
                    "No"
                           "No"
                                   "No"
                                                 "No"
                                                                                             "No"
                           "Yes"
                                   "Yes"
                                          "No"
                                                         "No"
                                                                "Yes"
                                                                       "No"
             "No"
                    "No"
                                                 "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
##
     [8449]
                           "No"
##
     [8461]
             "No"
                    "Yes"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "Yes"
                                                                              "Yes"
                                                                                     "No"
                                                                                             "No"
            "No"
                    "Yes" "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                     "No"
                                                                                             "No"
##
     [8473]
```

```
[8485] "No"
                    "No"
                           "Yes" "No"
                                          "Yes" "No"
                                                         "No"
                                                                "No"
                                                                       "Yes"
                                                                              "No"
                                                                                      "No"
##
                                                                                             "No"
     [8497]
##
             "Yes"
                    "Yes"
                           "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "Yes"
                                                                       "No"
                                                                              "Yes"
                                                                                     "No"
                                                                                             "No"
                    "Yes"
                                                         "No"
     [8509] "Yes"
                           "No"
                                                                "No"
                                                                                             "No"
##
                                   "No"
                                          "No"
                                                 "No"
                                                                       "No"
                                                                              "Yes"
                                                                                     "No"
     [8521]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                              "Yes"
                                                                                      "No"
                                                                                             "No"
##
             "No"
                    "No"
                                                         "No"
                                                                "No"
##
     [8533]
                            "No"
                                   "No"
                                          "Yes"
                                                 "No"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "Yes"
                                                 "Yes"
     [8545]
             "No"
                    "No"
                           "No"
                                   "No"
                                          "No"
                                                        "No"
                                                                "Yes"
                                                                       "Yes"
                                                                              "No"
                                                                                      "Yes" "Yes"
##
     [8557]
             "No"
                    "Yes"
                           "Yes"
                                   "Yes"
                                          "Yes"
                                                 "Yes"
                                                         "No"
                                                                "No"
                                                                       "Yes"
                                                                              "Yes"
                                                                                     "Yes"
                                                                                             "Yes"
##
     [8569]
                           "No"
                                                                       "No"
                                                                                      "No"
             "Yes"
                    "Yes"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                              "No"
                                                                                             "No"
##
                                   "Yes"
##
     [8581]
             "Yes"
                    "No"
                            "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "Yes"
                                                                       "No"
                                                                              "Yes"
                                                                                     "No"
                                                                                             "No"
                           "Yes"
                                                         "No"
                                                                "Yes"
                                                                              "Yes"
                                                                                      "No"
     [8593]
             "No"
                    "No"
                                   "No"
                                          "No"
                                                 "No"
                                                                       "No"
                                                                                             "No"
##
##
     [8605]
             "No"
                    "Yes"
                           "No"
                                   "Yes"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "Yes"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "Yes"
             "No"
                    "No"
                            "Yes"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                              "Yes"
                                                                                      "No"
                                                                                             "No"
     [8617]
##
             "Yes"
                    "No"
                            "No"
                                   "Yes"
                                          "No"
                                                 "Yes"
                                                        "Yes"
                                                                "No"
                                                                       "Yes"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
##
     [8629]
                    "No"
                                          "No"
                                                        "No"
                                                                "No"
                                                                       "No"
                            "No"
                                   "No"
                                                 "Yes"
                                                                              "No"
                                                                                      "Yes"
                                                                                             "Yes"
     [8641]
             "No"
##
                                                                       "No"
##
     [8653]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "Yes"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
             "No"
                            "Yes"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "No"
##
     [8665]
                    "No"
                                   "No"
                                          "No"
                                                                              "No"
                                                                                      "Yes"
                                                                                            "No"
##
     [8677]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "Yes"
                                                                "Yes"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
                    "No"
                            "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                                     "No"
                                                                                             "No"
##
     [8689]
             "No"
                                   "No"
                                          "No"
                                                 "No"
                                                                              "Yes"
     [8701]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "Yes"
                                                                              "Yes"
                                                                                      "Yes"
                                                                                             "Yes"
##
                                                                "Yes"
                                                                                      "No"
                                                 "No"
                                                         "Yes"
                                                                                             "No"
             "No"
                    "No"
                            "Yes"
                                   "No"
                                                                       "No"
                                                                              "No"
##
     [8713]
                                          "No"
##
     [8725]
             "No"
                    "No"
                           "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "Yes"
                                                                "Yes"
                                                                       "No"
                                                                              "Yes"
                                                                                     "Yes"
                                                                                             "No"
##
     [8737]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "Yes"
                                                 "No"
                                                         "No"
                                                                "Yes"
                                                                       "Yes"
                                                                              "No"
                                                                                      "No"
                                                                                             "Yes"
             "Yes"
                    "No"
                            "No"
                                   "No"
                                          "Yes"
                                                 "No"
                                                         "No"
                                                                "Yes"
                                                                       "Yes"
                                                                              "Yes"
                                                                                      "No"
                                                                                             "Yes"
     [8749]
##
     [8761]
             "No"
                    "Yes"
                           "Yes"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "Yes"
##
                                                                                             "No"
                                                                              "No"
     [8773]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "Yes"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                                      "Yes"
##
             "Yes"
##
     [8785]
                    "Yes"
                           "No"
                                   "Yes"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "Yes"
                                                 "No"
                                                         "No"
                                                                                      "No"
##
     [8797]
             "No"
                    "No"
                            "No"
                                   "Yes"
                                          "No"
                                                                "No"
                                                                       "No"
                                                                              "Yes"
                                                                                             "No"
     [8809]
             "No"
                    "No"
                            "No"
                                   "Yes"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "Yes"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "Yes"
##
                                   "Yes"
                                          "No"
                                                         "No"
                                                                              "No"
             "No"
                    "No"
                            "No"
                                                 "No"
                                                                "No"
                                                                       "Yes"
                                                                                      "No"
                                                                                             "No"
##
     [8821]
             "No"
                           "No"
                                   "No"
                                          "No"
                                                 "Yes"
                                                        "No"
                                                                "No"
                                                                       "No"
                                                                              "Yes"
                                                                                      "No"
                                                                                             "No"
##
     [8833]
                    "Yes"
             "No"
                                          "No"
                                                        "No"
                                                                "No"
                                                                                      "Yes"
                    "No"
                                   "No"
                                                 "Yes"
                                                                       "No"
                                                                              "No"
                                                                                             "No"
##
     [8845]
                            "No"
##
     [8857]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "Yes"
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
##
     [8869]
     [8881]
             "No"
                    "No"
                            "Yes"
                                   "Yes"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "Yes"
                                                                       "No"
                                                                              "Yes"
                                                                                      "No"
                                                                                             "No"
##
             "No"
                    "No"
                            "Yes"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "Yes"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
##
     [8893]
                                                                              "Yes"
##
     [8905]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "Yes"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "Yes"
                                                                                      "No"
                                                                                             "Yes"
##
     [8917]
             "No"
                    "Yes"
                           "No"
                                   "Yes"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "Yes"
                                                                       "No"
                                                                              "Yes"
                                                                                      "Yes"
                                                                                             "No"
##
     [8929]
             "No"
                    "Yes"
                            "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
             "Yes"
                    "No"
                                                                "No"
                                                                              "No"
                                                                                             "No"
##
     [8941]
                            "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                       "Yes"
                                                                                      "No"
             "No"
                    "No"
                            "No"
                                   "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                      "Yes" "Yes"
##
     [8953]
                                          "Yes"
             "No"
     [8965]
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                      "Yes" "Yes"
##
             "No"
                    "No"
                                   "No"
                                                        "No"
                                                                              "No"
                                                                                      "Yes" "No"
##
     [8977]
                            "No"
                                          "No"
                                                 "Yes"
                                                                "Yes"
                                                                       "No"
     [8989]
             "Yes"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "Yes"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                              "Yes"
                                                                                      "No"
                                                                                             "No"
##
     [9001]
             "No"
                    "No"
                            "Yes"
                                   "No"
                                          "Yes"
                                                 "No"
                                                         "No"
                                                                "Yes"
                                                                       "Yes"
                                                                              "Yes"
                                                                                      "No"
                                                                                             "No"
##
     [9013]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "Yes"
                                                                              "No"
                                                                                      "Yes"
                                                                                            "No"
##
             "No"
                                                         "No"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
     [9025]
                    "No"
                            "Yes"
                                   "No"
                                          "No"
                                                 "No"
                                                                "No"
                                                                                             "No"
##
             "No"
                    "No"
                            "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "Yes"
                                                                       "Yes"
                                                                              "No"
                                                                                      "Yes" "Yes"
##
     [9037]
                                   "No"
                                                 "No"
                                                         "Yes"
                                                                "Yes"
                                                                       "Yes"
     [9049]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "Yes"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
##
                                                         "Yes"
                                                                "No"
                                                                       "No"
##
     [9061]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "No"
                                                                              "Yes"
                                                                                      "No"
                                                                                             "No"
             "No"
                                   "No"
                                                                "Yes"
                                                                              "No"
     [9073]
                    "No"
                            "No"
                                          "No"
                                                 "Yes"
                                                        "No"
                                                                       "Yes"
                                                                                      "No"
                                                                                             "No"
##
                                                                "No"
                                                                       "Yes"
##
     [9085]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
             "Yes"
                                                 "Yes"
                                                        "No"
                                                                "Yes"
                                                                       "No"
                                                                                             "Yes"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                                              "No"
                                                                                      "Yes"
##
     [9097]
                                                 "Yes"
##
     [9109]
             "No"
                    "No"
                            "Yes"
                                   "No"
                                          "Yes"
                                                        "No"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                              "No"
                                                                                      "No"
                                                                                             "No"
##
     [9121]
```

```
[9133] "No"
                    "No"
                            "No"
                                   "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                               "No"
                                                                                      "No"
##
                                          "No"
                                                                                             "No"
##
     [9145]
             "Yes"
                    "No"
                            "Yes"
                                   "No"
                                          "No"
                                                  "Yes"
                                                         "No"
                                                                "Yes"
                                                                       "Yes"
                                                                               "No"
                                                                                      "No"
                                                                                             "No"
                                                         "No"
                            "Yes"
                                                                "No"
                                                                                             "No"
##
     [9157] "No"
                    "Yes"
                                   "No"
                                          "No"
                                                  "No"
                                                                       "No"
                                                                               "No"
                                                                                      "No"
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                  "No"
                                                         "Yes"
                                                                "No"
                                                                       "No"
                                                                               "No"
                                                                                      "Yes"
                                                                                             "No"
##
     [9169]
             "No"
                                                         "No"
                                                                "No"
##
     [9181]
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                  "Yes"
                                                                       "No"
                                                                               "No"
                                                                                      "No"
                                                                                             "Yes"
     [9193]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "Yes"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                               "No"
                                                                                      "Yes" "Yes"
##
     [9205]
             "No"
                    "Yes"
                            "No"
                                   "No"
                                          "No"
                                                  "Yes"
                                                         "Yes"
                                                                "No"
                                                                       "Yes"
                                                                               "No"
                                                                                      "Yes"
                                                                                             "No"
##
                                   "No"
                                                         "No"
     [9217]
             "No"
                    "No"
                            "No"
                                          "Yes"
                                                 "No"
                                                                "No"
                                                                       "No"
                                                                               "No"
                                                                                      "No"
                                                                                             "Yes"
##
                    "Yes"
##
     [9229]
             "No"
                            "Yes"
                                   "Yes"
                                          "Yes"
                                                 "No"
                                                         "Yes"
                                                                "Yes"
                                                                       "No"
                                                                               "No"
                                                                                      "No"
                                                                                             "No"
                                                         "No"
                                                                       "No"
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                  "No"
                                                                "No"
                                                                               "No"
                                                                                      "No"
                                                                                             "No"
##
     [9241]
##
     [9253]
             "No"
                    "No"
                            "No"
                                   "Yes"
                                          "No"
                                                  "Yes"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                               "No"
                                                                                      "No"
                                                                                             "No"
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                  "Yes"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                               "No"
                                                                                      "Yes" "No"
     [9265]
##
             "No"
                    "Yes"
                            "Yes"
                                  "Yes"
                                          "No"
                                                  "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                               "No"
                                                                                      "Yes" "No"
##
     [9277]
                                  "Yes"
                    "No"
                                                         "Yes"
                                                                "No"
                            "Yes"
                                          "No"
                                                 "Yes"
                                                                               "No"
                                                                                             "No"
     [9289]
             "No"
                                                                       "No"
                                                                                      "No"
##
                            "Yes"
                                                         "No"
                                                                "Yes"
##
     [9301]
             "No"
                    "No"
                                   "No"
                                          "No"
                                                  "No"
                                                                       "No"
                                                                               "No"
                                                                                      "Yes" "No"
             "No"
                            "No"
                                   "No"
                                                 "No"
                                                         "Yes"
                                                                "No"
                                                                                      "Yes" "No"
##
     [9313]
                    "Yes"
                                          "Yes"
                                                                       "No"
                                                                               "No"
##
     [9325]
             "Yes"
                    "No"
                            "Yes"
                                   "No"
                                          "Yes"
                                                 "No"
                                                         "No"
                                                                "Yes"
                                                                       "No"
                                                                               "No"
                                                                                      "No"
                                                                                             "No"
                            "Yes"
                                   "No"
                                                         "Yes"
                                                                "No"
                                                                                      "Yes" "No"
##
     [9337]
             "No"
                    "No"
                                          "No"
                                                 "No"
                                                                       "No"
                                                                               "No"
     [9349]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                  "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                               "Yes"
                                                                                      "No"
                                                                                             "No"
##
                                                 "No"
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                         "No"
                                                                "No"
                                                                               "No"
                                                                                      "No"
##
     Г9361]
                                                                       "Yes"
                                                                                             "Yes"
     [9373]
##
             "No"
                    "No"
                            "Yes"
                                  "Yes"
                                          "No"
                                                 "Yes"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                               "No"
                                                                                      "No"
                                                                                             "No"
     [9385]
             "No"
                    "No"
                            "Yes"
                                   "No"
                                          "No"
                                                  "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                               "No"
                                                                                      "No"
                                                                                             "Yes"
##
             "No"
                    "No"
                            "No"
                                   "No"
                                          "Yes"
                                                  "No"
                                                         "Yes"
                                                                "No"
                                                                       "No"
                                                                               "No"
                                                                                      "No"
                                                                                             "Yes"
     [9397]
##
     [9409]
             "No"
                    "No"
                            "Yes" "No"
                                          "No"
                                                  "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                               "No"
                                                                                      "No"
                                                                                             "No"
##
             "No"
                            "Yes"
                                   "No"
                                                                "No"
                                                                               "No"
                    "No"
                                          "No"
                                                 "No"
                                                         "Yes"
                                                                       "No"
                                                                                      "No"
                                                                                             "No"
##
     [9421]
             "No"
##
     [9433]
                    "No"
                            "No"
                                   "Yes"
                                          "No"
                                                  "No"
                                                         "Yes"
                                                                "No"
                                                                       "No"
                                                                               "Yes"
                                                                                      "No"
                                                                                             "No"
                                          "No"
                                                         "No"
                                                                "No"
                                                                                      "Yes"
##
     [9445]
             "No"
                    "No"
                            "Yes"
                                   "No"
                                                  "No"
                                                                       "No"
                                                                               "Yes"
                                                                                             "No"
             "No"
                    "No"
                            "Yes"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                               "Yes"
                                                                                      "No"
                                                                                             "No"
##
     [9457]
                                          "Yes"
                                                 "No"
                                                         "No"
                                                                               "Yes"
                                                                                      "No"
             "No"
                    "No"
                            "No"
                                   "Yes"
                                                                "No"
                                                                       "No"
                                                                                             "Yes"
##
     [9469]
             "No"
                            "No"
                                   "No"
                                          "No"
                                                         "No"
                                                                "No"
                                                                               "No"
                                                                                      "No"
                                                                                             "No"
##
     [9481]
                    "Yes"
                                                  "No"
                                                                       "No"
             "No"
                    "No"
                                                 "No"
                                                         "No"
                                                                "Yes"
                                                                       "No"
                                                                               "No"
                            "No"
                                   "No"
                                          "Yes"
                                                                                      "No"
                                                                                             "Yes"
##
     [9493]
##
     [9505]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "Yes"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                               "No"
                                                                                      "No"
                                                                                             "No"
             "No"
                    "Yes"
                           "No"
                                   "No"
                                          "Yes"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                               "No"
                                                                                      "No"
                                                                                             "Yes"
##
     [9517]
     [9529]
             "No"
                    "Yes"
                            "No"
                                   "Yes"
                                          "No"
                                                  "No"
                                                         "Yes"
                                                                "Yes"
                                                                       "No"
                                                                               "No"
                                                                                      "No"
                                                                                             "No"
##
                                                         "No"
                                                                "No"
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                  "Yes"
                                                                       "No"
                                                                                      "Yes"
##
     [9541]
                                                                               "Yes"
                                                                                             "No"
##
     [9553]
             "No"
                    "Yes"
                            "No"
                                   "Yes"
                                          "No"
                                                  "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                               "No"
                                                                                      "No"
                                                                                             "Yes"
                                                         "No"
##
     [9565]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "No"
                                                                "Yes"
                                                                       "No"
                                                                               "No"
                                                                                      "No"
                                                                                             "No"
##
     [9577]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                  "No"
                                                         "Yes"
                                                                "No"
                                                                       "No"
                                                                               "Yes"
                                                                                      "No"
                                                                                             "Yes"
             "No"
                                                         "No"
                                                                "No"
                                                                                      "No"
                                                                                             "No"
##
     [9589]
                    "Yes"
                            "No"
                                   "No"
                                          "No"
                                                 "No"
                                                                       "No"
                                                                               "No"
##
             "Yes"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "Yes"
                                                                "No"
                                                                       "Yes"
                                                                               "No"
                                                                                      "Yes"
                                                                                             "No"
     [9601]
             "No"
                    "No"
                            "Yes"
                                   "No"
                                          "No"
                                                  "Yes"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                               "Yes"
                                                                                      "No"
                                                                                             "No"
##
     [9613]
     [9625]
             "No"
                    "No"
                            "No"
                                                         "No"
                                                                               "No"
                                   "No"
                                          "Yes"
                                                 "No"
                                                                "No"
                                                                       "No"
                                                                                      "No"
                                                                                             "No"
##
     [9637]
             "Yes"
                    "No"
                            "No"
                                   "Yes"
                                          "No"
                                                  "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                               "No"
                                                                                      "No"
                                                                                             "No"
##
     [9649]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                               "No"
                                                                                      "No"
                                                                                             "No"
##
             "No"
                    "No"
                            "Yes"
                                   "Yes"
                                          "Yes"
                                                 "Yes"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                               "Yes"
                                                                                      "Yes"
                                                                                             "No"
##
     [9661]
             "Yes"
                    "No"
                                          "Yes"
                                                 "No"
                                                                               "No"
     [9673]
                            "No"
                                   "Yes"
                                                         "No"
                                                                "No"
                                                                       "Yes"
                                                                                      "No"
                                                                                             "No"
##
             "Yes"
                    "No"
                            "No"
                                   "No"
                                          "No"
                                                  "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                                      "No"
                                                                                             "No"
##
     [9685]
                                                                               "No"
                                          "No"
                                                                "No"
     [9697]
             "No"
                    "No"
                            "No"
                                   "Yes"
                                                 "No"
                                                         "No"
                                                                       "No"
                                                                               "No"
                                                                                      "No"
                                                                                             "No"
##
                                   "No"
                                                         "No"
##
     [9709]
             "No"
                    "No"
                            "Yes"
                                          "No"
                                                  "No"
                                                                "Yes"
                                                                       "No"
                                                                               "No"
                                                                                      "Yes"
                                                                                             "No"
                                                 "No"
                                                         "No"
                                                                "No"
                                                                                      "No"
     [9721]
             "No"
                    "No"
                            "No"
                                   "Yes"
                                          "No"
                                                                       "No"
                                                                               "No"
                                                                                             "No"
##
                            "Yes" "No"
                                                         "No"
##
     [9733]
             "No"
                    "No"
                                          "No"
                                                  "Yes"
                                                                "No"
                                                                       "No"
                                                                               "Yes"
                                                                                      "No"
                                                                                             "No"
                                                 "No"
     [9745]
             "No"
                    "No"
                            "No"
                                   "No"
                                          "Yes"
                                                         "No"
                                                                "No"
                                                                       "Yes"
                                                                               "No"
                                                                                      "No"
                                                                                             "No"
##
                            "Yes" "No"
##
     [9757]
             "No"
                    "No"
                                          "No"
                                                  "No"
                                                         "No"
                                                                "No"
                                                                       "No"
                                                                               "No"
                                                                                      "No"
                                                                                             "Yes"
                                                 "No"
     [9769]
             "No"
                    "No"
                            "Yes" "No"
                                          "Yes"
                                                         "No"
                                                                "Yes"
                                                                       "No"
                                                                               "No"
                                                                                      "Yes" "No"
##
```

```
##
     [9781] "No"
                    "No"
                           "No"
                                  "No"
                                         "No"
                                                "Yes" "No"
                                                               "Yes"
                                                                      "No"
                                                                             "Yes" "No"
                                                                                            "No"
##
    [9793]
             "No"
                    "No"
                           "No"
                                  "No"
                                         "No"
                                                "No"
                                                        "No"
                                                               "No"
                                                                      "No"
                                                                             "Yes"
                                                                                    "No"
                                                                                           "Yes"
                                                "Yes"
##
    [9805]
             "No"
                    "No"
                           "No"
                                  "No"
                                         "No"
                                                       "Yes"
                                                               "No"
                                                                      "No"
                                                                             "No"
                                                                                     "No"
                                                                                            "Yes"
             "No"
                    "No"
                           "No"
                                  "No"
                                         "Yes"
                                                "No"
                                                        "No"
                                                                             "No"
    [9817]
                                                               "No"
                                                                      "No"
                                                                                     "No"
                                                                                            "No"
##
##
     [9829]
             "No"
                    "Yes"
                           "Yes"
                                  "No"
                                         "No"
                                                "Yes"
                                                        "No"
                                                               "No"
                                                                      "No"
                                                                             "No"
                                                                                     "No"
                                                                                            "No"
             "No"
                    "No"
                           "No"
                                  "Yes"
                                         "No"
                                                "Yes"
                                                       "No"
                                                               "No"
                                                                      "Yes"
                                                                             "Yes"
                                                                                    "No"
                                                                                            "No"
##
     [9841]
                           "No"
                                  "Yes"
                                         "No"
                                                "No"
                                                        "No"
                                                               "No"
                                                                             "No"
                                                                                     "No"
                                                                                            "No"
##
     [9853]
             "No"
                    "No"
                                                                      "No"
             "No"
                                  "No"
                                                 "Yes"
                                                        "Yes"
                                                               "Yes"
                                                                             "No"
                                                                                     "Yes"
##
     [9865]
                    "No"
                           "No"
                                          "No"
                                                                      "Yes"
                                                                                            "No"
             "Yes"
##
     [9877]
                    "No"
                           "Yes"
                                  "No"
                                          "Yes"
                                                "No"
                                                        "No"
                                                               "Yes"
                                                                      "No"
                                                                             "No"
                                                                                     "No"
                                                                                            "No"
             "No"
                    "No"
                           "No"
                                  "Yes" "Yes"
                                                "No"
                                                        "No"
                                                               "No"
                                                                      "No"
                                                                             "No"
                                                                                    "No"
                                                                                            "No"
##
    [9889]
##
     [9901]
             "No"
                    "No"
                           "No"
                                  "No"
                                         "Yes"
                                                "No"
                                                        "No"
                                                               "No"
                                                                      "No"
                                                                             "Yes"
                                                                                    "No"
                                                                                            "No"
             "No"
                    "Yes"
                           "No"
                                  "No"
                                         "No"
                                                "No"
                                                        "Yes"
                                                               "No"
                                                                      "Yes"
                                                                             "No"
                                                                                     "No"
                                                                                            "No"
##
    [9913]
             "No"
                                         "No"
                                                        "No"
                                                               "No"
##
     [9925]
                    "No"
                           "No"
                                  "No"
                                                "No"
                                                                      "No"
                                                                             "No"
                                                                                    "No"
                                                                                           "No"
                                                        "No"
             "No"
                                                               "Yes"
                    "No"
                           "No"
                                  "No"
                                         "No"
                                                "Yes"
                                                                      "No"
                                                                             "No"
                                                                                    "Yes" "No"
##
    [9937]
##
    [9949]
             "No"
                    "No"
                           "No"
                                  "Yes"
                                         "No"
                                                "No"
                                                        "Yes"
                                                               "No"
                                                                      "No"
                                                                             "No"
                                                                                    "Yes"
                                                                                           "No"
##
     [9961]
             "No"
                    "No"
                           "No"
                                  "No"
                                          "No"
                                                "No"
                                                        "No"
                                                               "Yes"
                                                                      "No"
                                                                             "No"
                                                                                    "Yes" "No"
             "No"
                    "No"
                           "No"
                                  "No"
                                         "No"
                                                "No"
                                                        "Yes"
                                                               "Yes"
                                                                     "No"
                                                                             "No"
                                                                                    "Yes" "No"
##
     [9973]
##
    [9985]
             "No"
                    "No"
                           "Yes" "Yes"
                                         "Yes"
                                                "No"
                                                        "No"
                                                               "Yes" "No"
                                                                             "No"
                                                                                    "No"
                                                                                           "No"
                                  "Yes"
     [9997] "Yes"
                    "No"
                           "Yes"
##
```

What is the proportion of times that the null hypothesis is rejected? (This proportion, interpreted as a probability, is the *power* of the test.)

Answer:approximately 7567 times is is becoming false and 2400 times true

7. Repeat the computations in Question 6 for each of these values of  $\mu_2$ : 0, 0.1, 0.2, 0.3, ..., 10. Plot the resulting power curve (power vs.  $\mu_2$ ).

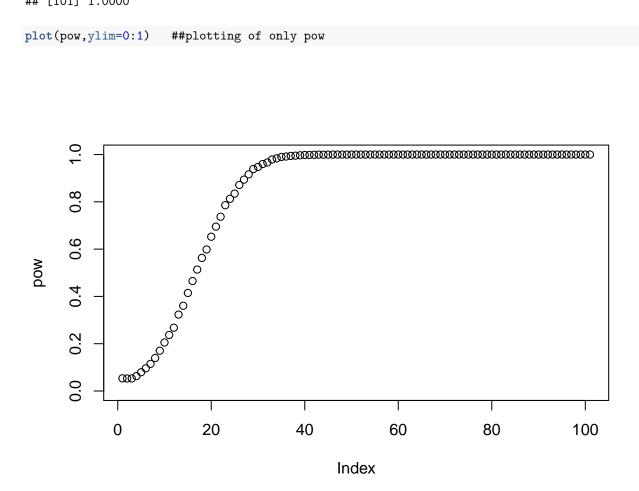
```
m=1e4
mu2s=seq(0,10,by=0.1)
pow=numeric(length(mu2s))
for(j in 1:length(mu2s))
    {
    result=logical(m)
    for(i in 1:m)
        {
        X=rnorm(n=20,mean=0,sd=3)
        Y=rnorm(n=25,mean=mu2s[j],sd=2)
        my.test=t.test(X,Y)
        my.test
        result[i]=my.test$p.value<0.05

    }
    pow[j]=mean(result)
}
pow #to know the pow values</pre>
```

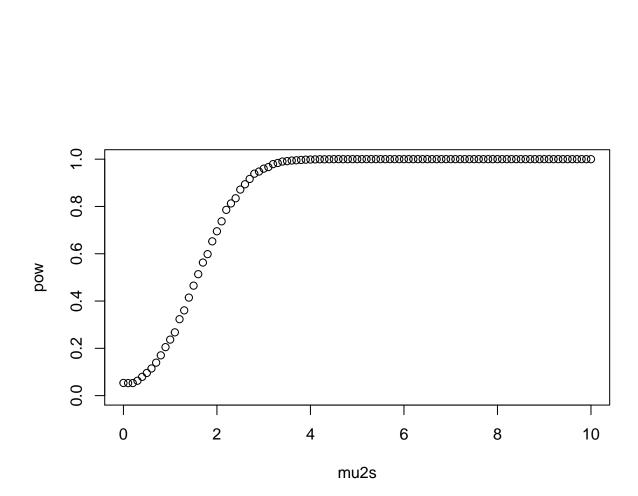
```
## [1] 0.0536 0.0529 0.0531 0.0629 0.0793 0.0958 0.1148 0.1395 0.1704 0.2051  
## [11] 0.2369 0.2676 0.3232 0.3605 0.4146 0.4651 0.5136 0.5628 0.5984 0.6524  
## [21] 0.6951 0.7371 0.7856 0.8128 0.8347 0.8715 0.8939 0.9164 0.9386 0.9477  
## [31] 0.9599 0.9665 0.9791 0.9839 0.9899 0.9917 0.9942 0.9953 0.9968 0.9980  
## [41] 0.9985 0.9990 0.9996 0.9994 0.9996 1.0000 1.0000 0.9999 0.9999 1.0000  
## [51] 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000
```

```
[61] 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000
##
   [71] 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000
   [81] 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000
  [91] 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000
## [101] 1.0000
```

```
plot(pow,ylim=0:1)
```



plot(mu2s,pow,ylim=0:1) ## plotting of mu2s and pow



What are your conclusions?

Answer:in the above question we have plotted a graph in between mu2s and power. and i can conclude that for most of the cases in null hypothesis can be true only in one way buut can be false in many ways.