

Carga de la evolución del r_0 de un conjunto de entidades en un csv

DataIntelligence

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```
library(janitor)
library(dplyr)
library(readxl)

# la siguiente linea impide el despliegue de advertencias en forma local:
options(warn = -1)

library(tidyverse)
library(gghighlight)
library(magrittr)
library(readr)
library(ape)
library(ggdendro)
library(rmarkdown)
library(ggplot2)
library(gganimate)
theme_set(theme_bw())

covid19 <- read_xlsx("distritos_con_cod.xlsx")

# corregimos el formato del dato fecha del excel:
covid19$Fecha <- excel_numeric_to_date(covid19$Fecha)

# se declara un vector que almacene los valores de R0:
a <- c()

for(t in 1:81)
{
  # construimos una subtabla que contenga solo las filas determinadas por un
  # codigo fijo:
  comuna_en_cuestion = covid19[covid19$codigo == t,]

  longitud = nrow(comuna_en_cuestion)
  comu <- comuna_en_cuestion$Comuna

  if(nrow(comuna_en_cuestion) != 0 && comuna_en_cuestion$Poblacion != 0)
  {

    # unique() devuelve un vector, un dataframe o una matriz como x,
    # pero con sus elementos (o filas) duplicados eliminados.
    # population = as.numeric(comuna_en_cuestion$Poblacion) %>% unique()

    # Si la tabla excel contiene el dato de la poblacion constante
```

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# para todas las fechas no es necesario:
population = as.numeric(comuna_en_cuestion$Poblacion)

# Construimos una subtabla con dos columnas:
# los datos de los casos diarios y la fecha:

# Notemos algo en este trozo de codigo: FUN = sum no hace nada porque
# no se puede agrupar construyendo una suma ya que cada fecha es unica.
# Es importante porque nos permite construir la subtabla que necesitamos:

# La tabla se crea con los datos de las columnas invertidos:
# primero la fecha, luego los casos diarios:
infectados.por.dia =
aggregate(comuna_en_cuestion$Casos_Diarios ~
comuna_en_cuestion$Fecha, FUN = sum)

fallecidos.por.dia =
aggregate(comuna_en_cuestion$Fallecidos_Diarios ~
comuna_en_cuestion$Fecha, FUN = sum)

# sumamos a los infectados diarios los casos diarios y los fallecidos,
# ya que el modelo SIR no considera a los fallecidos.
infectados.por.dia2 =
infectados.por.dia[,2] + fallecidos.por.dia[,2]

recuperados.por.dia =
aggregate(comuna_en_cuestion$Recuperados_Diarios ~
comuna_en_cuestion$Fecha, FUN = sum)

# Los susceptibles por dia no es un valor agregado.
# En todas las filas a la constante de
# poblacion se le restan los valores de infectados del dia y los
susceptibles.por.dia =
population - infectados.por.dia2 - recuperados.por.dia[,2]

# Creamos la tabla SIR:
tabla.comuna =
data.frame(unique(comuna_en_cuestion$Fecha),
susceptibles.por.dia, infectados.por.dia2, recuperados.por.dia[,2])

names(tabla.comuna) =
c("Fecha", "Susceptibles", "Infectados", "Recuperados")

# Obtenemos los valores que vamos a necesitar para correr nuestras
x = tabla.comuna$Recuperados
y = population*log(tabla.comuna$Susceptibles)
}

# Verifiquemos los valores obtenidos:
print(tabla.comuna)
print(x)
print(y)

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# En esta seccion vamos almacenando en el vector a los valores de r0 en
# intervalos desde el primer dia (puede ser desde el segundo, da lo mismo)
# hasta el segundo dia, desde el primero hasta el tercero, desde el
# primero hasta el cuarto y asi sucesivamente.

# Declaramos una secuencia con los valores del extremo superior
# de estos intervalos:
m <- seq(2, longitud)

for (i in m)
{
  xx <- x[1:i]
  yy <- y[1:i]
  estimacion.R0 = -summary(lm(yy ~ xx))$coefficients[2]
  a[i] <- estimacion.R0
}

x <- 1:longitud

eee <- data.frame(comu, x, a)

# Verifiquemos lo que vamos a guardar en el csv:
print(eee)

write.table(eee,'opepanama.csv', col.names=F, append=T, sep = ",")
}

```

```

##      Fecha Susceptibles Infectados Recuperados
## 1  2020-06-06      47568           0           0
## 2  2020-06-07      47568           0           0
## 3  2020-06-08      47568           0           0
## 4  2020-06-09      47532          20          16
## 5  2020-06-10      47568           0           0
## 6  2020-06-11      47559           8           1
## 7  2020-06-12      47568           0           0
## 8  2020-06-13      47523           9          36
## 9  2020-06-14      47561           7           0
## 10 2020-06-15      47558          10           0
## 11 2020-06-16      47567           1           0
## 12 2020-06-17      47568           0           0
## 13 2020-06-18      47558          10           0
## 14 2020-06-19      47565           3           0
## 15 2020-06-20      47563           4           1
## [1] 0 0 0 16 0 1 0 36 0 0 0 0 0 0 0 1
## [1] 512303.3 512303.3 512303.3 512267.3 512303.3 512294.3 512303.3 512258.3
## [9] 512296.3 512293.3 512302.3 512303.3 512293.3 512300.3 512298.3
##      comu x      a
## 1  Aguadulce 1      NA
## 2  Aguadulce 2  0.000000e+00
## 3  Aguadulce 3 -3.360621e-11
## 4  Aguadulce 4  2.250852e+00
## 5  Aguadulce 5  2.250852e+00
## 6  Aguadulce 6  2.191594e+00
## 7  Aguadulce 7  2.206150e+00

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## 8 Aguadulce 8 1.339156e+00
## 9 Aguadulce 9 1.317241e+00
## 10 Aguadulce 10 1.288175e+00
## 11 Aguadulce 11 1.298855e+00
## 12 Aguadulce 12 1.310788e+00
## 13 Aguadulce 13 1.290091e+00
## 14 Aguadulce 14 1.292387e+00
## 15 Aguadulce 15 1.292473e+00
##      Fecha Susceptibles Infectados Recuperados
## 1 2020-06-06      16966           0           0
## 2 2020-06-07      16966           0           0
## 3 2020-06-08      16966           0           0
## 4 2020-06-09      16918          36          12
## 5 2020-06-10      16966           0           0
## 6 2020-06-11      16952          12           2
## 7 2020-06-12      16966           0           0
## 8 2020-06-13      16865          73          28
## 9 2020-06-14      16953          13           0
## 10 2020-06-15      16966           0           0
## 11 2020-06-16      16951          15           0
## 12 2020-06-17      16966           0           0
## 13 2020-06-18      16936          30           0
## 14 2020-06-19      16937          21           8
## 15 2020-06-20      16938          28           0
## [1] 0 0 0 12 0 2 0 28 0 0 0 0 0 0 8 0
## [1] 165231.3 165231.3 165231.3 165183.2 165231.3 165217.3 165231.3 165130.0
## [9] 165218.3 165231.3 165216.3 165231.3 165201.3 165202.3 165203.3
##      comu x      a
## 1 Alanje 1      NA
## 2 Alanje 2 0.000000e+00
## 3 Alanje 3 -3.360621e-11
## 4 Alanje 4 4.005669e+00
## 5 Alanje 5 4.005669e+00
## 6 Alanje 6 3.988344e+00
## 7 Alanje 7 4.005669e+00
## 8 Alanje 8 3.631141e+00
## 9 Alanje 9 3.557296e+00
## 10 Alanje 10 3.573955e+00
## 11 Alanje 11 3.512701e+00
## 12 Alanje 12 3.530476e+00
## 13 Alanje 13 3.423227e+00
## 14 Alanje 14 3.399751e+00
## 15 Alanje 15 3.310215e+00
##      Fecha Susceptibles Infectados Recuperados
## 1 2020-06-06      29229           0           0
## 2 2020-06-07      29229           0           0
## 3 2020-06-08      29229           0           0
## 4 2020-06-09      29222           7           0
## 5 2020-06-10      29229           0           0
## 6 2020-06-11      29214          15           0
## 7 2020-06-12      29229           0           0
## 8 2020-06-13      29224           2           3
## 9 2020-06-14      29229           0           0
## 10 2020-06-15      29229           0           0

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## 11 2020-06-16      29229      0      0
## 12 2020-06-17      29229      0      0
## 13 2020-06-18      29222      7      0
## 14 2020-06-19      29229      0      0
## 15 2020-06-20      29222      7      0
## [1] 0 0 0 0 0 0 0 3 0 0 0 0 0 0 0
## [1] 300559.4 300559.4 300559.4 300552.4 300559.4 300544.4 300559.4 300554.4
## [9] 300559.4 300559.4 300559.4 300559.4 300552.4 300559.4 300552.4
##      comu x      a
## 1 Almirante 1      NA
## 2 Almirante 2 0.0000000
## 3 Almirante 3 0.0000000
## 4 Almirante 4 -1.7502096
## 5 Almirante 5 -1.4001677
## 6 Almirante 6 -2.5392007
## 7 Almirante 7 -2.2090449
## 8 Almirante 8 0.6189669
## 9 Almirante 9 0.7499472
## 10 Almirante 10 0.8518208
## 11 Almirante 11 0.9333196
## 12 Almirante 12 1.0000005
## 13 Almirante 13 0.8611002
## 14 Almirante 14 0.9230778
## 15 Almirante 15 0.8095148
##      Fecha Susceptibles Infectados Recuperados
## 1 2020-06-06      59470      0      0
## 2 2020-06-07      59470      0      0
## 3 2020-06-08      59470      0      0
## 4 2020-06-09      59440      20      10
## 5 2020-06-10      59470      0      0
## 6 2020-06-11      59457      12      1
## 7 2020-06-12      59470      0      0
## 8 2020-06-13      59438      18      14
## 9 2020-06-14      59462      7      1
## 10 2020-06-15      59452      16      2
## 11 2020-06-16      59457      9      4
## 12 2020-06-17      59470      0      0
## 13 2020-06-18      59449      21      0
## 14 2020-06-19      59459      9      2
## 15 2020-06-20      59455      15      0
## [1] 0 0 0 10 0 1 0 14 1 2 4 0 0 2 0
## [1] 653767.2 653767.2 653767.2 653737.2 653767.2 653754.2 653767.2 653735.2
## [9] 653759.2 653749.2 653754.2 653767.2 653746.2 653756.2 653752.2
##      comu x      a
## 1 Antón 1      NA
## 2 Antón 2 -8.231806e-11
## 3 Antón 3 -6.721242e-11
## 4 Antón 4 3.000757e+00
## 5 Antón 5 3.000757e+00
## 6 Antón 6 2.897657e+00
## 7 Antón 7 2.932493e+00
## 8 Antón 8 2.406706e+00
## 9 Antón 9 2.375031e+00
## 10 Antón 10 2.336070e+00

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## 11 Antón 11 2.336536e+00
## 12 Antón 12 2.377435e+00
## 13 Antón 13 2.193855e+00
## 14 Antón 14 2.190943e+00
## 15 Antón 15 2.099398e+00
##      Fecha Susceptibles Infectados Recuperados
## 1 2020-06-06      288522          0          0
## 2 2020-06-07      288522          0          0
## 3 2020-06-08      288522          0          0
## 4 2020-06-09      288520          2          0
## 5 2020-06-10      288522          0          0
## 6 2020-06-11      288515          5          2
## 7 2020-06-12      288522          0          0
## 8 2020-06-13      288508          2         12
## 9 2020-06-14      288522          0          0
## 10 2020-06-15      288504         13          5
## 11 2020-06-16      288520          2          0
## 12 2020-06-17      288522          0          0
## 13 2020-06-18      288519          3          0
## 14 2020-06-19      288514          6          2
## 15 2020-06-20      288519          3          0
## [1] 0 0 0 0 0 2 0 12 0 5 0 0 0 2 0
## [1] 3627451 3627451 3627451 3627449 3627451 3627444 3627451 3627437 3627451
## [10] 3627433 3627449 3627451 3627448 3627443 3627448
##      comu x      a
## 1 Arraiján 1      NA
## 2 Arraiján 2 -3.292723e-10
## 3 Arraiján 3 -2.688497e-10
## 4 Arraiján 4 -5.000017e-01
## 5 Arraiján 5 -4.000014e-01
## 6 Arraiján 6 3.300042e+00
## 7 Arraiján 7 3.333375e+00
## 8 Arraiján 8 1.147802e+00
## 9 Arraiján 9 1.158479e+00
## 10 Arraiján 10 1.417861e+00
## 11 Arraiján 11 1.410544e+00
## 12 Arraiján 12 1.426860e+00
## 13 Arraiján 13 1.409996e+00
## 14 Arraiján 14 1.422719e+00
## 15 Arraiján 15 1.410608e+00
##      Fecha Susceptibles Infectados Recuperados
## 1 2020-06-06      10798          0          0
## 2 2020-06-07      10798          0          0
## 3 2020-06-08      10798          0          0
## 4 2020-06-09      10793          5          0
## 5 2020-06-10      10798          0          0
## 6 2020-06-11      10798          0          0
## 7 2020-06-12      10798          0          0
## 8 2020-06-13      10793          2          3
## 9 2020-06-14      10795          3          0
## 10 2020-06-15      10795          3          0
## 11 2020-06-16      10798          0          0
## 12 2020-06-17      10798          0          0
## 13 2020-06-18      10798          0          0

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## 14 2020-06-19      10797      1      0
## 15 2020-06-20      10797      1      0
## [1] 0 0 0 0 0 0 0 3 0 0 0 0 0 0 0
## [1] 100282.3 100282.3 100282.3 100277.3 100282.3 100282.3 100282.3 100277.3
## [9] 100279.3 100279.3 100282.3 100282.3 100282.3 100281.3 100281.3
##      comu x      a
## 1  Atalaya 1      NA
## 2  Atalaya 2  0.000000e+00
## 3  Atalaya 3 -1.680310e-11
## 4  Atalaya 4 -1.250289e+00
## 5  Atalaya 5 -1.000232e+00
## 6  Atalaya 6 -8.335263e-01
## 7  Atalaya 7 -7.144511e-01
## 8  Atalaya 8  1.428902e+00
## 9  Atalaya 9  1.333654e+00
## 10 Atalaya 10 1.259571e+00
## 11 Atalaya 11 1.300320e+00
## 12 Atalaya 12 1.333659e+00
## 13 Atalaya 13 1.361442e+00
## 14 Atalaya 14 1.359308e+00
## 15 Atalaya 15 1.357479e+00
##      Fecha Susceptibles Infectados Recuperados
## 1  2020-06-06      3153          0          0
## 2  2020-06-07      3153          0          0
## 3  2020-06-08      3153          0          0
## 4  2020-06-09      3151          2          0
## 5  2020-06-10      3153          0          0
## 6  2020-06-11      3148          3          2
## 7  2020-06-12      3153          0          0
## 8  2020-06-13      3145          1          7
## 9  2020-06-14      3153          0          0
## 10 2020-06-15      3153          0          0
## 11 2020-06-16      3153          0          0
## 12 2020-06-17      3153          0          0
## 13 2020-06-18      3153          0          0
## 14 2020-06-19      3148          2          3
## 15 2020-06-20      3152          1          0
## [1] 0 0 0 0 0 2 0 7 0 0 0 0 0 3 0
## [1] 25400.91 25400.91 25400.91 25398.91 25400.91 25395.91 25400.91 25392.90
## [9] 25400.91 25400.91 25400.91 25400.91 25400.91 25395.91 25399.91
##      comu x      a
## 1  Balboa 1      NA
## 2  Balboa 2 -2.572439e-12
## 3  Balboa 3 -2.100388e-12
## 4  Balboa 4 -5.001586e-01
## 5  Balboa 5 -4.001269e-01
## 6  Balboa 6  2.301921e+00
## 7  Balboa 7  2.335265e+00
## 8  Balboa 8  1.147230e+00
## 9  Balboa 9  1.160553e+00
## 10 Balboa 10 1.170731e+00
## 11 Balboa 11 1.178759e+00
## 12 Balboa 12 1.185255e+00
## 13 Balboa 13 1.190617e+00

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## 14 Balboa 14 1.236256e+00
## 15 Balboa 15 1.226639e+00
##      Fecha Susceptibles Infectados Recuperados
## 1  2020-06-06      56924           0           0
## 2  2020-06-07      56924           0           0
## 3  2020-06-08      56924           0           0
## 4  2020-06-09      56924           0           0
## 5  2020-06-10      56924           0           0
## 6  2020-06-11      56921           2           1
## 7  2020-06-12      56924           0           0
## 8  2020-06-13      56922           1           1
## 9  2020-06-14      56924           0           0
## 10 2020-06-15      56923           1           0
## 11 2020-06-16      56922           2           0
## 12 2020-06-17      56924           0           0
## 13 2020-06-18      56920           4           0
## 14 2020-06-19      56922           2           0
## 15 2020-06-20      56921           3           0
## [1] 0 0 0 0 0 1 0 1 0 0 0 0 0 0 0
## [1] 623287.8 623287.8 623287.8 623287.8 623287.8 623284.8 623287.8 623285.8
## [9] 623287.8 623286.8 623285.8 623287.8 623283.8 623285.8 623284.8
##      comu      x      a
## 1  Barú  1      NA
## 2  Barú  2  0.000000e+00
## 3  Barú  3 -6.721242e-11
## 4  Barú  4  0.000000e+00
## 5  Barú  5  0.000000e+00
## 6  Barú  6  3.000079e+00
## 7  Barú  7  3.000079e+00
## 8  Barú  8  2.500057e+00
## 9  Barú  9  2.500057e+00
## 10 Barú 10  2.375056e+00
## 11 Barú 11  2.166719e+00
## 12 Barú 12  2.200053e+00
## 13 Barú 13  1.863677e+00
## 14 Barú 14  1.750039e+00
## 15 Barú 15  1.576957e+00
##      Fecha Susceptibles Infectados Recuperados
## 1  2020-06-06      30971           0           0
## 2  2020-06-07      30971           0           0
## 3  2020-06-08      30971           0           0
## 4  2020-06-09      30968           1           2
## 5  2020-06-10      30971           0           0
## 6  2020-06-11      30971           0           0
## 7  2020-06-12      30971           0           0
## 8  2020-06-13      30971           0           0
## 9  2020-06-14      30971           0           0
## 10 2020-06-15      30971           0           0
## 11 2020-06-16      30971           0           0
## 12 2020-06-17      30971           0           0
## 13 2020-06-18      30929          37           5
## 14 2020-06-19      30970           0           1
## 15 2020-06-20      30971           0           0
## [1] 0 0 0 2 0 0 0 0 0 0 0 0 0 5 1 0

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## [1] 320265.1 320265.1 320265.1 320262.1 320265.1 320265.1 320265.1 320265.1
## [9] 320265.1 320265.1 320265.1 320265.1 320223.1 320264.1 320265.1
##      comu  x      a
## 1  Besiko  1      NA
## 2  Besiko  2 -4.115903e-11
## 3  Besiko  3 -3.360621e-11
## 4  Besiko  4  1.500073e+00
## 5  Besiko  5  1.500073e+00
## 6  Besiko  6  1.500073e+00
## 7  Besiko  7  1.500073e+00
## 8  Besiko  8  1.500073e+00
## 9  Besiko  9  1.500073e+00
## 10 Besiko 10  1.500073e+00
## 11 Besiko 11  1.500073e+00
## 12 Besiko 12  1.500073e+00
## 13 Besiko 13  7.605659e+00
## 14 Besiko 14  7.504973e+00
## 15 Besiko 15  7.484231e+00
##      Fecha Susceptibles Infectados Recuperados
## 1  2020-06-06      21341           0           0
## 2  2020-06-07      21341           0           0
## 3  2020-06-08      21341           0           0
## 4  2020-06-09      21336           1           4
## 5  2020-06-10      21341           0           0
## 6  2020-06-11      21335           6           0
## 7  2020-06-12      21341           0           0
## 8  2020-06-13      21323          18           0
## 9  2020-06-14      21335           6           0
## 10 2020-06-15      21337           4           0
## 11 2020-06-16      21316          25           0
## 12 2020-06-17      21341           0           0
## 13 2020-06-18      21339           2           0
## 14 2020-06-19      21335           6           0
## 15 2020-06-20      21341           0           0
## [1] 0 0 0 4 0 0 0 0 0 0 0 0 0 0 0
## [1] 212735.3 212735.3 212735.3 212730.3 212735.3 212729.3 212735.3 212717.3
## [9] 212729.3 212731.3 212710.3 212735.3 212733.3 212729.3 212735.3
##      comu  x      a
## 1  Bocas del Toro  1      NA
## 2  Bocas del Toro  2 -2.057952e-11
## 3  Bocas del Toro  3 -1.680310e-11
## 4  Bocas del Toro  4  1.250146e+00
## 5  Bocas del Toro  5  1.250146e+00
## 6  Bocas del Toro  6  9.501043e-01
## 7  Bocas del Toro  7  1.000111e+00
## 8  Bocas del Toro  8  3.927022e-01
## 9  Bocas del Toro  9  3.123564e-01
## 10 Bocas del Toro 10  3.054337e-01
## 11 Bocas del Toro 11 -2.254613e-01
## 12 Bocas del Toro 12 -9.131518e-02
## 13 Bocas del Toro 13 -2.119533e-02
## 14 Bocas del Toro 14 -3.880065e-02
## 15 Bocas del Toro 15  5.326700e-02
##      Fecha Susceptibles Infectados Recuperados

```

```

## 1 2020-06-06      15811      0      0
## 2 2020-06-07      15811      0      0
## 3 2020-06-08      15811      0      0
## 4 2020-06-09      15797     12      2
## 5 2020-06-10      15811      0      0
## 6 2020-06-11      15807      4      0
## 7 2020-06-12      15811      0      0
## 8 2020-06-13      15811      0      0
## 9 2020-06-14      15804      2      5
## 10 2020-06-15      15805      6      0
## 11 2020-06-16      15802      6      3
## 12 2020-06-17      15811      0      0
## 13 2020-06-18      15798     13      0
## 14 2020-06-19      15804      5      2
## 15 2020-06-20      15810      1      0
## [1] 0 0 0 2 0 0 0 0 5 0 3 0 0 2 0
## [1] 152868 152868 152868 152854 152868 152864 152868 152868 152868 152861 152862
## [11] 152859 152868 152855 152861 152867
##      comu x      a
## 1 Boquerón 1      NA
## 2 Boquerón 2 -2.057952e-11
## 3 Boquerón 3 -1.680310e-11
## 4 Boquerón 4 7.003101e+00
## 5 Boquerón 5 7.003101e+00
## 6 Boquerón 6 6.603050e+00
## 7 Boquerón 7 6.669725e+00
## 8 Boquerón 8 6.717351e+00
## 9 Boquerón 9 1.849640e+00
## 10 Boquerón 10 1.714256e+00
## 11 Boquerón 11 1.855933e+00
## 12 Boquerón 12 1.910715e+00
## 13 Boquerón 13 1.624845e+00
## 14 Boquerón 14 1.658124e+00
## 15 Boquerón 15 1.704192e+00
##      Fecha Susceptibles Infectados Recuperados
## 1 2020-06-06      22732      0      0
## 2 2020-06-07      22732      0      0
## 3 2020-06-08      22732      0      0
## 4 2020-06-09      22705     24      3
## 5 2020-06-10      22732      0      0
## 6 2020-06-11      22719     11      2
## 7 2020-06-12      22732      0      0
## 8 2020-06-13      22700      9     23
## 9 2020-06-14      22724      8      0
## 10 2020-06-15      22725      7      0
## 11 2020-06-16      22728      4      0
## 12 2020-06-17      22732      0      0
## 13 2020-06-18      22723      9      0
## 14 2020-06-19      22709     11     12
## 15 2020-06-20      22729      3      0
## [1] 0 0 0 3 0 2 0 23 0 0 0 0 0 12 0
## [1] 228036.7 228036.7 228036.7 228009.7 228036.7 228023.7 228036.7 228004.7
## [9] 228028.7 228029.7 228032.7 228036.7 228027.7 228013.7 228033.7
##      comu x      a

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## 1 Boquete 1 NA
## 2 Boquete 2 0.000000e+00
## 3 Boquete 3 -5.040931e-11
## 4 Boquete 4 9.005349e+00
## 5 Boquete 5 9.005349e+00
## 6 Boquete 6 8.344050e+00
## 7 Boquete 7 8.322579e+00
## 8 Boquete 8 1.332041e+00
## 9 Boquete 9 1.307021e+00
## 10 Boquete 10 1.293893e+00
## 11 Boquete 11 1.299739e+00
## 12 Boquete 12 1.324060e+00
## 13 Boquete 13 1.303920e+00
## 14 Boquete 14 1.343535e+00
## 15 Boquete 15 1.352515e+00
##      Fecha Susceptibles Infectados Recuperados
## 1 2020-06-06      60200           0           0
## 2 2020-06-07      60200           0           0
## 3 2020-06-08      60200           0           0
## 4 2020-06-09      60061          75          64
## 5 2020-06-10      60200           0           0
## 6 2020-06-11      60122          47          31
## 7 2020-06-12      60200           0           0
## 8 2020-06-13      60041          44         115
## 9 2020-06-14      60173          24           3
## 10 2020-06-15      60181          16           3
## 11 2020-06-16      60172          25           3
## 12 2020-06-17      60200           0           0
## 13 2020-06-18      60151          48           1
## 14 2020-06-19      60136          37          27
## 15 2020-06-20      60175          24           1
## [1] 0 0 0 64 0 31 0 115 3 3 3 0 1 27 1
## [1] 662526.7 662526.7 662526.7 662387.6 662526.7 662448.7 662526.7 662367.5
## [9] 662499.7 662507.7 662498.7 662526.7 662477.7 662462.7 662501.7
##      comu x      a
## 1 Bugaba 1 NA
## 2 Bugaba 2 -8.231806e-11
## 3 Bugaba 3 -6.721242e-11
## 4 Bugaba 4 2.174386e+00
## 5 Bugaba 5 2.174386e+00
## 6 Bugaba 6 2.219827e+00
## 7 Bugaba 7 2.223626e+00
## 8 Bugaba 8 1.546965e+00
## 9 Bugaba 9 1.522134e+00
## 10 Bugaba 10 1.514446e+00
## 11 Bugaba 11 1.497558e+00
## 12 Bugaba 12 1.511755e+00
## 13 Bugaba 13 1.470753e+00
## 14 Bugaba 14 1.477632e+00
## 15 Bugaba 15 1.467913e+00
##      Fecha Susceptibles Infectados Recuperados
## 1 2020-06-06      11571           0           0
## 2 2020-06-07      11569           2           0
## 3 2020-06-08      11571           0           0

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## 4 2020-06-09      11522      31      18
## 5 2020-06-10      11571       0       0
## 6 2020-06-11      11520      35      16
## 7 2020-06-12      11571       0       0
## 8 2020-06-13      11498      23      50
## 9 2020-06-14      11558      13       0
## 10 2020-06-15      11562       9       0
## 11 2020-06-16      11549      21       1
## 12 2020-06-17      11571       0       0
## 13 2020-06-18      11522      49       0
## 14 2020-06-19      11531      35       5
## 15 2020-06-20      11543      28       0
## [1] 0 0 0 18 0 16 0 50 0 0 1 0 0 5 0
## [1] 108261.3 108259.3 108261.3 108212.1 108261.3 108210.1 108261.3 108188.0
## [9] 108248.2 108252.2 108239.2 108261.3 108212.1 108221.2 108233.2
##      comu x      a
## 1 Calobre 1      NA
## 2 Calobre 2 -1.0000864
## 3 Calobre 3 -0.6667243
## 4 Calobre 4  2.6909622
## 5 Calobre 5  2.7002223
## 6 Calobre 6  2.8978840
## 7 Calobre 7  2.9050822
## 8 Calobre 8  1.6019257
## 9 Calobre 9  1.5698261
## 10 Calobre 10 1.5602186
## 11 Calobre 11 1.5218654
## 12 Calobre 12 1.5452759
## 13 Calobre 13 1.4371493
## 14 Calobre 14 1.4249291
## 15 Calobre 15 1.3895101
##      Fecha Susceptibles Infectados Recuperados
## 1 2020-06-06      17138         0         0
## 2 2020-06-07      17138         0         0
## 3 2020-06-08      17138         0         0
## 4 2020-06-09      17068        65         5
## 5 2020-06-10      17138         0         0
## 6 2020-06-11      17116        21         1
## 7 2020-06-12      17138         0         0
## 8 2020-06-13      17075        31        32
## 9 2020-06-14      17130         8         0
## 10 2020-06-15      17134         3         1
## 11 2020-06-16      17128        10         0
## 12 2020-06-17      17138         0         0
## 13 2020-06-18      17122        16         0
## 14 2020-06-19      17109        10        19
## 15 2020-06-20      17123        15         0
## [1] 0 0 0 5 0 1 0 32 0 1 0 0 0 19 0
## [1] 167079.3 167079.3 167079.3 167009.1 167079.3 167057.3 167079.3 167016.2
## [9] 167071.3 167075.3 167069.3 167079.3 167063.3 167050.3 167064.3
##      comu x      a
## 1 Cañazas 1      NA
## 2 Cañazas 2 -2.057952e-11
## 3 Cañazas 3 -1.680310e-11

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## 4 Cañazas 4 1.402867e+01
## 5 Cañazas 5 1.402867e+01
## 6 Cañazas 6 1.402867e+01
## 7 Cañazas 7 1.408336e+01
## 8 Cañazas 8 1.903273e+00
## 9 Cañazas 9 1.914507e+00
## 10 Cañazas 10 1.940227e+00
## 11 Cañazas 11 1.936955e+00
## 12 Cañazas 12 1.969478e+00
## 13 Cañazas 13 1.944954e+00
## 14 Cañazas 14 1.729868e+00
## 15 Cañazas 15 1.709378e+00
##      Fecha Susceptibles Infectados Recuperados
## 1 2020-06-06      44658           0           0
## 2 2020-06-07      44658           0           0
## 3 2020-06-08      44658           0           0
## 4 2020-06-09      44637          14           7
## 5 2020-06-10      44658           0           0
## 6 2020-06-11      44632          16          10
## 7 2020-06-12      44658           0           0
## 8 2020-06-13      44597          15          46
## 9 2020-06-14      44656           2           0
## 10 2020-06-15      44647          11           0
## 11 2020-06-16      44657           1           0
## 12 2020-06-17      44658           0           0
## 13 2020-06-18      44648           9           1
## 14 2020-06-19      44651           2           5
## 15 2020-06-20      44646          10           2
## [1] 0 0 0 7 0 10 0 46 0 0 0 0 1 5 2
## [1] 478143.8 478143.8 478143.8 478122.8 478143.8 478117.8 478143.8 478082.7
## [9] 478141.8 478132.8 478142.8 478143.8 478133.8 478136.8 478131.8
##      comu x      a
## 1 Capira 1      NA
## 2 Capira 2 0.000000e+00
## 3 Capira 3 -6.721242e-11
## 4 Capira 4 3.000706e+00
## 5 Capira 5 3.000706e+00
## 6 Capira 6 2.716445e+00
## 7 Capira 7 2.719575e+00
## 8 Capira 8 1.336500e+00
## 9 Capira 9 1.340268e+00
## 10 Capira 10 1.312766e+00
## 11 Capira 11 1.321293e+00
## 12 Capira 12 1.330871e+00
## 13 Capira 13 1.319839e+00
## 14 Capira 14 1.319720e+00
## 15 Capira 15 1.311440e+00
##      Fecha Susceptibles Infectados Recuperados
## 1 2020-06-06      9411           0           0
## 2 2020-06-07      9411           0           0
## 3 2020-06-08      9411           0           0
## 4 2020-06-09      9354          28          29
## 5 2020-06-10      9411           0           0
## 6 2020-06-11      9386          17           8

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## 7 2020-06-12      9411      0      0
## 8 2020-06-13      9327     19     65
## 9 2020-06-14      9409      2      0
## 10 2020-06-15     9397     14      0
## 11 2020-06-16     9406      5      0
## 12 2020-06-17     9411      0      0
## 13 2020-06-18     9399     12      0
## 14 2020-06-19     9392      5     14
## 15 2020-06-20     9403      8      0
## [1] 0 0 0 29 0 8 0 65 0 0 0 0 0 14 0
## [1] 86107.21 86107.21 86107.21 86050.04 86107.21 86082.18 86107.21 86022.83
## [9] 86105.21 86093.20 86102.21 86107.21 86095.20 86088.19 86099.21
##      comu x      a
## 1  Cémaco  1      NA
## 2  Cémaco  2 -1.028976e-11
## 3  Cémaco  3 -8.401552e-12
## 4  Cémaco  4  1.971494e+00
## 5  Cémaco  5  1.971494e+00
## 6  Cémaco  6  1.996580e+00
## 7  Cémaco  7  2.006928e+00
## 8  Cémaco  8  1.362805e+00
## 9  Cémaco  9  1.366932e+00
## 10 Cémaco 10  1.340068e+00
## 11 Cémaco 11  1.339158e+00
## 12 Cémaco 12  1.348403e+00
## 13 Cémaco 13  1.334203e+00
## 14 Cémaco 14  1.328252e+00
## 15 Cémaco 15  1.322328e+00
##      Fecha Susceptibles Infectados Recuperados
## 1 2020-06-06      11172          0          0
## 2 2020-06-07      11172          0          0
## 3 2020-06-08      11172          0          0
## 4 2020-06-09      11123         42          7
## 5 2020-06-10      11172          0          0
## 6 2020-06-11      11133         36          3
## 7 2020-06-12      11172          0          0
## 8 2020-06-13      11101         30         41
## 9 2020-06-14      11158         14          0
## 10 2020-06-15      11156         15          1
## 11 2020-06-16      11161         11          0
## 12 2020-06-17      11172          0          0
## 13 2020-06-18      11150         22          0
## 14 2020-06-19      11141         20         11
## 15 2020-06-20      11150         22          0
## [1] 0 0 0 7 0 3 0 41 0 1 0 0 0 11 0
## [1] 104136.1 104136.1 104136.1 104087.0 104136.1 104097.0 104136.1 104064.8
## [9] 104122.1 104120.1 104125.1 104136.1 104114.0 104105.0 104114.0
##      comu x      a
## 1  Chagres  1      NA
## 2  Chagres  2 -1.028976e-11
## 3  Chagres  3 -8.401552e-12
## 4  Chagres  4  7.015396e+00
## 5  Chagres  5  7.015396e+00
## 6  Chagres  6  7.596752e+00

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## 7 Chagres 7 7.663247e+00
## 8 Chagres 8 1.672748e+00
## 9 Chagres 9 1.654196e+00
## 10 Chagres 10 1.641441e+00
## 11 Chagres 11 1.639547e+00
## 12 Chagres 12 1.669501e+00
## 13 Chagres 13 1.636723e+00
## 14 Chagres 14 1.646919e+00
## 15 Chagres 15 1.617121e+00
##      Fecha Susceptibles Infectados Recuperados
## 1 2020-06-06      29811           0           0
## 2 2020-06-07      29811           0           0
## 3 2020-06-08      29811           0           0
## 4 2020-06-09      29803           8           0
## 5 2020-06-10      29811           0           0
## 6 2020-06-11      29809           2           0
## 7 2020-06-12      29811           0           0
## 8 2020-06-13      29805           2           4
## 9 2020-06-14      29808           2           1
## 10 2020-06-15      29811           0           0
## 11 2020-06-16      29802           9           0
## 12 2020-06-17      29811           0           0
## 13 2020-06-18      29809           2           0
## 14 2020-06-19      29808           2           1
## 15 2020-06-20      29811           0           0
## [1] 0 0 0 0 0 0 0 4 1 0 0 0 0 1 0
## [1] 307131.8 307131.8 307131.8 307123.8 307131.8 307129.8 307131.8 307125.8
## [9] 307128.8 307131.8 307122.8 307131.8 307129.8 307128.8 307131.8
##      comu x      a
## 1 Chame 1      NA
## 2 Chame 2 0.000000e+00
## 3 Chame 3 -3.360621e-11
## 4 Chame 4 -2.000268e+00
## 5 Chame 5 -1.600215e+00
## 6 Chame 6 -1.308268e+00
## 7 Chame 7 -1.131039e+00
## 8 Chame 8 1.142967e+00
## 9 Chame 9 1.156356e+00
## 10 Chame 10 1.207008e+00
## 11 Chame 11 9.692096e-01
## 12 Chame 12 1.028014e+00
## 13 Chame 13 1.025596e+00
## 14 Chame 14 1.027857e+00
## 15 Chame 15 1.077008e+00
##      Fecha Susceptibles Infectados Recuperados
## 1 2020-06-06      102334           0           0
## 2 2020-06-07      102334           0           0
## 3 2020-06-08      102334           0           0
## 4 2020-06-09      102271          52          11
## 5 2020-06-10      102334           0           0
## 6 2020-06-11      102284          39          11
## 7 2020-06-12      102334           0           0
## 8 2020-06-13      102263          31          40
## 9 2020-06-14      102296          27          11

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## 10 2020-06-15      102320      14      0
## 11 2020-06-16      102313      21      0
## 12 2020-06-17      102334       0      0
## 13 2020-06-18      102305      29      0
## 14 2020-06-19      102293      25     16
## 15 2020-06-20      102303      11     20
## [1] 0 0 0 11 0 11 0 40 11 0 0 0 0 16 20
## [1] 1180525 1180525 1180525 1180462 1180525 1180475 1180525 1180454 1180487
## [10] 1180511 1180504 1180525 1180496 1180484 1180494
##      comu x      a
## 1 Changuinola 1      NA
## 2 Changuinola 2 0.000000e+00
## 3 Changuinola 3 -1.344248e-10
## 4 Changuinola 4 5.729036e+00
## 5 Changuinola 5 5.729036e+00
## 6 Changuinola 6 5.137801e+00
## 7 Changuinola 7 5.137801e+00
## 8 Changuinola 8 1.952183e+00
## 9 Changuinola 9 1.970423e+00
## 10 Changuinola 10 1.943320e+00
## 11 Changuinola 11 1.891335e+00
## 12 Changuinola 12 1.934662e+00
## 13 Changuinola 13 1.864695e+00
## 14 Changuinola 14 1.862587e+00
## 15 Changuinola 15 1.738741e+00
##      Fecha Susceptibles Infectados Recuperados
## 1 2020-06-06      15620         0         0
## 2 2020-06-07      15620         0         0
## 3 2020-06-08      15620         0         0
## 4 2020-06-09      15619         1         0
## 5 2020-06-10      15620         0         0
## 6 2020-06-11      15614         1         5
## 7 2020-06-12      15620         0         0
## 8 2020-06-13      15620         0         0
## 9 2020-06-14      15620         0         0
## 10 2020-06-15      15620         0         0
## 11 2020-06-16      15620         0         0
## 12 2020-06-17      15620         0         0
## 13 2020-06-18      15619         1         0
## 14 2020-06-19      15620         0         0
## 15 2020-06-20      15620         0         0
## [1] 0 0 0 0 0 5 0 0 0 0 0 0 0 0 0
## [1] 150831.5 150831.5 150831.5 150830.5 150831.5 150825.5 150831.5 150831.5
## [9] 150831.5 150831.5 150831.5 150831.5 150830.5 150831.5 150831.5
##      comu x      a
## 1 Chepigana 1      NA
## 2 Chepigana 2 -2.057952e-11
## 3 Chepigana 3 -1.680310e-11
## 4 Chepigana 4 -2.500080e-01
## 5 Chepigana 5 -2.000064e-01
## 6 Chepigana 6 1.160229e+00
## 7 Chepigana 7 1.166896e+00
## 8 Chepigana 8 1.171658e+00
## 9 Chepigana 9 1.175230e+00

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## 10 Chepigana 10 1.178008e+00
## 11 Chepigana 11 1.180230e+00
## 12 Chepigana 12 1.182048e+00
## 13 Chepigana 13 1.166896e+00
## 14 Chepigana 14 1.169460e+00
## 15 Chepigana 15 1.171658e+00
##      Fecha Susceptibles Infectados Recuperados
## 1  2020-06-06      56068           0           0
## 2  2020-06-07      56068           0           0
## 3  2020-06-08      56068           0           0
## 4  2020-06-09      56068           0           0
## 5  2020-06-10      56068           0           0
## 6  2020-06-11      56068           0           0
## 7  2020-06-12      56068           0           0
## 8  2020-06-13      56068           0           0
## 9  2020-06-14      56068           0           0
## 10 2020-06-15      56068           0           0
## 11 2020-06-16      56068           0           0
## 12 2020-06-17      56068           0           0
## 13 2020-06-18      56068           0           0
## 14 2020-06-19      56066           2           0
## 15 2020-06-20      56068           0           0
## [1] 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
## [1] 613065.5 613065.5 613065.5 613065.5 613065.5 613065.5 613065.5 613065.5
## [9] 613065.5 613065.5 613065.5 613065.5 613065.5 613063.5 613065.5
##      comu x      a
## 1  Chepo 1      NA
## 2  Chepo 2  0.000000e+00
## 3  Chepo 3 -6.721242e-11
## 4  Chepo 4  0.000000e+00
## 5  Chepo 5 -5.206251e-11
## 6  Chepo 6 -4.752636e-11
## 7  Chepo 7  0.000000e+00
## 8  Chepo 8 -4.115903e-11
## 9  Chepo 9 -3.880511e-11
## 10 Chepo 10 -3.681376e-11
## 11 Chepo 11 -7.020108e-11
## 12 Chepo 12 -3.360621e-11
## 13 Chepo 13 -3.228780e-11
## 14 Chepo 14 -1.428597e-01
## 15 Chepo 15 -1.333357e-01
##      Fecha Susceptibles Infectados Recuperados
## 1  2020-06-06      3290           0           0
## 2  2020-06-07      3290           0           0
## 3  2020-06-08      3290           0           0
## 4  2020-06-09      3267          17           6
## 5  2020-06-10      3290           0           0
## 6  2020-06-11      3276          11           3
## 7  2020-06-12      3290           0           0
## 8  2020-06-13      3266           9          15
## 9  2020-06-14      3286           4           0
## 10 2020-06-15      3283           7           0
## 11 2020-06-16      3287           3           0
## 12 2020-06-17      3290           0           0

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## 13 2020-06-18      3283      7      0
## 14 2020-06-19      3283      4      3
## 15 2020-06-20      3283      7      0
## [1] 0 0 0 6 0 3 0 15 0 0 0 0 0 3 0
## [1] 26644.53 26644.53 26644.53 26621.45 26644.53 26630.51 26644.53 26620.45
## [9] 26640.53 26637.53 26641.53 26644.53 26637.53 26637.53 26637.53
##      comu x      a
## 1  Chimán 1      NA
## 2  Chimán 2 0.000000e+00
## 3  Chimán 3 -2.100388e-12
## 4  Chimán 4 3.846795e+00
## 5  Chimán 5 3.846795e+00
## 6  Chimán 6 3.965342e+00
## 7  Chimán 7 3.974461e+00
## 8  Chimán 8 1.809585e+00
## 9  Chimán 9 1.786526e+00
## 10 Chimán 10 1.735374e+00
## 11 Chimán 11 1.735921e+00
## 12 Chimán 12 1.763396e+00
## 13 Chimán 13 1.728494e+00
## 14 Chimán 14 1.722303e+00
## 15 Chimán 15 1.691398e+00
##      Fecha Susceptibles Infectados Recuperados
## 1  2020-06-06      14565      0      0
## 2  2020-06-07      14565      0      0
## 3  2020-06-08      14565      0      0
## 4  2020-06-09      14565      0      0
## 5  2020-06-10      14565      0      0
## 6  2020-06-11      14565      0      0
## 7  2020-06-12      14565      0      0
## 8  2020-06-13      14565      0      0
## 9  2020-06-14      14565      0      0
## 10 2020-06-15      14565      0      0
## 11 2020-06-16      14565      0      0
## 12 2020-06-17      14565      0      0
## 13 2020-06-18      14565      0      0
## 14 2020-06-19      14565      0      0
## 15 2020-06-20      14565      0      0
## [1] 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
## [1] 139625.6 139625.6 139625.6 139625.6 139625.6 139625.6 139625.6 139625.6
## [9] 139625.6 139625.6 139625.6 139625.6 139625.6 139625.6 139625.6
##      comu x      a
## 1  Chiriquí Grande 1      NA
## 2  Chiriquí Grande 2 -2.057952e-11
## 3  Chiriquí Grande 3 -1.680310e-11
## 4  Chiriquí Grande 4 0.000000e+00
## 5  Chiriquí Grande 5 -1.301563e-11
## 6  Chiriquí Grande 6 0.000000e+00
## 7  Chiriquí Grande 7 -2.200043e-11
## 8  Chiriquí Grande 8 -1.028976e-11
## 9  Chiriquí Grande 9 0.000000e+00
## 10 Chiriquí Grande 10 -9.203439e-12
## 11 Chiriquí Grande 11 -1.755027e-11
## 12 Chiriquí Grande 12 -2.520466e-11

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## 13 Chiriquí Grande 13 -8.071950e-12
## 14 Chiriquí Grande 14 -7.778326e-12
## 15 Chiriquí Grande 15 -7.514577e-12
##      Fecha Susceptibles Infectados Recuperados
## 1  2020-06-06      53394           0           0
## 2  2020-06-07      53394           0           0
## 3  2020-06-08      53394           0           0
## 4  2020-06-09      53394           0           0
## 5  2020-06-10      53394           0           0
## 6  2020-06-11      53394           0           0
## 7  2020-06-12      53394           0           0
## 8  2020-06-13      53394           0           0
## 9  2020-06-14      53393           1           0
## 10 2020-06-15      53393           1           0
## 11 2020-06-16      53394           0           0
## 12 2020-06-17      53394           0           0
## 13 2020-06-18      53392           2           0
## 14 2020-06-19      53394           0           0
## 15 2020-06-20      53394           0           0
## [1] 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
## [1] 581217.9 581217.9 581217.9 581217.9 581217.9 581217.9 581217.9 581217.9 581217.9
## [9] 581216.9 581216.9 581217.9 581217.9 581215.9 581217.9 581217.9
##      comu x      a
## 1  Chitré  1      NA
## 2  Chitré  2 -8.231806e-11
## 3  Chitré  3 -6.721242e-11
## 4  Chitré  4  0.000000e+00
## 5  Chitré  5  0.000000e+00
## 6  Chitré  6 -9.505271e-11
## 7  Chitré  7  0.000000e+00
## 8  Chitré  8 -4.115903e-11
## 9  Chitré  9 -1.111122e-01
## 10 Chitré 10 -1.333346e-01
## 11 Chitré 11 -1.219685e-01
## 12 Chitré 12 -1.123677e-01
## 13 Chitré 13 -1.748513e-01
## 14 Chitré 14 -1.633660e-01
## 15 Chitré 15 -1.532737e-01
##      Fecha Susceptibles Infectados Recuperados
## 1  2020-06-06      242977           0           0
## 2  2020-06-07      242977           0           0
## 3  2020-06-08      242977           0           0
## 4  2020-06-09      242972           4           1
## 5  2020-06-10      242977           0           0
## 6  2020-06-11      242969           6           2
## 7  2020-06-12      242977           0           0
## 8  2020-06-13      242952          11          14
## 9  2020-06-14      242961          16           0
## 10 2020-06-15      242973           3           1
## 11 2020-06-16      242975           2           0
## 12 2020-06-17      242977           0           0
## 13 2020-06-18      242957          16           4
## 14 2020-06-19      242961          13           3
## 15 2020-06-20      242970           6           1

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## [1] 0 0 0 1 0 2 0 14 0 1 0 0 4 3 1
## [1] 3013090 3013090 3013090 3013085 3013090 3013082 3013090 3013065 3013074
## [10] 3013086 3013088 3013090 3013070 3013074 3013083
##      comu x      a
## 1  Colón 1      NA
## 2  Colón 2 -3.292723e-10
## 3  Colón 3 -2.688497e-10
## 4  Colón 4  5.000051e+00
## 5  Colón 5  5.000051e+00
## 6  Colón 6  4.142921e+00
## 7  Colón 7  4.153910e+00
## 8  Colón 8  1.760517e+00
## 9  Colón 9  1.592849e+00
## 10 Colón 10 1.595606e+00
## 11 Colón 11 1.604407e+00
## 12 Colón 12 1.628659e+00
## 13 Colón 13 1.768178e+00
## 14 Colón 14 1.818347e+00
## 15 Colón 15 1.812048e+00
##      Fecha Susceptibles Infectados Recuperados
## 1  2020-06-06      40451           0           0
## 2  2020-06-07      40451           0           0
## 3  2020-06-08      40451           0           0
## 4  2020-06-09      40425          15          11
## 5  2020-06-10      40451           0           0
## 6  2020-06-11      40434          12           5
## 7  2020-06-12      40451           0           0
## 8  2020-06-13      40394          16          41
## 9  2020-06-14      40444           7           0
## 10 2020-06-15      40437          14           0
## 11 2020-06-16      40439          11           1
## 12 2020-06-17      40451           0           0
## 13 2020-06-18      40434          17           0
## 14 2020-06-19      40429          16           6
## 15 2020-06-20      40438          13           0
## [1] 0 0 0 11 0 5 0 41 0 0 1 0 0 6 0
## [1] 429098 429098 429098 429072 429098 429081 429098 429041 429091 429084
## [11] 429086 429098 429081 429076 429085
##      comu x      a
## 1  Comarca Kuna Yala 1      NA
## 2  Comarca Kuna Yala 2  0.000000e+00
## 3  Comarca Kuna Yala 3 -6.721242e-11
## 4  Comarca Kuna Yala 4  2.364396e+00
## 5  Comarca Kuna Yala 5  2.364396e+00
## 6  Comarca Kuna Yala 6  2.481400e+00
## 7  Comarca Kuna Yala 7  2.492921e+00
## 8  Comarca Kuna Yala 8  1.405392e+00
## 9  Comarca Kuna Yala 9  1.385919e+00
## 10 Comarca Kuna Yala 10 1.344613e+00
## 11 Comarca Kuna Yala 11 1.327165e+00
## 12 Comarca Kuna Yala 12 1.343087e+00
## 13 Comarca Kuna Yala 13 1.307812e+00
## 14 Comarca Kuna Yala 14 1.315495e+00
## 15 Comarca Kuna Yala 15 1.297458e+00

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##      Fecha Susceptibles Infectados Recuperados
## 1  2020-06-06      161845           0           0
## 2  2020-06-07      161845           0           0
## 3  2020-06-08      161845           0           0
## 4  2020-06-09      161843           2           0
## 5  2020-06-10      161845           0           0
## 6  2020-06-11      161839           5           1
## 7  2020-06-12      161845           0           0
## 8  2020-06-13      161840           5           0
## 9  2020-06-14      161845           0           0
## 10 2020-06-15      161845           0           0
## 11 2020-06-16      161844           1           0
## 12 2020-06-17      161845           0           0
## 13 2020-06-18      161841           4           0
## 14 2020-06-19      161845           0           0
## 15 2020-06-20      161842           2           1
## [1] 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 1
## [1] 1941233 1941233 1941233 1941231 1941233 1941227 1941233 1941228 1941233
## [10] 1941233 1941232 1941233 1941229 1941233 1941230
##      comu x      a
## 1  David 1      NA
## 2  David 2  0.000000e+00
## 3  David 3 -1.344248e-10
## 4  David 4 -5.000031e-01
## 5  David 5 -4.000025e-01
## 6  David 6  5.600109e+00
## 7  David 7  5.666776e+00
## 8  David 8  5.000098e+00
## 9  David 9  5.125100e+00
## 10 David 10 5.222323e+00
## 11 David 11 5.200102e+00
## 12 David 12 5.272830e+00
## 13 David 13 5.000099e+00
## 14 David 14 5.077023e+00
## 15 David 15 3.576982e+00
##      Fecha Susceptibles Infectados Recuperados
## 1  2020-06-06      26105           0           0
## 2  2020-06-07      26105           0           0
## 3  2020-06-08      26105           0           0
## 4  2020-06-09      26098           4           3
## 5  2020-06-10      26105           0           0
## 6  2020-06-11      26076          29           0
## 7  2020-06-12      26105           0           0
## 8  2020-06-13      26084          21           0
## 9  2020-06-14      26078          27           0
## 10 2020-06-15      26102           3           0
## 11 2020-06-16      26100           5           0
## 12 2020-06-17      26105           0           0
## 13 2020-06-18      26074          31           0
## 14 2020-06-19      26103           2           0
## 15 2020-06-20      26102           3           0
## [1] 0 0 0 3 0 0 0 0 0 0 0 0 0 0 0 0
## [1] 265484.8 265484.8 265484.8 265477.8 265484.8 265455.8 265484.8 265463.8
## [9] 265457.8 265481.8 265479.8 265484.8 265453.8 265482.8 265481.8

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##      comu  x      a
## 1 Dolega  1      NA
## 2 Dolega  2 -4.115903e-11
## 3 Dolega  3 -3.360621e-11
## 4 Dolega  4  2.333646e+00
## 5 Dolega  5  2.333646e+00
## 6 Dolega  6  3.992382e-01
## 7 Dolega  7  7.216396e-01
## 8 Dolega  8 -4.847621e-02
## 9 Dolega  9 -8.762931e-01
## 10 Dolega 10 -6.307507e-01
## 11 Dolega 11 -5.009936e-01
## 12 Dolega 12 -2.432991e-01
## 13 Dolega 13 -8.901764e-01
## 14 Dolega 14 -6.934741e-01
## 15 Dolega 15 -5.486839e-01
##      Fecha Susceptibles Infectados Recuperados
## 1 2020-06-06      11998           0           0
## 2 2020-06-07      11998           0           0
## 3 2020-06-08      11998           0           0
## 4 2020-06-09      11989           2           7
## 5 2020-06-10      11998           0           0
## 6 2020-06-11      11997           1           0
## 7 2020-06-12      11998           0           0
## 8 2020-06-13      11998           0           0
## 9 2020-06-14      11998           0           0
## 10 2020-06-15      11998           0           0
## 11 2020-06-16      11998           0           0
## 12 2020-06-17      11998           0           0
## 13 2020-06-18      11997           1           0
## 14 2020-06-19      11998           0           0
## 15 2020-06-20      11998           0           0
## [1] 0 0 0 7 0 0 0 0 0 0 0 0 0 0 0
## [1] 112691.2 112691.2 112691.2 112682.2 112691.2 112690.2 112691.2 112691.2
## [9] 112691.2 112691.2 112691.2 112691.2 112690.2 112691.2 112691.2
##      comu  x      a
## 1 Donoso  1      NA
## 2 Donoso  2 -1.028976e-11
## 3 Donoso  3 -8.401552e-12
## 4 Donoso  4  1.286197e+00
## 5 Donoso  5  1.286197e+00
## 6 Donoso  6  1.257624e+00
## 7 Donoso  7  1.262386e+00
## 8 Donoso  8  1.265788e+00
## 9 Donoso  9  1.268339e+00
## 10 Donoso 10  1.270323e+00
## 11 Donoso 11  1.271910e+00
## 12 Donoso 12  1.273209e+00
## 13 Donoso 13  1.262386e+00
## 14 Donoso 14  1.264218e+00
## 15 Donoso 15  1.265788e+00
##      Fecha Susceptibles Infectados Recuperados
## 1 2020-06-06      10135           0           0
## 2 2020-06-07      10135           0           0

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## 3 2020-06-08      10135      0      0
## 4 2020-06-09      10135      0      0
## 5 2020-06-10      10135      0      0
## 6 2020-06-11      10135      0      0
## 7 2020-06-12      10135      0      0
## 8 2020-06-13      10135      0      0
## 9 2020-06-14      10135      0      0
## 10 2020-06-15      10135      0      0
## 11 2020-06-16      10135      0      0
## 12 2020-06-17      10135      0      0
## 13 2020-06-18      10122      1     12
## 14 2020-06-19      10135      0      0
## 15 2020-06-20      10135      0      0
## [1] 0 0 0 0 0 0 0 0 0 0 0 0 0 0 12 0 0
## [1] 93482.71 93482.71 93482.71 93482.71 93482.71 93482.71 93482.71 93482.71 93482.71
## [9] 93482.71 93482.71 93482.71 93482.71 93469.70 93482.71 93482.71
##      comu x      a
## 1  Gualaca 1      NA
## 2  Gualaca 2 -2.057952e-11
## 3  Gualaca 3 -1.680310e-11
## 4  Gualaca 4  0.000000e+00
## 5  Gualaca 5 -6.507814e-12
## 6  Gualaca 6 -5.940795e-12
## 7  Gualaca 7 -1.100021e-11
## 8  Gualaca 8  0.000000e+00
## 9  Gualaca 9 -9.701277e-12
## 10 Gualaca 10 0.000000e+00
## 11 Gualaca 11 0.000000e+00
## 12 Gualaca 12 -1.260233e-11
## 13 Gualaca 13  1.084029e+00
## 14 Gualaca 14  1.084029e+00
## 15 Gualaca 15  1.084029e+00
##      Fecha Susceptibles Infectados Recuperados
## 1 2020-06-06      10625      0      0
## 2 2020-06-07      10625      0      0
## 3 2020-06-08      10625      0      0
## 4 2020-06-09      10596     18     11
## 5 2020-06-10      10625      0      0
## 6 2020-06-11      10602     19      4
## 7 2020-06-12      10625      0      0
## 8 2020-06-13      10573     21     31
## 9 2020-06-14      10618      7      0
## 10 2020-06-15      10617      8      0
## 11 2020-06-16      10616      9      0
## 12 2020-06-17      10625      0      0
## 13 2020-06-18      10608     17      0
## 14 2020-06-19      10623      2      0
## 15 2020-06-20      10589     29      7
## [1] 0 0 0 11 0 4 0 31 0 0 0 0 0 0 0 7
## [1] 98504.00 98504.00 98504.00 98474.96 98504.00 98480.98 98504.00 98451.88
## [9] 98497.00 98496.00 98495.00 98504.00 98486.99 98502.00 98467.94
##      comu x      a
## 1  Guararé 1      NA
## 2  Guararé 2 -2.057952e-11

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## 3  Guararé 3 -1.680310e-11
## 4  Guararé 4  2.639968e+00
## 5  Guararé 5  2.639968e+00
## 6  Guararé 6  2.827884e+00
## 7  Guararé 7  2.860739e+00
## 8  Guararé 8  1.713723e+00
## 9  Guararé 9  1.691024e+00
## 10 Guararé 10 1.668755e+00
## 11 Guararé 11 1.646774e+00
## 12 Guararé 12 1.666606e+00
## 13 Guararé 13 1.618484e+00
## 14 Guararé 14 1.630432e+00
## 15 Guararé 15 1.700832e+00
##      Fecha Susceptibles Infectados Recuperados
## 1  2020-06-06      22834           0           0
## 2  2020-06-07      22834           0           0
## 3  2020-06-08      22834           0           0
## 4  2020-06-09      22833           1           0
## 5  2020-06-10      22834           0           0
## 6  2020-06-11      22828           2           4
## 7  2020-06-12      22834           0           0
## 8  2020-06-13      22815           2          17
## 9  2020-06-14      22833           1           0
## 10 2020-06-15      22833           1           0
## 11 2020-06-16      22833           1           0
## 12 2020-06-17      22834           0           0
## 13 2020-06-18      22831           3           0
## 14 2020-06-19      22833           1           0
## 15 2020-06-20      22834           0           0
## [1] 0 0 0 0 0 0 4 0 17 0 0 0 0 0 0 0
## [1] 229162.2 229162.2 229162.2 229161.2 229162.2 229156.2 229162.2 229143.2
## [9] 229161.2 229161.2 229161.2 229162.2 229159.2 229161.2 229162.2
##      comu x      a
## 1  Jirondai 1      NA
## 2  Jirondai 2 -2.057952e-11
## 3  Jirondai 3 -3.360621e-11
## 4  Jirondai 4 -2.500055e-01
## 5  Jirondai 5 -2.000044e-01
## 6  Jirondai 6  1.450196e+00
## 7  Jirondai 7  1.458530e+00
## 8  Jirondai 8  1.116017e+00
## 9  Jirondai 9  1.109833e+00
## 10 Jirondai 10 1.105095e+00
## 11 Jirondai 11 1.101348e+00
## 12 Jirondai 12 1.104836e+00
## 13 Jirondai 13 1.089841e+00
## 14 Jirondai 14 1.088205e+00
## 15 Jirondai 15 1.091890e+00
##      Fecha Susceptibles Infectados Recuperados
## 1  2020-06-06      23035           0           0
## 2  2020-06-07      23035           0           0
## 3  2020-06-08      23035           0           0
## 4  2020-06-09      23028           6           1
## 5  2020-06-10      23035           0           0

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## 6 2020-06-11      23030      4      1
## 7 2020-06-12      23035      0      0
## 8 2020-06-13      23015      8     12
## 9 2020-06-14      23031      4      0
## 10 2020-06-15      23034      1      0
## 11 2020-06-16      23035      0      0
## 12 2020-06-17      23035      0      0
## 13 2020-06-18      23031      4      0
## 14 2020-06-19      23032      1      2
## 15 2020-06-20      23030      5      0
## [1] 0 0 0 1 0 1 0 12 0 0 0 0 0 2 0
## [1] 231381.3 231381.3 231381.3 231374.3 231381.3 231376.3 231381.3 231361.3
## [9] 231377.3 231380.3 231381.3 231381.3 231377.3 231378.3 231376.3
##      comu x      a
## 1 Kankintú 1      NA
## 2 Kankintú 2 -2.057952e-11
## 3 Kankintú 3 -3.360621e-11
## 4 Kankintú 4 7.001064e+00
## 5 Kankintú 5 7.001064e+00
## 6 Kankintú 6 6.000803e+00
## 7 Kankintú 7 6.000803e+00
## 8 Kankintú 8 1.613892e+00
## 9 Kankintú 9 1.578536e+00
## 10 Kankintú 10 1.584580e+00
## 11 Kankintú 11 1.599302e+00
## 12 Kankintú 12 1.611260e+00
## 13 Kankintú 13 1.588262e+00
## 14 Kankintú 14 1.577716e+00
## 15 Kankintú 15 1.548348e+00
##      Fecha Susceptibles Infectados Recuperados
## 1 2020-06-06      20315      0      0
## 2 2020-06-07      20315      0      0
## 3 2020-06-08      20315      0      0
## 4 2020-06-09      20295     15      5
## 5 2020-06-10      20315      0      0
## 6 2020-06-11      20302      7      6
## 7 2020-06-12      20315      0      0
## 8 2020-06-13      20275     10     30
## 9 2020-06-14      20309      6      0
## 10 2020-06-15      20306      8      1
## 11 2020-06-16      20312      3      0
## 12 2020-06-17      20315      0      0
## 13 2020-06-18      20290     24      1
## 14 2020-06-19      20295     13      7
## 15 2020-06-20      20298     17      0
## [1] 0 0 0 5 0 6 0 30 0 1 0 0 1 7 0
## [1] 201506.8 201506.8 201506.8 201486.8 201506.8 201493.8 201506.8 201466.8
## [9] 201500.8 201497.8 201503.8 201506.8 201481.8 201486.8 201489.8
##      comu x      a
## 1 Kusapín 1      NA
## 2 Kusapín 2 -4.115903e-11
## 3 Kusapín 3 -3.360621e-11
## 4 Kusapín 4 4.001970e+00
## 5 Kusapín 5 4.001970e+00

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## 6 Kusapín 6 2.878740e+00
## 7 Kusapín 7 2.886815e+00
## 8 Kusapín 8 1.338250e+00
## 9 Kusapín 9 1.316316e+00
## 10 Kusapín 10 1.296363e+00
## 11 Kusapín 11 1.298081e+00
## 12 Kusapín 12 1.312345e+00
## 13 Kusapín 13 1.254121e+00
## 14 Kusapín 14 1.280658e+00
## 15 Kusapín 15 1.233889e+00
##      Fecha Susceptibles Infectados Recuperados
## 1 2020-06-06      193709           0           0
## 2 2020-06-07      193709           0           0
## 3 2020-06-08      193709           0           0
## 4 2020-06-09      193598          82          29
## 5 2020-06-10      193709           0           0
## 6 2020-06-11      193623          74          12
## 7 2020-06-12      193709           0           0
## 8 2020-06-13      193565          54          90
## 9 2020-06-14      193692          17           0
## 10 2020-06-15      193674          33           2
## 11 2020-06-16      193690          19           0
## 12 2020-06-17      193709           0           0
## 13 2020-06-18      193624          63          22
## 14 2020-06-19      193642          58           9
## 15 2020-06-20      193637          70           2
## [1] 0 0 0 29 0 12 0 90 0 2 0 0 22 9 2
## [1] 2358235 2358235 2358235 2358124 2358235 2358149 2358235 2358091 2358218
## [10] 2358200 2358216 2358235 2358150 2358168 2358163
##      comu x      a
## 1 La Chorrera 1      NA
## 2 La Chorrera 2 -3.292723e-10
## 3 La Chorrera 3 -2.688497e-10
## 4 La Chorrera 4 3.828683e+00
## 5 La Chorrera 5 3.828683e+00
## 6 La Chorrera 6 4.122446e+00
## 7 La Chorrera 7 4.159182e+00
## 8 La Chorrera 8 1.676022e+00
## 9 La Chorrera 9 1.672357e+00
## 10 La Chorrera 10 1.647332e+00
## 11 La Chorrera 11 1.644747e+00
## 12 La Chorrera 12 1.670331e+00
## 13 La Chorrera 13 1.712650e+00
## 14 La Chorrera 14 1.700794e+00
## 15 La Chorrera 15 1.644871e+00
##      Fecha Susceptibles Infectados Recuperados
## 1 2020-06-06      11452           0           0
## 2 2020-06-07      11452           0           0
## 3 2020-06-08      11452           0           0
## 4 2020-06-09      11452           0           0
## 5 2020-06-10      11452           0           0
## 6 2020-06-11      11452           0           0
## 7 2020-06-12      11452           0           0
## 8 2020-06-13      11452           0           0

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## 9 2020-06-14      11452      0      0
## 10 2020-06-15      11452      0      0
## 11 2020-06-16      11452      0      0
## 12 2020-06-17      11452      0      0
## 13 2020-06-18      11451      1      0
## 14 2020-06-19      11452      0      0
## 15 2020-06-20      11452      0      0
## [1] 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
## [1] 107029.5 107029.5 107029.5 107029.5 107029.5 107029.5 107029.5 107029.5
## [9] 107029.5 107029.5 107029.5 107029.5 107028.5 107029.5 107029.5
##      comu x      a
## 1 La Mesa 1      NA
## 2 La Mesa 2 -1.028976e-11
## 3 La Mesa 3 0.000000e+00
## 4 La Mesa 4 0.000000e+00
## 5 La Mesa 5 -1.301563e-11
## 6 La Mesa 6 -1.188159e-11
## 7 La Mesa 7 -1.650032e-11
## 8 La Mesa 8 -5.144879e-12
## 9 La Mesa 9 0.000000e+00
## 10 La Mesa 10 -4.601720e-12
## 11 La Mesa 11 -4.387568e-12
## 12 La Mesa 12 0.000000e+00
## 13 La Mesa 13 -7.692644e-02
## 14 La Mesa 14 -7.143169e-02
## 15 La Mesa 15 -6.666958e-02
##      Fecha Susceptibles Infectados Recuperados
## 1 2020-06-06      27840      0      0
## 2 2020-06-07      27840      0      0
## 3 2020-06-08      27840      0      0
## 4 2020-06-09      27823      17      0
## 5 2020-06-10      27840      0      0
## 6 2020-06-11      27827      11      2
## 7 2020-06-12      27840      0      0
## 8 2020-06-13      27797      10      33
## 9 2020-06-14      27830      10      0
## 10 2020-06-15      27835      5      0
## 11 2020-06-16      27823      17      0
## 12 2020-06-17      27840      0      0
## 13 2020-06-18      27826      14      0
## 14 2020-06-19      27830      6      4
## 15 2020-06-20      27833      4      3
## [1] 0 0 0 0 0 0 2 0 33 0 0 0 0 0 4 3
## [1] 284920.9 284920.9 284920.9 284903.9 284920.9 284907.9 284920.9 284877.9
## [9] 284910.9 284915.9 284903.9 284920.9 284906.9 284910.9 284913.9
##      comu x      a
## 1 La Pintada 1      NA
## 2 La Pintada 2 -4.115903e-11
## 3 La Pintada 3 -3.360621e-11
## 4 La Pintada 4 -4.251298e+00
## 5 La Pintada 5 -3.401038e+00
## 6 La Pintada 6 4.800999e+00
## 7 La Pintada 7 5.084419e+00
## 8 La Pintada 8 1.198613e+00

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## 9 La Pintada 9 1.173759e+00
## 10 La Pintada 10 1.172540e+00
## 11 La Pintada 11 1.132656e+00
## 12 La Pintada 12 1.150158e+00
## 13 La Pintada 13 1.126964e+00
## 14 La Pintada 14 1.126200e+00
## 15 La Pintada 15 1.125708e+00
##      Fecha Susceptibles Infectados Recuperados
## 1 2020-06-06      7314           0           0
## 2 2020-06-07      7314           0           0
## 3 2020-06-08      7314           0           0
## 4 2020-06-09      7286          25           3
## 5 2020-06-10      7314           0           0
## 6 2020-06-11      7302          12           0
## 7 2020-06-12      7314           0           0
## 8 2020-06-13      7314           0           0
## 9 2020-06-14      7314           0           0
## 10 2020-06-15      7314           0           0
## 11 2020-06-16      7303          11           0
## 12 2020-06-17      7314           0           0
## 13 2020-06-18      7313           1           0
## 14 2020-06-19      7314           0           0
## 15 2020-06-20      7307           7           0
## [1] 0 0 0 3 0 0 0 0 0 0 0 0 0 0 0 0
## [1] 65076.65 65076.65 65076.65 65048.59 65076.65 65064.64 65076.65 65076.65
## [9] 65076.65 65076.65 65065.64 65076.65 65075.65 65076.65 65069.65
##      comu x      a
## 1 Las Minas 1      NA
## 2 Las Minas 2 -5.144879e-12
## 3 Las Minas 3 -1.260233e-11
## 4 Las Minas 4 9.351244e+00
## 5 Las Minas 5 9.351244e+00
## 6 Las Minas 6 8.550587e+00
## 7 Las Minas 7 8.684030e+00
## 8 Las Minas 8 8.779346e+00
## 9 Las Minas 9 8.850834e+00
## 10 Las Minas 10 8.906435e+00
## 11 Las Minas 11 8.583973e+00
## 12 Las Minas 12 8.653725e+00
## 13 Las Minas 13 8.684072e+00
## 14 Las Minas 14 8.735393e+00
## 15 Las Minas 15 8.612636e+00
##      Fecha Susceptibles Infectados Recuperados
## 1 2020-06-06      17568           0           0
## 2 2020-06-07      17568           0           0
## 3 2020-06-08      17568           0           0
## 4 2020-06-09      17485          54          29
## 5 2020-06-10      17568           0           0
## 6 2020-06-11      17500          48          20
## 7 2020-06-12      17568           0           0
## 8 2020-06-13      17456          42          70
## 9 2020-06-14      17527          41           0
## 10 2020-06-15      17526          41           1
## 11 2020-06-16      17499           9          60

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## 12 2020-06-17      17568      0      0
## 13 2020-06-18      17461     47     60
## 14 2020-06-19      17536     22     10
## 15 2020-06-20      17536     32      0
## [1] 0 0 0 29 0 20 0 70 0 1 60 0 60 10 0
## [1] 171706.7 171706.7 171706.7 171623.5 171706.7 171638.6 171706.7 171594.4
## [9] 171665.7 171664.7 171637.6 171706.7 171599.4 171674.7 171674.7
##      comu x      a
## 1 Las Palmas 1      NA
## 2 Las Palmas 2 0.000000e+00
## 3 Las Palmas 3 -3.360621e-11
## 4 Las Palmas 4 2.868851e+00
## 5 Las Palmas 5 2.868851e+00
## 6 Las Palmas 6 3.020209e+00
## 7 Las Palmas 7 3.024546e+00
## 8 Las Palmas 8 1.765801e+00
## 9 Las Palmas 9 1.666354e+00
## 10 Las Palmas 10 1.599546e+00
## 11 Las Palmas 11 1.327830e+00
## 12 Las Palmas 12 1.362088e+00
## 13 Las Palmas 13 1.415102e+00
## 14 Las Palmas 14 1.411817e+00
## 15 Las Palmas 15 1.380233e+00
##      Fecha Susceptibles Infectados Recuperados
## 1 2020-06-06      28110      0      0
## 2 2020-06-07      28110      0      0
## 3 2020-06-08      28110      0      0
## 4 2020-06-09      27853     78     179
## 5 2020-06-10      28110      0      0
## 6 2020-06-11      28012     58     40
## 7 2020-06-12      28110      0      0
## 8 2020-06-13      27952     41     117
## 9 2020-06-14      28091     19      0
## 10 2020-06-15      28085     22      3
## 11 2020-06-16      28096     14      0
## 12 2020-06-17      28110      0      0
## 13 2020-06-18      28067     42      1
## 14 2020-06-19      28033     50     27
## 15 2020-06-20      28061     44      5
## [1] 0 0 0 179 0 40 0 117 0 3 0 0 1 27 5
## [1] 287955.5 287955.5 287955.5 287697.3 287955.5 287857.3 287955.5 287797.0
## [9] 287936.5 287930.5 287941.5 287955.5 287912.5 287878.4 287906.4
##      comu x      a
## 1 Las Tablas 1      NA
## 2 Las Tablas 2 -4.115903e-11
## 3 Las Tablas 3 -3.360621e-11
## 4 Las Tablas 4 1.442358e+00
## 5 Las Tablas 5 1.442358e+00
## 6 Las Tablas 6 1.447881e+00
## 7 Las Tablas 7 1.455524e+00
## 8 Las Tablas 8 1.416642e+00
## 9 Las Tablas 9 1.401450e+00
## 10 Las Tablas 10 1.389541e+00
## 11 Las Tablas 11 1.385174e+00

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## 12 Las Tablas 12 1.392196e+00
## 13 Las Tablas 13 1.370452e+00
## 14 Las Tablas 14 1.371036e+00
## 15 Las Tablas 15 1.356451e+00
##      Fecha Susceptibles Infectados Recuperados
## 1  2020-06-06      7418          0          0
## 2  2020-06-07      7418          0          0
## 3  2020-06-08      7418          0          0
## 4  2020-06-09      7416          2          0
## 5  2020-06-10      7418          0          0
## 6  2020-06-11      7414          4          0
## 7  2020-06-12      7418          0          0
## 8  2020-06-13      7414          1          3
## 9  2020-06-14      7418          0          0
## 10 2020-06-15      7418          0          0
## 11 2020-06-16      7417          1          0
## 12 2020-06-17      7418          0          0
## 13 2020-06-18      7417          1          0
## 14 2020-06-19      7413          5          0
## 15 2020-06-20      7418          0          0
## [1] 0 0 0 0 0 0 0 3 0 0 0 0 0 0 0
## [1] 66106.73 66106.73 66106.73 66104.73 66106.73 66102.73 66106.73 66102.73
## [9] 66106.73 66106.73 66105.73 66106.73 66105.73 66101.73 66106.73
##      comu x      a
## 1  Los Pozos 1      NA
## 2  Los Pozos 2 0.000000e+00
## 3  Los Pozos 3 -8.401552e-12
## 4  Los Pozos 4 -5.000674e-01
## 5  Los Pozos 5 -4.000539e-01
## 6  Los Pozos 6 -6.833011e-01
## 7  Los Pozos 7 -5.949098e-01
## 8  Los Pozos 8 1.047914e+00
## 9  Los Pozos 9 1.083637e+00
## 10 Los Pozos 10 1.111421e+00
## 11 Los Pozos 11 1.100312e+00
## 12 Los Pozos 12 1.121529e+00
## 13 Los Pozos 13 1.111430e+00
## 14 Los Pozos 14 1.000278e+00
## 15 Los Pozos 15 1.024094e+00
##      Fecha Susceptibles Infectados Recuperados
## 1  2020-06-06      26043          0          0
## 2  2020-06-07      26043          0          0
## 3  2020-06-08      26043          0          0
## 4  2020-06-09      26041          2          0
## 5  2020-06-10      26043          0          0
## 6  2020-06-11      26043          0          0
## 7  2020-06-12      26043          0          0
## 8  2020-06-13      26041          1          1
## 9  2020-06-14      26043          0          0
## 10 2020-06-15      26041          2          0
## 11 2020-06-16      26043          0          0
## 12 2020-06-17      26043          0          0
## 13 2020-06-18      26038          4          1
## 14 2020-06-19      26042          1          0

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## 15 2020-06-20      26043      0      0
## [1] 0 0 0 0 0 0 0 1 0 0 0 0 1 0 0
## [1] 264792.3 264792.3 264792.3 264790.3 264792.3 264792.3 264792.3 264790.3
## [9] 264792.3 264790.3 264792.3 264792.3 264787.3 264791.3 264792.3
##      comu x      a
## 1  Los Santos 1      NA
## 2  Los Santos 2  0.000000e+00
## 3  Los Santos 3 -6.721242e-11
## 4  Los Santos 4 -5.000192e-01
## 5  Los Santos 5 -4.000154e-01
## 6  Los Santos 6 -3.333461e-01
## 7  Los Santos 7 -2.857253e-01
## 8  Los Santos 8  1.714352e+00
## 9  Los Santos 9  1.750067e+00
## 10 Los Santos 10 1.555615e+00
## 11 Los Santos 11 1.600061e+00
## 12 Los Santos 12 1.636426e+00
## 13 Los Santos 13 3.136628e+00
## 14 Los Santos 14 3.083597e+00
## 15 Los Santos 15 3.115650e+00
##      Fecha Susceptibles Infectados Recuperados
## 1  2020-06-06      8852      0      0
## 2  2020-06-07      8852      0      0
## 3  2020-06-08      8852      0      0
## 4  2020-06-09      8752     51     49
## 5  2020-06-10      8852      0      0
## 6  2020-06-11      8747     72     33
## 7  2020-06-12      8852      0      0
## 8  2020-06-13      8649     70    133
## 9  2020-06-14      8822     30      0
## 10 2020-06-15      8781     70      1
## 11 2020-06-16      8814     37      1
## 12 2020-06-17      8852      0      0
## 13 2020-06-18      8773     79      0
## 14 2020-06-19      8773     48     31
## 15 2020-06-20      8812     40      0
## [1] 0 0 0 49 0 33 0 133 0 1 1 0 0 31 0
## [1] 80450.51 80450.51 80450.51 80349.94 80450.51 80344.88 80450.51 80245.14
## [9] 80420.45 80379.22 80412.42 80450.51 80371.15 80371.15 80410.41
##      comu x      a
## 1  Macaracas 1      NA
## 2  Macaracas 2 -1.028976e-11
## 3  Macaracas 3 -8.401552e-12
## 4  Macaracas 4  2.052431e+00
## 5  Macaracas 5  2.052431e+00
## 6  Macaracas 6  2.361668e+00
## 7  Macaracas 7  2.371347e+00
## 8  Macaracas 8  1.601617e+00
## 9  Macaracas 9  1.569380e+00
## 10 Macaracas 10 1.496857e+00
## 11 Macaracas 11 1.477324e+00
## 12 Macaracas 12 1.499272e+00
## 13 Macaracas 13 1.441709e+00
## 14 Macaracas 14 1.449374e+00

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## 15 Macaracas 15 1.435561e+00
##      Fecha Susceptibles Infectados Recuperados
## 1  2020-06-06          5280           0           0
## 2  2020-06-07          5280           0           0
## 3  2020-06-08          5280           0           0
## 4  2020-06-09          5280           0           0
## 5  2020-06-10          5280           0           0
## 6  2020-06-11          5280           0           0
## 7  2020-06-12          5280           0           0
## 8  2020-06-13          5276           4           0
## 9  2020-06-14          5280           0           0
## 10 2020-06-15          5280           0           0
## 11 2020-06-16          5279           1           0
## 12 2020-06-17          5280           0           0
## 13 2020-06-18          5277           3           0
## 14 2020-06-19          5280           0           0
## 15 2020-06-20          5279           1           0
## [1] 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
## [1] 45258.48 45258.48 45258.48 45258.48 45258.48 45258.48 45258.48 45254.48
## [9] 45258.48 45258.48 45257.48 45258.48 45255.48 45258.48 45257.48
##      comu x          a
## 1  Mariato 1          NA
## 2  Mariato 2 -5.144879e-12
## 3  Mariato 3 -8.401552e-12
## 4  Mariato 4 -3.637979e-12
## 5  Mariato 5 0.000000e+00
## 6  Mariato 6 -2.970397e-12
## 7  Mariato 7 -5.500107e-12
## 8  Mariato 8 -5.001895e-01
## 9  Mariato 9 -4.446129e-01
## 10 Mariato 10 -4.001516e-01
## 11 Mariato 11 -3.660369e-01
## 12 Mariato 12 -3.362859e-01
## 13 Mariato 13 -3.676966e-01
## 14 Mariato 14 -3.432488e-01
## 15 Mariato 15 -3.208215e-01
##      Fecha Susceptibles Infectados Recuperados
## 1  2020-06-06          19909           0           0
## 2  2020-06-07          19909           0           0
## 3  2020-06-08          19909           0           0
## 4  2020-06-09          19909           0           0
## 5  2020-06-10          19909           0           0
## 6  2020-06-11          19909           0           0
## 7  2020-06-12          19909           0           0
## 8  2020-06-13          19907           1           1
## 9  2020-06-14          19909           0           0
## 10 2020-06-15          19909           0           0
## 11 2020-06-16          19909           0           0
## 12 2020-06-17          19909           0           0
## 13 2020-06-18          19909           0           0
## 14 2020-06-19          19909           0           0
## 15 2020-06-20          19909           0           0
## [1] 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0
## [1] 197077.7 197077.7 197077.7 197077.7 197077.7 197077.7 197077.7 197075.7

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## [9] 197077.7 197077.7 197077.7 197077.7 197077.7 197077.7 197077.7
##      comu  x              a
## 1  Mironó  1              NA
## 2  Mironó  2  0.000000e+00
## 3  Mironó  3 -1.680310e-11
## 4  Mironó  4  0.000000e+00
## 5  Mironó  5  0.000000e+00
## 6  Mironó  6 -1.188159e-11
## 7  Mironó  7 -1.100021e-11
## 8  Mironó  8  2.000100e+00
## 9  Mironó  9  2.000100e+00
## 10 Mironó 10  2.000100e+00
## 11 Mironó 11  2.000100e+00
## 12 Mironó 12  2.000100e+00
## 13 Mironó 13  2.000100e+00
## 14 Mironó 14  2.000100e+00
## 15 Mironó 15  2.000100e+00
##      Fecha Susceptibles Infectados Recuperados
## 1  2020-06-06          6723           0           0
## 2  2020-06-07          6723           0           0
## 3  2020-06-08          6723           0           0
## 4  2020-06-09          6691          26           6
## 5  2020-06-10          6723           0           0
## 6  2020-06-11          6698          20           5
## 7  2020-06-12          6723           0           0
## 8  2020-06-13          6666          28          29
## 9  2020-06-14          6715           5           3
## 10 2020-06-15          6717           4           2
## 11 2020-06-16          6720           2           1
## 12 2020-06-17          6723           0           0
## 13 2020-06-18          6701          21           1
## 14 2020-06-19          6714           2           7
## 15 2020-06-20          6714           9           0
## [1] 0 0 0 6 0 5 0 29 3 2 1 0 1 7 0
## [1] 59251.75 59251.75 59251.75 59219.67 59251.75 59226.70 59251.75 59194.50
## [9] 59243.74 59245.74 59248.75 59251.75 59229.71 59242.74 59242.74
##      comu  x              a
## 1  Montijo  1              NA
## 2  Montijo  2  0.000000e+00
## 3  Montijo  3 -8.401552e-12
## 4  Montijo  4  5.346067e+00
## 5  Montijo  5  5.346067e+00
## 6  Montijo  6  5.215491e+00
## 7  Montijo  7  5.214009e+00
## 8  Montijo  8  2.002719e+00
## 9  Montijo  9  2.008478e+00
## 10 Montijo 10  2.015548e+00
## 11 Montijo 11  2.027781e+00
## 12 Montijo 12  2.045730e+00
## 13 Montijo 13  1.986620e+00
## 14 Montijo 14  1.947138e+00
## 15 Montijo 15  1.924206e+00
##      Fecha Susceptibles Infectados Recuperados
## 1  2020-06-06          40320           0           0

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## 2 2020-06-07      40320      0      0
## 3 2020-06-08      40320      0      0
## 4 2020-06-09      40271     29     20
## 5 2020-06-10      40320      0      0
## 6 2020-06-11      40299     13      8
## 7 2020-06-12      40320      0      0
## 8 2020-06-13      40253     28     39
## 9 2020-06-14      40312      8      0
## 10 2020-06-15      40312      8      0
## 11 2020-06-16      40308     12      0
## 12 2020-06-17      40320      0      0
## 13 2020-06-18      40290     29      1
## 14 2020-06-19      40302     11      7
## 15 2020-06-20      40283     37      0
## [1] 0 0 0 20 0 8 0 39 0 0 0 0 1 7 0
## [1] 427577.6 427577.6 427577.6 427528.6 427577.6 427556.6 427577.6 427510.5
## [9] 427569.6 427569.6 427565.6 427577.6 427547.6 427559.6 427540.6
##      comu      x      a
## 1  Müna  1      NA
## 2  Müna  2  0.000000e+00
## 3  Müna  3 -3.360621e-11
## 4  Müna  4  2.451490e+00
## 5  Müna  5  2.451490e+00
## 6  Müna  6  2.465425e+00
## 7  Müna  7  2.467326e+00
## 8  Müna  8  1.837012e+00
## 9  Müna  9  1.805709e+00
## 10 Müna 10  1.782496e+00
## 11 Müna 11  1.749142e+00
## 12 Müna 12  1.764235e+00
## 13 Müna 13  1.701073e+00
## 14 Müna 14  1.701059e+00
## 15 Müna 15  1.607964e+00
##      Fecha Susceptibles Infectados Recuperados
## 1 2020-06-06      20225      0      0
## 2 2020-06-07      20225      0      0
## 3 2020-06-08      20225      0      0
## 4 2020-06-09      20199     24      2
## 5 2020-06-10      20225      0      0
## 6 2020-06-11      20211     13      1
## 7 2020-06-12      20225      0      0
## 8 2020-06-13      20195     11     19
## 9 2020-06-14      20220      5      0
## 10 2020-06-15      20219      5      1
## 11 2020-06-16      20219      6      0
## 12 2020-06-17      20225      0      0
## 13 2020-06-18      20213     12      0
## 14 2020-06-19      20212      9      4
## 15 2020-06-20      20215      9      1
## [1] 0 0 0 2 0 1 0 19 0 1 0 0 0 4 1
## [1] 200524.3 200524.3 200524.3 200498.3 200524.3 200510.3 200524.3 200494.3
## [9] 200519.3 200518.3 200518.3 200524.3 200512.3 200511.3 200514.3
##      comu      x      a
## 1  Natá  1      NA

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## 2 Natá 2 -4.115903e-11
## 3 Natá 3 -3.360621e-11
## 4 Natá 4 1.300836e+01
## 5 Natá 5 1.300836e+01
## 6 Natá 6 1.315072e+01
## 7 Natá 7 1.316167e+01
## 8 Natá 8 1.452834e+00
## 9 Natá 9 1.450952e+00
## 10 Natá 10 1.451952e+00
## 11 Natá 11 1.443849e+00
## 12 Natá 12 1.472899e+00
## 13 Natá 13 1.431840e+00
## 14 Natá 14 1.445554e+00
## 15 Natá 15 1.436825e+00
##      Fecha Susceptibles Infectados Recuperados
## 1 2020-06-06      20013           0           0
## 2 2020-06-07      20013           0           0
## 3 2020-06-08      20013           0           0
## 4 2020-06-09      20001           7           5
## 5 2020-06-10      20013           0           0
## 6 2020-06-11      19997           8           8
## 7 2020-06-12      20013           0           0
## 8 2020-06-13      19980           7          26
## 9 2020-06-14      20007           6           0
## 10 2020-06-15      20007           5           1
## 11 2020-06-16      20011           2           0
## 12 2020-06-17      20013           0           0
## 13 2020-06-18      20005           8           0
## 14 2020-06-19      20012           1           0
## 15 2020-06-20      20000          12           1
## [1] 0 0 0 5 0 8 0 26 0 1 0 0 0 0 1
## [1] 198211.5 198211.5 198211.5 198199.5 198211.5 198195.5 198211.5 198178.5
## [9] 198205.5 198205.5 198209.5 198211.5 198203.5 198210.5 198198.5
##      comu x      a
## 1 Nole Duima 1      NA
## 2 Nole Duima 2 -2.057952e-11
## 3 Nole Duima 3 -3.360621e-11
## 4 Nole Duima 4 2.400720e+00
## 5 Nole Duima 5 2.400720e+00
## 6 Nole Duima 6 2.093932e+00
## 7 Nole Duima 7 2.097697e+00
## 8 Nole Duima 8 1.303276e+00
## 9 Nole Duima 9 1.268924e+00
## 10 Nole Duima 10 1.255152e+00
## 11 Nole Duima 11 1.256812e+00
## 12 Nole Duima 12 1.268674e+00
## 13 Nole Duima 13 1.240068e+00
## 14 Nole Duima 14 1.246960e+00
## 15 Nole Duima 15 1.222302e+00
##      Fecha Susceptibles Infectados Recuperados
## 1 2020-06-06      16737           0           0
## 2 2020-06-07      16737           0           0
## 3 2020-06-08      16737           0           0
## 4 2020-06-09      16733           2           2

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## 5 2020-06-10      16737      0      0
## 6 2020-06-11      16733      0      4
## 7 2020-06-12      16737      0      0
## 8 2020-06-13      16721      8      8
## 9 2020-06-14      16736      1      0
## 10 2020-06-15     16728      4      5
## 11 2020-06-16     16737      0      0
## 12 2020-06-17     16737      0      0
## 13 2020-06-18     16733      4      0
## 14 2020-06-19     16735      1      1
## 15 2020-06-20     16731      6      0
## [1] 0 0 0 2 0 4 0 8 0 5 0 0 0 1 0
## [1] 162773.6 162773.6 162773.6 162769.6 162773.6 162769.6 162773.6 162757.6
## [9] 162772.6 162764.6 162773.6 162773.6 162769.6 162771.6 162767.6
##      comu      x      a
## 1  Ñürün  1      NA
## 2  Ñürün  2 -2.057952e-11
## 3  Ñürün  3 -1.680310e-11
## 4  Ñürün  4  2.000239e+00
## 5  Ñürün  5  2.000239e+00
## 6  Ñürün  6  1.142994e+00
## 7  Ñürün  7  1.153984e+00
## 8  Ñürün  8  1.849563e+00
## 9  Ñürün  9  1.818671e+00
## 10 Ñürün 10  1.816943e+00
## 11 Ñürün 11  1.815785e+00
## 12 Ñürün 12  1.814894e+00
## 13 Ñürün 13  1.742208e+00
## 14 Ñürün 14  1.742838e+00
## 15 Ñürün 15  1.652712e+00
##      Fecha Susceptibles Infectados Recuperados
## 1 2020-06-06      15406      0      0
## 2 2020-06-07      15406      0      0
## 3 2020-06-08      15406      0      0
## 4 2020-06-09      15406      0      0
## 5 2020-06-10      15406      0      0
## 6 2020-06-11      15405      1      0
## 7 2020-06-12      15406      0      0
## 8 2020-06-13      15406      0      0
## 9 2020-06-14      15406      0      0
## 10 2020-06-15     15406      0      0
## 11 2020-06-16     15406      0      0
## 12 2020-06-17     15406      0      0
## 13 2020-06-18     15406      0      0
## 14 2020-06-19     15406      0      0
## 15 2020-06-20     15406      0      0
## [1] 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
## [1] 148552.5 148552.5 148552.5 148552.5 148552.5 148551.5 148552.5 148552.5
## [9] 148552.5 148552.5 148552.5 148552.5 148552.5 148552.5 148552.5
##      comu      x      a
## 1  Ocú  1      NA
## 2  Ocú  2 -2.057952e-11
## 3  Ocú  3 -3.360621e-11
## 4  Ocú  4  0.000000e+00

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## 5    Ocú  5  0.000000e+00
## 6    Ocú  6 -1.666721e-01
## 7    Ocú  7 -1.428618e-01
## 8    Ocú  8 -1.250041e-01
## 9    Ocú  9 -1.111147e-01
## 10   Ocú 10 -1.000032e-01
## 11   Ocú 11 -9.091204e-02
## 12   Ocú 12 -8.333604e-02
## 13   Ocú 13 -7.692557e-02
## 14   Ocú 14 -7.143089e-02
## 15   Ocú 15 -6.666883e-02
##      Fecha Susceptibles Infectados Recuperados
## 1  2020-06-06          6371           0           0
## 2  2020-06-07          6371           0           0
## 3  2020-06-08          6371           0           0
## 4  2020-06-09          6363           8           0
## 5  2020-06-10          6371           0           0
## 6  2020-06-11          6364           7           0
## 7  2020-06-12          6371           0           0
## 8  2020-06-13          6353          15           3
## 9  2020-06-14          6371           0           0
## 10 2020-06-15          6371           0           0
## 11 2020-06-16          6368           3           0
## 12 2020-06-17          6371           0           0
## 13 2020-06-18          6365           6           0
## 14 2020-06-19          6370           1           0
## 15 2020-06-20          6371           0           0
## [1] 0 0 0 0 0 0 0 3 0 0 0 0 0 0 0
## [1] 55806.85 55806.85 55806.85 55798.84 55806.85 55799.85 55806.85 55788.82
## [9] 55806.85 55806.85 55803.85 55806.85 55800.85 55805.85 55806.85
##      comu x          a
## 1  Olá  1          NA
## 2  Olá  2 -5.144879e-12
## 3  Olá  3 -4.200776e-12
## 4  Olá  4 -2.001257e+00
## 5  Olá  5 -1.601005e+00
## 6  Olá  6 -1.587345e+00
## 7  Olá  7 -1.388331e+00
## 8  Olá  8  5.293784e+00
## 9  Olá  9  5.383122e+00
## 10 Olá 10  5.452608e+00
## 11 Olá 11  5.408173e+00
## 12 Olá 12  5.462747e+00
## 13 Olá 13  5.341481e+00
## 14 Olá 14  5.367146e+00
## 15 Olá 15  5.412956e+00
##      Fecha Susceptibles Infectados Recuperados
## 1  2020-06-06          2554           0           0
## 2  2020-06-07          2554           0           0
## 3  2020-06-08          2554           0           0
## 4  2020-06-09          2549           4           1
## 5  2020-06-10          2554           0           0
## 6  2020-06-11          2548           5           1
## 7  2020-06-12          2554           0           0

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## 8 2020-06-13      2525      8      21
## 9 2020-06-14      2552      2      0
## 10 2020-06-15      2551      3      0
## 11 2020-06-16      2552      2      0
## 12 2020-06-17      2554      0      0
## 13 2020-06-18      2548      6      0
## 14 2020-06-19      2554      0      0
## 15 2020-06-20      2535     18      1
## [1] 0 0 0 1 0 1 0 21 0 0 0 0 0 0 1
## [1] 20037.19 20037.19 20037.19 20032.19 20037.19 20031.19 20037.19 20008.03
## [9] 20035.19 20034.19 20035.19 20037.19 20031.19 20037.19 20018.12
##      comu x      a
## 1 Omar Torrijos Herrera 1      NA
## 2 Omar Torrijos Herrera 2 0.000000e+00
## 3 Omar Torrijos Herrera 3 -2.100388e-12
## 4 Omar Torrijos Herrera 4 5.004901e+00
## 5 Omar Torrijos Herrera 5 5.004901e+00
## 6 Omar Torrijos Herrera 6 5.505980e+00
## 7 Omar Torrijos Herrera 7 5.505980e+00
## 8 Omar Torrijos Herrera 8 1.347886e+00
## 9 Omar Torrijos Herrera 9 1.342208e+00
## 10 Omar Torrijos Herrera 10 1.331917e+00
## 11 Omar Torrijos Herrera 11 1.329026e+00
## 12 Omar Torrijos Herrera 12 1.336282e+00
## 13 Omar Torrijos Herrera 13 1.315892e+00
## 14 Omar Torrijos Herrera 14 1.323041e+00
## 15 Omar Torrijos Herrera 15 1.299191e+00
##      Fecha Susceptibles Infectados Recuperados
## 1 2020-06-06      1044023      0      0
## 2 2020-06-07      1044021      1      1
## 3 2020-06-08      1044023      0      0
## 4 2020-06-09      1043610     284     129
## 5 2020-06-10      1044023      0      0
## 6 2020-06-11      1043690     247      86
## 7 2020-06-12      1044023      0      0
## 8 2020-06-13      1043241     285     497
## 9 2020-06-14      1043913     106      4
## 10 2020-06-15      1043831     187      5
## 11 2020-06-16      1043956      66      1
## 12 2020-06-17      1044023      0      0
## 13 2020-06-18      1043758     264      1
## 14 2020-06-19      1043762     162     99
## 15 2020-06-20      1043848     171      4
## [1] 0 1 0 129 0 86 0 497 4 5 1 0 1 99 4
## [1] 14468689 14468687 14468689 14468276 14468689 14468356 14468689 14467907
## [9] 14468579 14468497 14468622 14468689 14468424 14468428 14468514
##      comu x      a
## 1 Panamá 1      NA
## 2 Panamá 2 2.000002
## 3 Panamá 3 2.000002
## 4 Panamá 4 3.205234
## 5 Panamá 5 3.204450
## 6 Panamá 6 3.382072
## 7 Panamá 7 3.387284

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## 8 Panamá 8 1.611233
## 9 Panamá 9 1.591478
## 10 Panamá 10 1.552016
## 11 Panamá 11 1.553678
## 12 Panamá 12 1.572362
## 13 Panamá 13 1.524984
## 14 Panamá 14 1.529911
## 15 Panamá 15 1.511315
##      Fecha Susceptibles Infectados Recuperados
## 1 2020-06-06      8934           0           0
## 2 2020-06-07      8934           0           0
## 3 2020-06-08      8934           0           0
## 4 2020-06-09      8914           9          11
## 5 2020-06-10      8934           0           0
## 6 2020-06-11      8919           7           8
## 7 2020-06-12      8934           0           0
## 8 2020-06-13      8889          22          23
## 9 2020-06-14      8930           4           0
## 10 2020-06-15      8927           7           0
## 11 2020-06-16      8934           0           0
## 12 2020-06-17      8934           0           0
## 13 2020-06-18      8911          23           0
## 14 2020-06-19      8934           0           0
## 15 2020-06-20      8914          17           3
## [1] 0 0 0 11 0 8 0 23 0 0 0 0 0 0 0 3
## [1] 81278.13 81278.13 81278.13 81258.11 81278.13 81263.12 81278.13 81233.02
## [9] 81274.13 81271.13 81278.13 81278.13 81255.10 81278.13 81258.11
##      comu      x      a
## 1 Parita 1      NA
## 2 Parita 2 0.000000e+00
## 3 Parita 3 -8.401552e-12
## 4 Parita 4 1.820220e+00
## 5 Parita 5 1.820220e+00
## 6 Parita 6 1.837676e+00
## 7 Parita 7 1.838080e+00
## 8 Parita 8 1.939578e+00
## 9 Parita 9 1.902055e+00
## 10 Parita 10 1.851047e+00
## 11 Parita 11 1.860294e+00
## 12 Parita 12 1.867601e+00
## 13 Parita 13 1.744862e+00
## 14 Parita 14 1.760913e+00
## 15 Parita 15 1.760913e+00
##      Fecha Susceptibles Infectados Recuperados
## 1 2020-06-06      4480           0           0
## 2 2020-06-07      4480           0           0
## 3 2020-06-08      4480           0           0
## 4 2020-06-09      4479           1           0
## 5 2020-06-10      4480           0           0
## 6 2020-06-11      4469           1          10
## 7 2020-06-12      4480           0           0
## 8 2020-06-13      4473           7           0
## 9 2020-06-14      4480           0           0
## 10 2020-06-15      4480           0           0

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## 11 2020-06-16          4480          0          0
## 12 2020-06-17          4480          0          0
## 13 2020-06-18          4468          3          9
## 14 2020-06-19          4480          0          0
## 15 2020-06-20          4480          0          0
## [1] 0 0 0 0 0 10 0 0 0 0 0 0 0 9 0 0
## [1] 37665.05 37665.05 37665.05 37664.05 37665.05 37654.04 37665.05 37658.05
## [9] 37665.05 37665.05 37665.05 37665.05 37653.04 37665.05 37665.05
##      comu x          a
## 1  Pedaší 1          NA
## 2  Pedaší 2  0.000000e+00
## 3  Pedaší 3 -4.200776e-12
## 4  Pedaší 4 -2.500279e-01
## 5  Pedaší 5 -2.000223e-01
## 6  Pedaší 6  1.081350e+00
## 7  Pedaší 7  1.084684e+00
## 8  Pedaší 8  9.869871e-01
## 9  Pedaší 9  1.001283e+00
## 10 Pedaší 10 1.012402e+00
## 11 Pedaší 11 1.021297e+00
## 12 Pedaší 12 1.028575e+00
## 13 Pedaší 13 1.128501e+00
## 14 Pedaší 14 1.134953e+00
## 15 Pedaší 15 1.140414e+00
##      Fecha Susceptibles Infectados Recuperados
## 1  2020-06-06      93425          0          0
## 2  2020-06-07      93425          0          0
## 3  2020-06-08      93425          0          0
## 4  2020-06-09      93360         51         14
## 5  2020-06-10      93425          0          0
## 6  2020-06-11      93396         19         10
## 7  2020-06-12      93425          0          0
## 8  2020-06-13      93341         27         57
## 9  2020-06-14      93410         15          0
## 10 2020-06-15      93406         19          0
## 11 2020-06-16      93415         10          0
## 12 2020-06-17      93425          0          0
## 13 2020-06-18      93399         26          0
## 14 2020-06-19      93394         23          8
## 15 2020-06-20      93394         31          0
## [1] 0 0 0 14 0 10 0 57 0 0 0 0 0 0 8 0
## [1] 1069241 1069241 1069241 1069176 1069241 1069212 1069241 1069157 1069226
## [10] 1069222 1069231 1069241 1069215 1069210 1069210
##      comu x          a
## 1  Penonomé 1          NA
## 2  Penonomé 2  0.000000e+00
## 3  Penonomé 3 -2.688497e-10
## 4  Penonomé 4  4.644473e+00
## 5  Penonomé 5  4.644473e+00
## 6  Penonomé 6  4.121266e+00
## 7  Penonomé 7  4.108209e+00
## 8  Penonomé 8  1.536807e+00
## 9  Penonomé 9  1.510270e+00
## 10 Penonomé 10 1.479028e+00

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## 11 Penonomé 11 1.477096e+00
## 12 Penonomé 12 1.498058e+00
## 13 Penonomé 13 1.461969e+00
## 14 Penonomé 14 1.467009e+00
## 15 Penonomé 15 1.427728e+00
##      Fecha Susceptibles Infectados Recuperados
## 1 2020-06-06      12397          0          0
## 2 2020-06-07      12397          0          0
## 3 2020-06-08      12397          0          0
## 4 2020-06-09      12397          0          0
## 5 2020-06-10      12397          0          0
## 6 2020-06-11      12397          0          0
## 7 2020-06-12      12397          0          0
## 8 2020-06-13      12396          1          0
## 9 2020-06-14      12397          0          0
## 10 2020-06-15      12397          0          0
## 11 2020-06-16      12397          0          0
## 12 2020-06-17      12397          0          0
## 13 2020-06-18      12397          0          0
## 14 2020-06-19      12397          0          0
## 15 2020-06-20      12397          0          0
## [1] 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
## [1] 116844.3 116844.3 116844.3 116844.3 116844.3 116844.3 116844.3 116844.3 116843.3
## [9] 116844.3 116844.3 116844.3 116844.3 116844.3 116844.3 116844.3 116844.3
##      comu x      a
## 1 Pesé 1      NA
## 2 Pesé 2 0.000000e+00
## 3 Pesé 3 -8.401552e-12
## 4 Pesé 4 0.000000e+00
## 5 Pesé 5 0.000000e+00
## 6 Pesé 6 -1.188159e-11
## 7 Pesé 7 0.000000e+00
## 8 Pesé 8 -1.250050e-01
## 9 Pesé 9 -1.111156e-01
## 10 Pesé 10 -1.000040e-01
## 11 Pesé 11 -9.091276e-02
## 12 Pesé 12 -8.333669e-02
## 13 Pesé 13 -7.692618e-02
## 14 Pesé 14 -7.143145e-02
## 15 Pesé 15 -6.666936e-02
##      Fecha Susceptibles Infectados Recuperados
## 1 2020-06-06      21093          0          0
## 2 2020-06-07      21093          0          0
## 3 2020-06-08      21093          0          0
## 4 2020-06-09      21057         34          2
## 5 2020-06-10      21093          0          0
## 6 2020-06-11      21039         53          1
## 7 2020-06-12      21093          0          0
## 8 2020-06-13      21036         49          8
## 9 2020-06-14      21085          8          0
## 10 2020-06-15      21087          6          0
## 11 2020-06-16      21062         31          0
## 12 2020-06-17      21093          0          0
## 13 2020-06-18      21075         18          0

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## 14 2020-06-19      21089      3      1
## 15 2020-06-20      21089      4      0
## [1] 0 0 0 2 0 1 0 8 0 0 0 0 0 1 0
## [1] 210016.6 210016.6 210016.6 209980.6 210016.6 209962.5 210016.6 209959.5
## [9] 210008.6 210010.6 209985.6 210016.6 209998.6 210012.6 210012.6
##      comu x      a
## 1  Pinogana 1      NA
## 2  Pinogana 2  0.000000e+00
## 3  Pinogana 3 -3.360621e-11
## 4  Pinogana 4  1.801538e+01
## 5  Pinogana 5  1.801538e+01
## 6  Pinogana 6  2.316593e+01
## 7  Pinogana 7  2.356213e+01
## 8  Pinogana 8  7.060407e+00
## 9  Pinogana 9  7.075533e+00
## 10 Pinogana 10 7.125668e+00
## 11 Pinogana 11 6.733546e+00
## 12 Pinogana 12 6.900637e+00
## 13 Pinogana 13 6.782750e+00
## 14 Pinogana 14 6.751139e+00
## 15 Pinogana 15 6.824168e+00
##      Fecha Susceptibles Infectados Recuperados
## 1  2020-06-06      3321      0      0
## 2  2020-06-07      3321      0      0
## 3  2020-06-08      3321      0      0
## 4  2020-06-09      3321      0      0
## 5  2020-06-10      3321      0      0
## 6  2020-06-11      3321      0      0
## 7  2020-06-12      3321      0      0
## 8  2020-06-13      3318      2      1
## 9  2020-06-14      3321      0      0
## 10 2020-06-15      3321      0      0
## 11 2020-06-16      3321      0      0
## 12 2020-06-17      3321      0      0
## 13 2020-06-18      3321      0      0
## 14 2020-06-19      3321      0      0
## 15 2020-06-20      3321      0      0
## [1] 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0
## [1] 26926.74 26926.74 26926.74 26926.74 26926.74 26926.74 26926.74 26923.74
## [9] 26926.74 26926.74 26926.74 26926.74 26926.74 26926.74 26926.74
##      comu x      a
## 1  Pocrí 1      NA
## 2  Pocrí 2  0.000000e+00
## 3  Pocrí 3 -2.100388e-12
## 4  Pocrí 4 -1.818989e-12
## 5  Pocrí 5  0.000000e+00
## 6  Pocrí 6 -1.485199e-12
## 7  Pocrí 7 -2.750053e-12
## 8  Pocrí 8  3.001356e+00
## 9  Pocrí 9  3.001356e+00
## 10 Pocrí 10 3.001356e+00
## 11 Pocrí 11 3.001356e+00
## 12 Pocrí 12 3.001356e+00
## 13 Pocrí 13 3.001356e+00

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## 14 Pocrí 14 3.001356e+00
## 15 Pocrí 15 3.001356e+00
##      Fecha Susceptibles Infectados Recuperados
## 1  2020-06-06      10430          0          0
## 2  2020-06-07      10373          0          57
## 3  2020-06-08      10430          0          0
## 4  2020-06-09      10231         145          54
## 5  2020-06-10      10430          0          0
## 6  2020-06-11      10257          54         119
## 7  2020-06-12      10430          0          0
## 8  2020-06-13      10076          92         262
## 9  2020-06-14      10386          44          0
## 10 2020-06-15      10397          30          3
## 11 2020-06-16      10407          23          0
## 12 2020-06-17      10430          0          0
## 13 2020-06-18      10342          85          3
## 14 2020-06-19      10327          40          63
## 15 2020-06-20      10359          69          2
## [1] 0 57 0 54 0 119 0 262 0 3 0 0 3 63 2
## [1] 96502.97 96445.81 96502.97 96302.04 96502.97 96328.51 96502.97 96142.82
## [9] 96458.87 96469.91 96479.94 96502.97 96414.59 96399.45 96431.72
##      comu x      a
## 1  Portobelo 1      NA
## 2  Portobelo 2 1.002742
## 3  Portobelo 3 1.002742
## 4  Portobelo 4 2.251738
## 5  Portobelo 5 2.263940
## 6  Portobelo 6 1.588891
## 7  Portobelo 7 1.617662
## 8  Portobelo 8 1.370695
## 9  Portobelo 9 1.344886
## 10 Portobelo 10 1.337989
## 11 Portobelo 11 1.336455
## 12 Portobelo 12 1.349107
## 13 Portobelo 13 1.315990
## 14 Portobelo 14 1.314538
## 15 Portobelo 15 1.292867
##      Fecha Susceptibles Infectados Recuperados
## 1  2020-06-06      4214          0          0
## 2  2020-06-07      4214          0          0
## 3  2020-06-08      4214          0          0
## 4  2020-06-09      4198         11          5
## 5  2020-06-10      4214          0          0
## 6  2020-06-11      4209          2          3
## 7  2020-06-12      4214          0          0
## 8  2020-06-13      4206          4          4
## 9  2020-06-14      4211          3          0
## 10 2020-06-15      4213          1          0
## 11 2020-06-16      4209          5          0
## 12 2020-06-17      4214          0          0
## 13 2020-06-18      4212          2          0
## 14 2020-06-19      4208          5          1
## 15 2020-06-20      4213          1          0
## [1] 0 0 0 5 0 3 0 4 0 0 0 0 0 1 0

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## [1] 35170.75 35170.75 35170.75 35154.72 35170.75 35165.75 35170.75 35162.74
## [9] 35167.75 35169.75 35165.75 35170.75 35168.75 35164.75 35169.75
##      comu  x      a
## 1 Remedios 1      NA
## 2 Remedios 2 0.000000e+00
## 3 Remedios 3 -4.200776e-12
## 4 Remedios 4 3.206090e+00
## 5 Remedios 5 3.206090e+00
## 6 Remedios 6 2.876426e+00
## 7 Remedios 7 2.861269e+00
## 8 Remedios 8 2.613439e+00
## 9 Remedios 9 2.484376e+00
## 10 Remedios 10 2.459015e+00
## 11 Remedios 11 2.321589e+00
## 12 Remedios 12 2.345958e+00
## 13 Remedios 13 2.318069e+00
## 14 Remedios 14 2.323106e+00
## 15 Remedios 15 2.325985e+00
##      Fecha Susceptibles Infectados Recuperados
## 1 2020-06-06      20887          0          0
## 2 2020-06-07      20887          0          0
## 3 2020-06-08      20887          0          0
## 4 2020-06-09      20887          0          0
## 5 2020-06-10      20887          0          0
## 6 2020-06-11      20887          0          0
## 7 2020-06-12      20887          0          0
## 8 2020-06-13      20887          0          0
## 9 2020-06-14      20887          0          0
## 10 2020-06-15      20887          0          0
## 11 2020-06-16      20887          0          0
## 12 2020-06-17      20887          0          0
## 13 2020-06-18      20887          0          0
## 14 2020-06-19      20887          0          0
## 15 2020-06-20      20886          1          0
## [1] 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
## [1] 207760.5 207760.5 207760.5 207760.5 207760.5 207760.5 207760.5 207760.5
## [9] 207760.5 207760.5 207760.5 207760.5 207760.5 207760.5 207759.5
##      comu  x      a
## 1 Renacimiento 1      NA
## 2 Renacimiento 2 0.000000e+00
## 3 Renacimiento 3 -1.680310e-11
## 4 Renacimiento 4 0.000000e+00
## 5 Renacimiento 5 0.000000e+00
## 6 Renacimiento 6 -1.188159e-11
## 7 Renacimiento 7 -1.100021e-11
## 8 Renacimiento 8 -2.057952e-11
## 9 Renacimiento 9 -9.701277e-12
## 10 Renacimiento 10 -9.203439e-12
## 11 Renacimiento 11 0.000000e+00
## 12 Renacimiento 12 -8.401552e-12
## 13 Renacimiento 13 -8.071950e-12
## 14 Renacimiento 14 -1.555665e-11
## 15 Renacimiento 15 -6.666826e-02
##      Fecha Susceptibles Infectados Recuperados

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## 1 2020-06-06      5244      0      0
## 2 2020-06-07      5244      0      0
## 3 2020-06-08      5244      0      0
## 4 2020-06-09      5244      0      0
## 5 2020-06-10      5244      0      0
## 6 2020-06-11      5244      0      0
## 7 2020-06-12      5244      0      0
## 8 2020-06-13      5244      0      0
## 9 2020-06-14      5244      0      0
## 10 2020-06-15      5244      0      0
## 11 2020-06-16      5244      0      0
## 12 2020-06-17      5244      0      0
## 13 2020-06-18      5244      0      0
## 14 2020-06-19      5244      0      0
## 15 2020-06-20      5244      0      0
## [1] 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
## [1] 44914.02 44914.02 44914.02 44914.02 44914.02 44914.02 44914.02 44914.02 44914.02
## [9] 44914.02 44914.02 44914.02 44914.02 44914.02 44914.02 44914.02 44914.02
##      comu x      a
## 1 Río de Jesús 1      NA
## 2 Río de Jesús 2 0.000000e+00
## 3 Río de Jesús 3 -4.200776e-12
## 4 Río de Jesús 4 -3.637979e-12
## 5 Río de Jesús 5 0.000000e+00
## 6 Río de Jesús 6 -2.970397e-12
## 7 Río de Jesús 7 -2.750053e-12
## 8 Río de Jesús 8 -5.144879e-12
## 9 Río de Jesús 9 -2.425319e-12
## 10 Río de Jesús 10 -2.300860e-12
## 11 Río de Jesús 11 -4.387568e-12
## 12 Río de Jesús 12 0.000000e+00
## 13 Río de Jesús 13 0.000000e+00
## 14 Río de Jesús 14 -1.944581e-12
## 15 Río de Jesús 15 -5.635933e-12
##      Fecha Susceptibles Infectados Recuperados
## 1 2020-06-06      2760      0      0
## 2 2020-06-07      2760      0      0
## 3 2020-06-08      2760      0      0
## 4 2020-06-09      2760      0      0
## 5 2020-06-10      2760      0      0
## 6 2020-06-11      2760      0      0
## 7 2020-06-12      2760      0      0
## 8 2020-06-13      2760      0      0
## 9 2020-06-14      2760      0      0
## 10 2020-06-15      2760      0      0
## 11 2020-06-16      2760      0      0
## 12 2020-06-17      2760      0      0
## 13 2020-06-18      2760      0      0
## 14 2020-06-19      2760      0      0
## 15 2020-06-20      2760      0      0
## [1] 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
## [1] 21867.44 21867.44 21867.44 21867.44 21867.44 21867.44 21867.44 21867.44 21867.44
## [9] 21867.44 21867.44 21867.44 21867.44 21867.44 21867.44 21867.44 21867.44
##      comu x      a

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## 1 Sambú 1 NA
## 2 Sambú 2 0.000000e+00
## 3 Sambú 3 0.000000e+00
## 4 Sambú 4 0.000000e+00
## 5 Sambú 5 -1.626954e-12
## 6 Sambú 6 -2.970397e-12
## 7 Sambú 7 -1.375027e-12
## 8 Sambú 8 -1.286220e-12
## 9 Sambú 9 0.000000e+00
## 10 Sambú 10 -1.150430e-12
## 11 Sambú 11 -1.096892e-12
## 12 Sambú 12 -3.150582e-12
## 13 Sambú 13 -1.008994e-12
## 14 Sambú 14 0.000000e+00
## 15 Sambú 15 -9.393221e-13
##      Fecha Susceptibles Infectados Recuperados
## 1 2020-06-06      22800           0           0
## 2 2020-06-07      22800           0           0
## 3 2020-06-08      22800           0           0
## 4 2020-06-09      22768          29           3
## 5 2020-06-10      22800           0           0
## 6 2020-06-11      22772          20           8
## 7 2020-06-12      22800           0           0
## 8 2020-06-13      22765          11          24
## 9 2020-06-14      22797           3           0
## 10 2020-06-15      22789          11           0
## 11 2020-06-16      22793           7           0
## 12 2020-06-17      22800           0           0
## 13 2020-06-18      22783          17           0
## 14 2020-06-19      22764          23          13
## 15 2020-06-20      22783          17           0
## [1] 0 0 0 3 0 8 0 24 0 0 0 0 0 13 0
## [1] 228787.0 228787.0 228787.0 228754.9 228787.0 228758.9 228787.0 228751.9
## [9] 228784.0 228776.0 228780.0 228787.0 228770.0 228750.9 228770.0
##      comu x      a
## 1 San Carlos 1 NA
## 2 San Carlos 2 0.000000e+00
## 3 San Carlos 3 -1.680310e-11
## 4 San Carlos 4 1.067416e+01
## 5 San Carlos 5 1.067416e+01
## 6 San Carlos 6 3.977268e+00
## 7 San Carlos 7 4.053844e+00
## 8 San Carlos 8 1.502262e+00
## 9 San Carlos 9 1.519783e+00
## 10 San Carlos 10 1.479786e+00
## 11 San Carlos 11 1.472250e+00
## 12 San Carlos 12 1.503541e+00
## 13 San Carlos 13 1.446668e+00
## 14 San Carlos 14 1.606037e+00
## 15 San Carlos 15 1.555784e+00
##      Fecha Susceptibles Infectados Recuperados
## 1 2020-06-06      6627           0           0
## 2 2020-06-07      6627           0           0
## 3 2020-06-08      6627           0           0

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## 4 2020-06-09      6627      0      0
## 5 2020-06-10      6627      0      0
## 6 2020-06-11      6627      0      0
## 7 2020-06-12      6627      0      0
## 8 2020-06-13      6623      1      3
## 9 2020-06-14      6627      0      0
## 10 2020-06-15      6627      0      0
## 11 2020-06-16      6627      0      0
## 12 2020-06-17      6627      0      0
## 13 2020-06-18      6627      0      0
## 14 2020-06-19      6627      0      0
## 15 2020-06-20      6627      0      0
## [1] 0 0 0 0 0 0 0 3 0 0 0 0 0 0 0
## [1] 58310.36 58310.36 58310.36 58310.36 58310.36 58310.36 58310.36 58306.36
## [9] 58310.36 58310.36 58310.36 58310.36 58310.36 58310.36 58310.36
##      comu x      a
## 1 San Félix 1      NA
## 2 San Félix 2 0.000000e+00
## 3 San Félix 3 -4.200776e-12
## 4 San Félix 4 0.000000e+00
## 5 San Félix 5 -3.253907e-12
## 6 San Félix 6 -8.911192e-12
## 7 San Félix 7 -2.750053e-12
## 8 San Félix 8 1.333736e+00
## 9 San Félix 9 1.333736e+00
## 10 San Félix 10 1.333736e+00
## 11 San Félix 11 1.333736e+00
## 12 San Félix 12 1.333736e+00
## 13 San Félix 13 1.333736e+00
## 14 San Félix 14 1.333736e+00
## 15 San Félix 15 1.333736e+00
##      Fecha Susceptibles Infectados Recuperados
## 1 2020-06-06      10027      0      0
## 2 2020-06-07      10027      0      0
## 3 2020-06-08      10027      0      0
## 4 2020-06-09      10026      1      0
## 5 2020-06-10      10027      0      0
## 6 2020-06-11      10027      0      0
## 7 2020-06-12      10027      0      0
## 8 2020-06-13      10026      1      0
## 9 2020-06-14      10026      0      1
## 10 2020-06-15      10027      0      0
## 11 2020-06-16      10026      1      0
## 12 2020-06-17      10027      0      0
## 13 2020-06-18      10026      1      0
## 14 2020-06-19      10025      1      1
## 15 2020-06-20      10027      0      0
## [1] 0 0 0 0 0 0 0 1 0 0 0 0 1 0
## [1] 92379.12 92379.12 92379.12 92378.12 92379.12 92379.12 92379.12 92378.12
## [9] 92378.12 92379.12 92378.12 92379.12 92378.12 92377.12 92379.12
##      comu x      a
## 1 San Francisco 1      NA
## 2 San Francisco 2 -1.028976e-11
## 3 San Francisco 3 -1.680310e-11

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## 4 San Francisco 4 -2.500125e-01
## 5 San Francisco 5 -2.000100e-01
## 6 San Francisco 6 -1.666750e-01
## 7 San Francisco 7 -1.428643e-01
## 8 San Francisco 8 -1.636716e-01
## 9 San Francisco 9 7.500374e-01
## 10 San Francisco 10 7.778166e-01
## 11 San Francisco 11 7.000349e-01
## 12 San Francisco 12 7.273090e-01
## 13 San Francisco 13 6.666999e-01
## 14 San Francisco 14 1.166775e+00
## 15 San Francisco 15 1.192417e+00
##      Fecha Susceptibles Infectados Recuperados
## 1 2020-06-06      7815          0          0
## 2 2020-06-07      7814          1          0
## 3 2020-06-08      7815          0          0
## 4 2020-06-09      7770         40          5
## 5 2020-06-10      7815          0          0
## 6 2020-06-11      7762         48          5
## 7 2020-06-12      7815          0          0
## 8 2020-06-13      7732         46         37
## 9 2020-06-14      7798         17          0
## 10 2020-06-15      7790         23          2
## 11 2020-06-16      7797         16          2
## 12 2020-06-17      7815          0          0
## 13 2020-06-18      7786         28          1
## 14 2020-06-19      7777         30          8
## 15 2020-06-20      7791         24          0
## [1] 0 0 0 5 0 5 0 37 0 2 2 0 1 8 0
## [1] 70052.10 70051.10 70052.10 70006.97 70052.10 69998.92 70052.10 69968.65
## [9] 70035.08 70027.06 70034.08 70052.10 70023.04 70014.01 70028.06
##      comu x      a
## 1 San Lorenzo 1      NA
## 2 San Lorenzo 2 -0.5000320
## 3 San Lorenzo 3 -0.3333547
## 4 San Lorenzo 4 8.9593407
## 5 San Lorenzo 5 8.9760084
## 6 San Lorenzo 6 9.7810561
## 7 San Lorenzo 7 9.7910568
## 8 San Lorenzo 8 2.1920982
## 9 San Lorenzo 9 2.1607140
## 10 San Lorenzo 10 2.1366751
## 11 San Lorenzo 11 2.1328313
## 12 San Lorenzo 12 2.1756289
## 13 San Lorenzo 13 2.1365586
## 14 San Lorenzo 14 2.1625225
## 15 San Lorenzo 15 2.1268567
##      Fecha Susceptibles Infectados Recuperados
## 1 2020-06-06      357034          0          0
## 2 2020-06-07      357034          0          0
## 3 2020-06-08      357034          0          0
## 4 2020-06-09      356979         41         14
## 5 2020-06-10      357034          0          0
## 6 2020-06-11      356986         41          7

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## 7 2020-06-12      357034      0      0
## 8 2020-06-13      356932     33     69
## 9 2020-06-14      357002     26      6
## 10 2020-06-15     357008     24      2
## 11 2020-06-16     357024      9      1
## 12 2020-06-17     357034      0      0
## 13 2020-06-18     357009     25      0
## 14 2020-06-19     356991     31     12
## 15 2020-06-20     357005     28      1
## [1] 0 0 0 14 0 7 0 69 6 2 1 0 0 12 1
## [1] 4564889 4564889 4564889 4564834 4564889 4564841 4564889 4564787 4564857
## [10] 4564863 4564879 4564889 4564864 4564846 4564860
##      comu x      a
## 1 San Miguelito 1      NA
## 2 San Miguelito 2 0.000000e+00
## 3 San Miguelito 3 -5.376993e-10
## 4 San Miguelito 4 3.928874e+00
## 5 San Miguelito 5 3.928874e+00
## 6 San Miguelito 6 4.347264e+00
## 7 San Miguelito 7 4.379448e+00
## 8 San Miguelito 8 1.462023e+00
## 9 San Miguelito 9 1.445706e+00
## 10 San Miguelito 10 1.422425e+00
## 11 San Miguelito 11 1.429711e+00
## 12 San Miguelito 12 1.453022e+00
## 13 San Miguelito 13 1.427768e+00
## 14 San Miguelito 14 1.440818e+00
## 15 San Miguelito 15 1.419106e+00
##      Fecha Susceptibles Infectados Recuperados
## 1 2020-06-06      7241      0      0
## 2 2020-06-07      7241      0      0
## 3 2020-06-08      7241      0      0
## 4 2020-06-09      7241      0      0
## 5 2020-06-10      7241      0      0
## 6 2020-06-11      7239      2      0
## 7 2020-06-12      7241      0      0
## 8 2020-06-13      7231     10      0
## 9 2020-06-14      7241      0      0
## 10 2020-06-15      7241      0      0
## 11 2020-06-16      7241      0      0
## 12 2020-06-17      7241      0      0
## 13 2020-06-18      7240      1      0
## 14 2020-06-19      7240      1      0
## 15 2020-06-20      7241      0      0
## [1] 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
## [1] 64354.49 64354.49 64354.49 64354.49 64354.49 64352.49 64354.49 64344.49
## [9] 64354.49 64354.49 64354.49 64354.49 64353.49 64353.49 64354.49
##      comu x      a
## 1 Santa Catalina o Calovébora 1      NA
## 2 Santa Catalina o Calovébora 2 0.000000e+00
## 3 Santa Catalina o Calovébora 3 -8.401552e-12
## 4 Santa Catalina o Calovébora 4 0.000000e+00
## 5 Santa Catalina o Calovébora 5 -3.253907e-12
## 6 Santa Catalina o Calovébora 6 -3.333794e-01

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## 7 Santa Catalina o Calovébora 7 -2.857538e-01
## 8 Santa Catalina o Calovébora 8 -1.240088e+00
## 9 Santa Catalina o Calovébora 9 -1.106296e+00
## 10 Santa Catalina o Calovébora 10 -9.984551e-01
## 11 Santa Catalina o Calovébora 11 -9.097092e-01
## 12 Santa Catalina o Calovébora 12 -8.354141e-01
## 13 Santa Catalina o Calovébora 13 -7.684692e-01
## 14 Santa Catalina o Calovébora 14 -7.114642e-01
## 15 Santa Catalina o Calovébora 15 -6.656873e-01
##      Fecha Susceptibles Infectados Recuperados
## 1 2020-06-06      34434          0          0
## 2 2020-06-07      34434          0          0
## 3 2020-06-08      34434          0          0
## 4 2020-06-09      34411         17          6
## 5 2020-06-10      34434          0          0
## 6 2020-06-11      34419         13          2
## 7 2020-06-12      34434          0          0
## 8 2020-06-13      34388         16         30
## 9 2020-06-14      34426          8          0
## 10 2020-06-15      34429          5          0
## 11 2020-06-16      34430          4          0
## 12 2020-06-17      34434          0          0
## 13 2020-06-18      34416         18          0
## 14 2020-06-19      34416          6         12
## 15 2020-06-20      34425          9          0
## [1] 0 0 0 6 0 2 0 30 0 0 0 0 0 12 0
## [1] 359725.1 359725.1 359725.1 359702.1 359725.1 359710.1 359725.1 359679.1
## [9] 359717.1 359720.1 359721.1 359725.1 359707.1 359707.1 359716.1
##      comu x      a
## 1 Santa Fe 1      NA
## 2 Santa Fe 2 0.000000e+00
## 3 Santa Fe 3 -3.360621e-11
## 4 Santa Fe 4 3.834614e+00
## 5 Santa Fe 5 3.834614e+00
## 6 Santa Fe 6 4.001297e+00
## 7 Santa Fe 7 4.038337e+00
## 8 Santa Fe 8 1.513861e+00
## 9 Santa Fe 9 1.488477e+00
## 10 Santa Fe 10 1.483424e+00
## 11 Santa Fe 11 1.483710e+00
## 12 Santa Fe 12 1.499396e+00
## 13 Santa Fe 13 1.448855e+00
## 14 Santa Fe 14 1.408789e+00
## 15 Santa Fe 15 1.393371e+00
##      Fecha Susceptibles Infectados Recuperados
## 1 2020-06-06      3921          0          0
## 2 2020-06-07      3921          0          0
## 3 2020-06-08      3921          0          0
## 4 2020-06-09      3917          4          0
## 5 2020-06-10      3921          0          0
## 6 2020-06-11      3918          2          1
## 7 2020-06-12      3921          0          0
## 8 2020-06-13      3919          2          0
## 9 2020-06-14      3906         11          4

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## 10 2020-06-15      3920      1      0
## 11 2020-06-16      3915      6      0
## 12 2020-06-17      3921      0      0
## 13 2020-06-18      3916      5      0
## 14 2020-06-19      3921      0      0
## 15 2020-06-20      3921      0      0
## [1] 0 0 0 0 0 1 0 0 4 0 0 0 0 0 0
## [1] 32442.75 32442.75 32442.75 32438.75 32442.75 32439.75 32442.75 32440.75
## [9] 32427.73 32441.75 32436.75 32442.75 32437.75 32442.75 32442.75
##      comu x      a
## 1 Santa Isabel 1      NA
## 2 Santa Isabel 2 -5.144879e-12
## 3 Santa Isabel 3 -2.100388e-12
## 4 Santa Isabel 4 -1.000510e+00
## 5 Santa Isabel 5 -8.004083e-01
## 6 Santa Isabel 6 2.200740e+00
## 7 Santa Isabel 7 2.334141e+00
## 8 Santa Isabel 8 2.143641e+00
## 9 Santa Isabel 9 3.499090e+00
## 10 Santa Isabel 10 3.489649e+00
## 11 Santa Isabel 11 3.327731e+00
## 12 Santa Isabel 12 3.364294e+00
## 13 Santa Isabel 13 3.266882e+00
## 14 Santa Isabel 14 3.302465e+00
## 15 Santa Isabel 15 3.332788e+00
##      Fecha Susceptibles Infectados Recuperados
## 1 2020-06-06      7519      0      0
## 2 2020-06-07      7519      0      0
## 3 2020-06-08      7519      0      0
## 4 2020-06-09      7512      6      1
## 5 2020-06-10      7519      0      0
## 6 2020-06-11      7515      3      1
## 7 2020-06-12      7519      0      0
## 8 2020-06-13      7491      9      19
## 9 2020-06-14      7517      2      0
## 10 2020-06-15      7515      4      0
## 11 2020-06-16      7519      0      0
## 12 2020-06-17      7519      0      0
## 13 2020-06-18      7506     13      0
## 14 2020-06-19      7519      0      0
## 15 2020-06-20      7507      7      5
## [1] 0 0 0 1 0 1 0 19 0 0 0 0 0 0 5
## [1] 67108.49 67108.49 67108.49 67101.49 67108.49 67104.49 67108.49 67080.44
## [9] 67106.49 67104.49 67108.49 67108.49 67095.48 67108.49 67096.48
##      comu x      a
## 1 Santa María 1      NA
## 2 Santa María 2 -1.028976e-11
## 3 Santa María 3 -8.401552e-12
## 4 Santa María 4 7.003260e+00
## 5 Santa María 5 7.003260e+00
## 6 Santa María 6 5.502162e+00
## 7 Santa María 7 5.502162e+00
## 8 Santa María 8 1.433938e+00
## 9 Santa María 9 1.427382e+00

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## 10 Santa María 10 1.409143e+00
## 11 Santa María 11 1.418287e+00
## 12 Santa María 12 1.425735e+00
## 13 Santa María 13 1.368049e+00
## 14 Santa María 14 1.378261e+00
## 15 Santa María 15 1.407199e+00
##      Fecha Susceptibles Infectados Recuperados
## 1  2020-06-06      94960           0           0
## 2  2020-06-07      94757           2          201
## 3  2020-06-08      94960           0           0
## 4  2020-06-09      94832          89          39
## 5  2020-06-10      94960           0           0
## 6  2020-06-11      94870          73          17
## 7  2020-06-12      94960           0           0
## 8  2020-06-13      94788          38         134
## 9  2020-06-14      94935          25           0
## 10 2020-06-15      94940          17           3
## 11 2020-06-16      94943          16           1
## 12 2020-06-17      94960           0           0
## 13 2020-06-18      94904          56           0
## 14 2020-06-19      94891          46          23
## 15 2020-06-20      94929          31           0
## [1] 0 201 0 39 0 17 0 134 0 3 1 0 0 23 0
## [1] 1088357 1088153 1088357 1088229 1088357 1088267 1088357 1088184 1088332
## [10] 1088337 1088340 1088357 1088301 1088288 1088326
##      comu x      a
## 1  Santiago 1      NA
## 2  Santiago 2 1.0110313
## 3  Santiago 3 1.0110313
## 4  Santiago 4 0.9433844
## 5  Santiago 5 0.9847861
## 6  Santiago 6 0.9398217
## 7  Santiago 7 0.9733920
## 8  Santiago 8 1.0091914
## 9  Santiago 9 1.0090508
## 10 Santiago 10 1.0154991
## 11 Santiago 11 1.0214604
## 12 Santiago 12 1.0374475
## 13 Santiago 13 1.0150319
## 14 Santiago 14 1.0119339
## 15 Santiago 15 1.0088296
##      Fecha Susceptibles Infectados Recuperados
## 1  2020-06-06      28317           0           0
## 2  2020-06-07      28317           0           0
## 3  2020-06-08      28317           0           0
## 4  2020-06-09      28202          66          49
## 5  2020-06-10      28317           0           0
## 6  2020-06-11      28261          47           9
## 7  2020-06-12      28317           0           0
## 8  2020-06-13      28180          58          79
## 9  2020-06-14      28294          23           0
## 10 2020-06-15      28287          27           3
## 11 2020-06-16      28304          13           0
## 12 2020-06-17      28317           0           0

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## 13 2020-06-18      28268      49      0
## 14 2020-06-19      28261      26     30
## 15 2020-06-20      28277      40      0
## [1] 0 0 0 49 0 9 0 79 0 3 0 0 0 30 0
## [1] 290283.7 290283.7 290283.7 290168.5 290283.7 290227.7 290283.7 290146.4
## [9] 290260.7 290253.7 290270.7 290283.7 290234.7 290227.7 290243.7
##      comu x      a
## 1  Soná  1      NA
## 2  Soná  2 -4.115903e-11
## 3  Soná  3 -3.360621e-11
## 4  Soná  4  2.351717e+00
## 5  Soná  5  2.351717e+00
## 6  Soná  6  2.339611e+00
## 7  Soná  7  2.364169e+00
## 8  Soná  8  1.837120e+00
## 9  Soná  9  1.800674e+00
## 10 Soná 10  1.776022e+00
## 11 Soná 11  1.772905e+00
## 12 Soná 12  1.791796e+00
## 13 Soná 13  1.734068e+00
## 14 Soná 14  1.710746e+00
## 15 Soná 15  1.671719e+00
##      Fecha Susceptibles Infectados Recuperados
## 1  2020-06-06      1324          0          0
## 2  2020-06-07      1324          0          0
## 3  2020-06-08      1324          0          0
## 4  2020-06-09      1324          0          0
## 5  2020-06-10      1324          0          0
## 6  2020-06-11      1324          0          0
## 7  2020-06-12      1324          0          0
## 8  2020-06-13      1324          0          0
## 9  2020-06-14      1324          0          0
## 10 2020-06-15      1324          0          0
## 11 2020-06-16      1324          0          0
## 12 2020-06-17      1324          0          0
## 13 2020-06-18      1324          0          0
## 14 2020-06-19      1324          0          0
## 15 2020-06-20      1323          1          0
## [1] 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
## [1] 9517.458 9517.458 9517.458 9517.458 9517.458 9517.458 9517.458 9517.458
## [9] 9517.458 9517.458 9517.458 9517.458 9517.458 9517.458 9516.458
##      comu x      a
## 1  Taboga  1      NA
## 2  Taboga  2 -1.286220e-12
## 3  Taboga  3 -1.050194e-12
## 4  Taboga  4 -9.094947e-13
## 5  Taboga  5 -8.134768e-13
## 6  Taboga  6  0.000000e+00
## 7  Taboga  7 -6.875134e-13
## 8  Taboga  8 -6.431099e-13
## 9  Taboga  9 -6.063298e-13
## 10 Taboga 10 -5.752150e-13
## 11 Taboga 11 -5.484459e-13
## 12 Taboga 12  0.000000e+00

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## 13 Taboga 13 -1.008994e-12
## 14 Taboga 14 -9.722907e-13
## 15 Taboga 15 -6.669186e-02
##      Fecha Susceptibles Infectados Recuperados
## 1  2020-06-06      21343          0          0
## 2  2020-06-07      21343          0          0
## 3  2020-06-08      21343          0          0
## 4  2020-06-09      21343          0          0
## 5  2020-06-10      21343          0          0
## 6  2020-06-11      21343          0          0
## 7  2020-06-12      21343          0          0
## 8  2020-06-13      21343          0          0
## 9  2020-06-14      21343          0          0
## 10 2020-06-15      21343          0          0
## 11 2020-06-16      21342          1          0
## 12 2020-06-17      21343          0          0
## 13 2020-06-18      21343          0          0
## 14 2020-06-19      21343          0          0
## 15 2020-06-20      21343          0          0
## [1] 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
## [1] 212757.2 212757.2 212757.2 212757.2 212757.2 212757.2 212757.2 212757.2 212757.2
## [9] 212757.2 212757.2 212756.2 212757.2 212757.2 212757.2 212757.2 212757.2
##      comu x      a
## 1  Tierras Altas 1      NA
## 2  Tierras Altas 2 -2.057952e-11
## 3  Tierras Altas 3 -1.680310e-11
## 4  Tierras Altas 4  0.000000e+00
## 5  Tierras Altas 5 -1.301563e-11
## 6  Tierras Altas 6  0.000000e+00
## 7  Tierras Altas 7 -2.200043e-11
## 8  Tierras Altas 8 -1.028976e-11
## 9  Tierras Altas 9 -1.940255e-11
## 10 Tierras Altas 10 -9.203439e-12
## 11 Tierras Altas 11 -9.091122e-02
## 12 Tierras Altas 12 -8.333529e-02
## 13 Tierras Altas 13 -7.692488e-02
## 14 Tierras Altas 14 -7.143024e-02
## 15 Tierras Altas 15 -6.666823e-02
##      Fecha Susceptibles Infectados Recuperados
## 1  2020-06-06      12344          0          0
## 2  2020-06-07      12344          0          0
## 3  2020-06-08      12344          0          0
## 4  2020-06-09      12339          2          3
## 5  2020-06-10      12344          0          0
## 6  2020-06-11      12338          5          1
## 7  2020-06-12      12344          0          0
## 8  2020-06-13      12344          0          0
## 9  2020-06-14      12336          2          6
## 10 2020-06-15      12344          0          0
## 11 2020-06-16      12342          2          0
## 12 2020-06-17      12344          0          0
## 13 2020-06-18      12338          6          0
## 14 2020-06-19      12343          1          0
## 15 2020-06-20      12340          4          0

```

```

## [1] 0 0 0 3 0 1 0 0 6 0 0 0 0 0 0
## [1] 116291.9 116291.9 116291.9 116286.9 116291.9 116285.9 116291.9 116291.9
## [9] 116283.9 116291.9 116289.9 116291.9 116285.9 116290.9 116287.9
##      comu  x          a
## 1  Tolé  1          NA
## 2  Tolé  2  0.000000e+00
## 3  Tolé  3 -8.401552e-12
## 4  Tolé  4  1.667004e+00
## 5  Tolé  5  1.667004e+00
## 6  Tolé  6  1.864025e+00
## 7  Tolé  7  1.907807e+00
## 8  Tolé  8  1.937908e+00
## 9  Tolé  9  1.373025e+00
## 10 Tolé 10  1.389305e+00
## 11 Tolé 11  1.352631e+00
## 12 Tolé 12  1.367674e+00
## 13 Tolé 13  1.259426e+00
## 14 Tolé 14  1.261422e+00
## 15 Tolé 15  1.212249e+00
##      Fecha Susceptibles Infectados Recuperados
## 1  2020-06-06          9631           0           0
## 2  2020-06-07          9631           0           0
## 3  2020-06-08          9631           0           0
## 4  2020-06-09          9625           5           1
## 5  2020-06-10          9631           0           0
## 6  2020-06-11          9631           0           0
## 7  2020-06-12          9631           0           0
## 8  2020-06-13          9629           2           0
## 9  2020-06-14          9629           2           0
## 10 2020-06-15          9629           2           0
## 11 2020-06-16          9629           2           0
## 12 2020-06-17          9631           0           0
## 13 2020-06-18          9627           4           0
## 14 2020-06-19          9629           2           0
## 15 2020-06-20          9631           0           0
## [1] 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0
## [1] 88342.68 88342.68 88342.68 88336.68 88342.68 88342.68 88342.68 88340.68
## [9] 88340.68 88340.68 88340.68 88342.68 88338.68 88340.68 88342.68
##      comu  x          a
## 1  Tonosí 1          NA
## 2  Tonosí 2 -1.028976e-11
## 3  Tonosí 3 -8.401552e-12
## 4  Tonosí 4  6.001870e+00
## 5  Tonosí 5  6.001870e+00
## 6  Tonosí 6  6.001870e+00
## 7  Tonosí 7  6.001870e+00
## 8  Tonosí 8  5.716126e+00
## 9  Tonosí 9  5.501818e+00
## 10 Tonosí 10 5.335134e+00
## 11 Tonosí 11 5.201787e+00
## 12 Tonosí 12 5.274521e+00
## 13 Tonosí 13 5.001731e+00
## 14 Tonosí 14 4.924803e+00
## 15 Tonosí 15 5.001736e+00

```