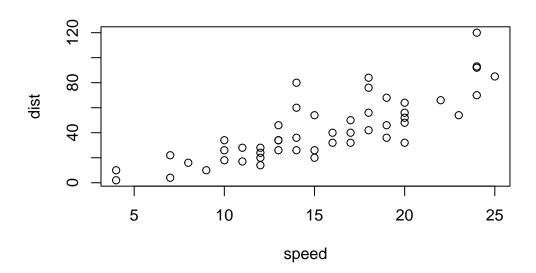
Class 5: Data Viz with ggplot

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Plotting in R

R has lots of ways to make plots and figures. This includes so-called **base** graphics and packages like **ggplot2**

plot(cars)



This is a base R plot of the in-built cars dataset that has only two columns:

head(cars)

```
speed dist
       4
            2
1
2
       4
           10
3
      7
            4
4
      7
           22
5
      8
           16
       9
           10
```

Q. How would we plot this weee dataset with **ggplot2**?

All ggplot figures have at least 3 layers:

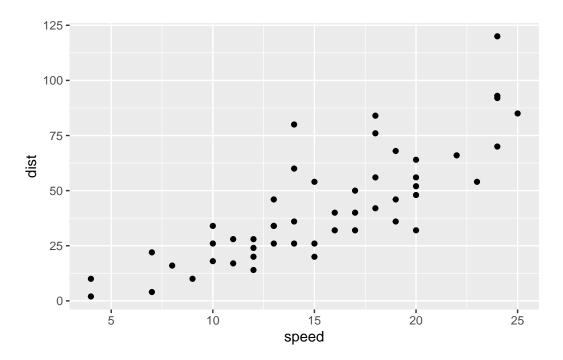
- data
- **aes**thetics (how the data map to the plot) **-geams** (how we draw the plot, lines, points, etc.)

Before I use any new package I need to download and instill it with the install.packages() command.

I never use install.packages() within my quarto document otherwise I will install the package over and over again - which is silly!

Once a package is installed I can load it up with the library() function.

```
#install.packages("ggplot2")
library(ggplot2)
ggplot(cars) +
  aes(x=speed, y=dist) +
  geom_point()
```



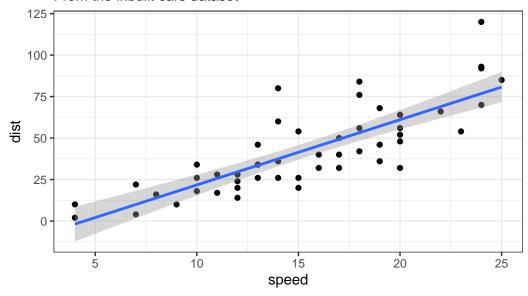
Key-point: For simple plots (like the one above) ggplot is more verbose (we need to do more typing) but as plots get more complicated ggplot starts to be more clear and simple than base R plot()

p

[`]geom_smooth()` using formula = 'y ~ x'

Stopping distance of old cars

From the inbuilt cars dataset



Hands on Worksheet Questions

- Q1. For which phases is data visualization important in our scientific workflows?

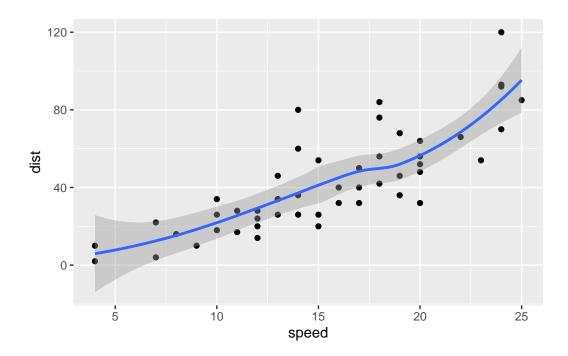
 All of the above
- Q2. True or False? The ggplot2 package comes already installed with R? False
 - Q3. Which plot types are typically NOT used to compare distributions of numeric variables?

Network graphs

- Q4. Which statement about data visualization with ggplot2 is incorrect? ggplot is the only way to create plots in R
- Q5. Which geometric layer should be used to create scatter plots in ggplot2? geom_point()
 - Q6. In your own RStudio can you add a trend line layer to help show the relationship between the plot variables with the geom_smooth() function?

```
ggplot(cars) +
  aes(x=speed, y=dist) +
  geom_point() +
  geom_smooth()
```

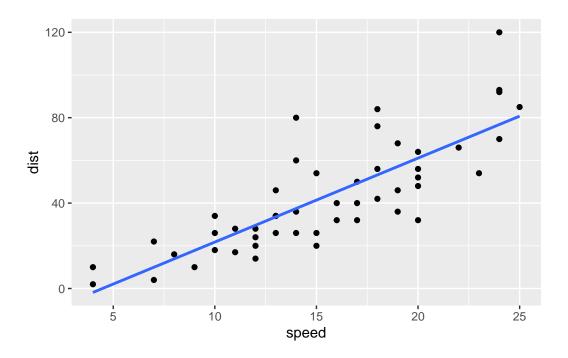
 $\ensuremath{\text{`geom_smooth()`}}\ using method = 'loess' and formula = 'y ~ x'$



Q7. Argue with geom_smooth() to add a straight line from a linear model without the shaded standard error region?

```
ggplot(cars) +
  aes(x=speed, y=dist) +
  geom_point() +
  geom_smooth(method="lm", se=FALSE)
```

[`]geom_smooth()` using formula = 'y ~ x'

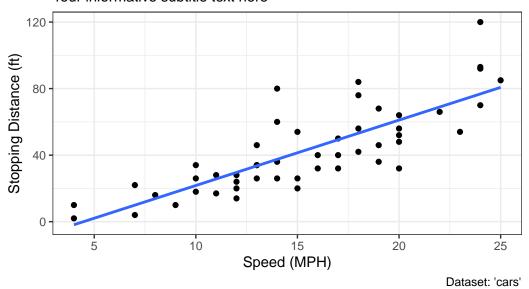


Q8. Can you finish this plot by adding various label annotations with the labs() function and changing the plot look to a more conservative "black & white" theme by adding the theme_bw() function:

[`]geom_smooth()` using formula = 'y ~ x'

Speed and Stopping Distances of Cars

Your informative subtitle text here



url <- "https://bioboot.github.io/bimm143_S20/class-material/up_down_expression.txt"
genes <- read.delim(url)
head(genes)</pre>

```
Gene Condition1 Condition2 State
1 A4GNT -3.6808610 -3.4401355 unchanging
2 AAAS 4.5479580 4.3864126 unchanging
3 AASDH 3.7190695 3.4787276 unchanging
4 AATF 5.0784720 5.0151916 unchanging
5 AATK 0.4711421 0.5598642 unchanging
6 AB015752.4 -3.6808610 -3.5921390 unchanging
```

Q9. Use the nrow() function to find out how many genes are in this dataset. What is your answer?

nrow(genes)

[1] 5196

Q10. Use the colnames() function and the ncol() function on the genes data frame to find out what the column names are (we will need these later) and how many columns there are. How many columns did you find?

```
colnames(genes)
```

[1] "Gene" "Condition1" "Condition2" "State"

```
ncol(genes)
```

[1] 4

Q11. Use the table() function on the State column of this data.frame to find out how many 'up' regulated genes there are. What is your answer?

```
table(genes$State)
```

```
down unchanging up
72 4997 127
```

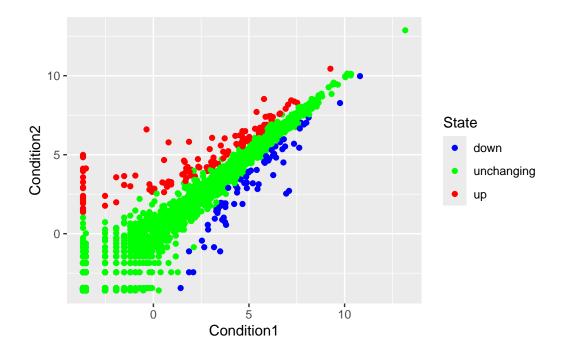
Q12. Using your values above and 2 significant figures. What fraction of total genes is up-regulated in this dataset?

```
round( table(genes$State)/nrow(genes) * 100, 2 )
```

```
down unchanging up
1.39 96.17 2.44
```

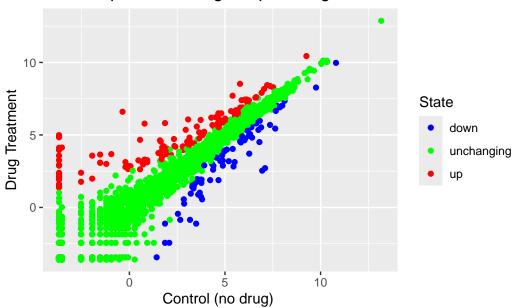
Q13. Complete the code below to produce the following plot

```
p <- ggplot(genes) +
    aes(x=Condition1, y=Condition2, col=State) +
    geom_point()
p + scale_colour_manual( values=c("blue", "green", "red") )</pre>
```



Q14. Nice, now add some plot annotations to the p object with the labs() function so your plot looks like the following:

Gene Expresion Changes Upon Drug Treatment



```
# File location online
url <- "https://raw.githubusercontent.com/jennybc/gapminder/master/inst/extdata/gapminder.ts
gapminder <- read.delim(url)</pre>
```

```
# install.packages("dplyr") ## un-comment to install if needed
library(dplyr)
```

```
Attaching package: 'dplyr'
```

The following objects are masked from 'package:stats':

filter, lag

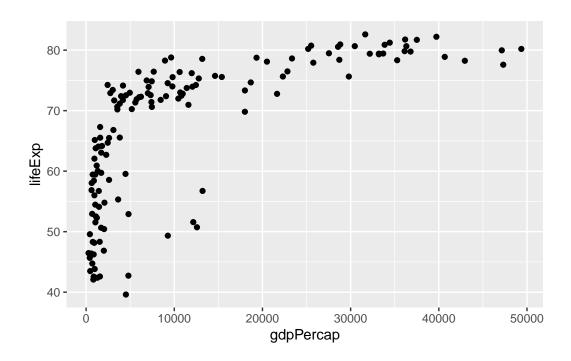
The following objects are masked from 'package:base':

intersect, setdiff, setequal, union

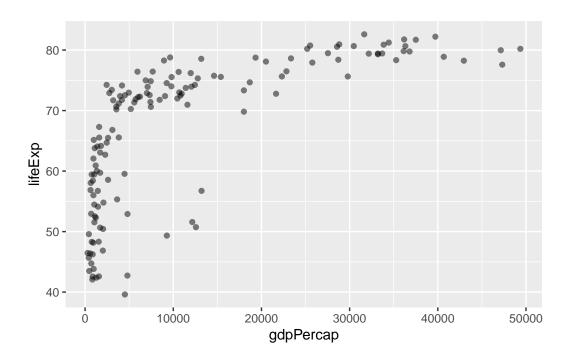
```
gapminder_2007 <- gapminder %>% filter(year==2007)
```

Q15. Complete the code below to produce a first basic scater plot of this gapmin-der_2007 dataset:

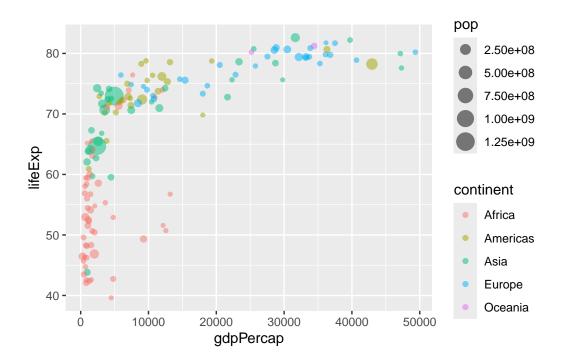
```
ggplot(gapminder_2007) +
  aes(x=gdpPercap, y=lifeExp) +
  geom_point()
```



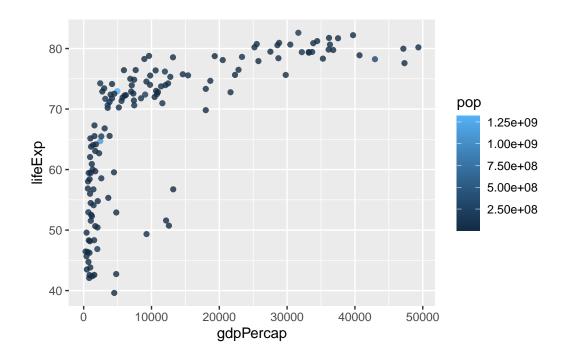
```
ggplot(gapminder_2007) +
aes(x=gdpPercap, y=lifeExp) +
geom_point(alpha=0.5)
```



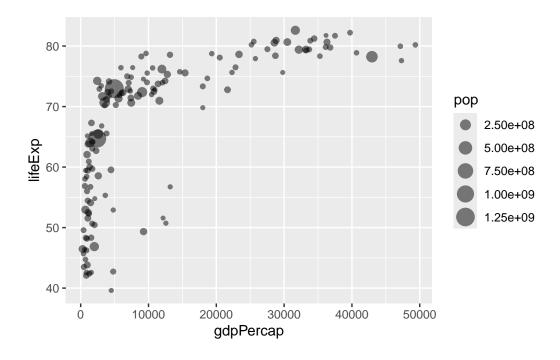
```
ggplot(gapminder_2007) +
  aes(x=gdpPercap, y=lifeExp, color=continent, size=pop) +
  geom_point(alpha=0.5)
```

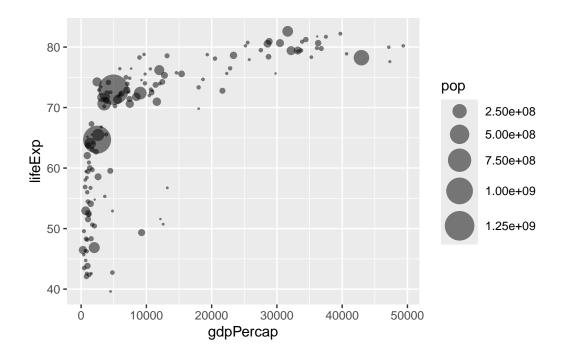


```
ggplot(gapminder_2007) +
aes(x = gdpPercap, y = lifeExp, color = pop) +
geom_point(alpha=0.8)
```

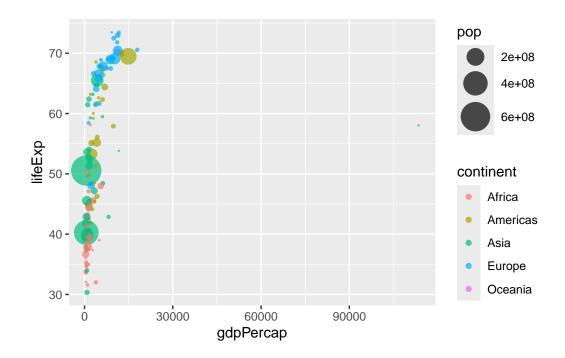


```
ggplot(gapminder_2007) +
aes(x = gdpPercap, y = lifeExp, size = pop) +
geom_point(alpha=0.5)
```





Q16. Can you adapt the code you have learned thus far to reproduce our gapminder scatter plot for the year 1957? What do you notice about this plot is it easy to compare with the one for 2007?



Q17. Do the same steps above but include 1957 and 2007 in your input dataset for ggplot(). You should now include the layer facet_wrap(\sim year) to produce the following plot:

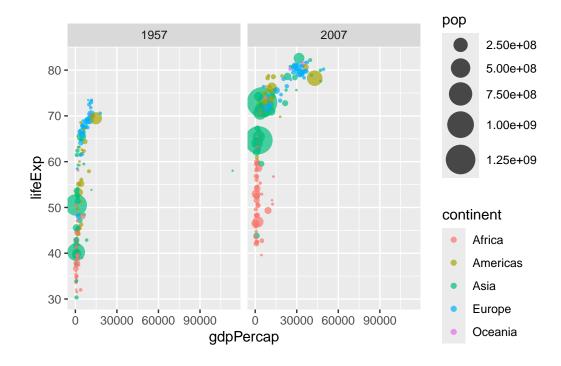


table (gapminder\$year)

length (unique(gapminder\$year))

[1] 12

library(dplyr)

Q. Extract data for the US in 1992

```
filter(gapminder, country== "United States",
     year==1992)
```

country continent year lifeExp pop gdpPercap
1 United States Americas 1992 76.09 256894189 32003.93

What was the population of Ireland in the last year we have data for?

```
country continent year lifeExp pop gdpPercap
1 Ireland Europe 2007 78.885 4109086 40676
```

- Q. What countries in data set had population smaller than Ireland in 2007
- First limit/subset the dataset to the year 2007

```
gap07 <- filter(gapminder, year==2007)</pre>
```

• Then find the pop value for Ireland

```
ire_pop <- filter(gap07, country=="Ireland")["pop"] ire_pop
```

• Then extract all rows with pop less than Ireland's

```
filter(gapminder, pop < 4109086)</pre>
```

| | country | ${\tt continent}$ | year | lifeExp | pop | ${\tt gdpPercap}$ |
|----|---------|-------------------|------|---------|---------|-------------------|
| 1 | Albania | Europe | 1952 | 55.230 | 1282697 | 1601.0561 |
| 2 | Albania | Europe | 1957 | 59.280 | 1476505 | 1942.2842 |
| 3 | Albania | Europe | 1962 | 64.820 | 1728137 | 2312.8890 |
| 4 | Albania | Europe | 1967 | 66.220 | 1984060 | 2760.1969 |
| 5 | Albania | Europe | 1972 | 67.690 | 2263554 | 3313.4222 |
| 6 | Albania | Europe | 1977 | 68.930 | 2509048 | 3533.0039 |
| 7 | Albania | Europe | 1982 | 70.420 | 2780097 | 3630.8807 |
| 8 | Albania | Europe | 1987 | 72.000 | 3075321 | 3738.9327 |
| 9 | Albania | Europe | 1992 | 71.581 | 3326498 | 2497.4379 |
| 10 | Albania | Europe | 1997 | 72.950 | 3428038 | 3193.0546 |
| 11 | Albania | Europe | 2002 | 75.651 | 3508512 | 4604.2117 |
| 12 | Albania | Europe | 2007 | 76.423 | 3600523 | 5937.0295 |
| 13 | Bahrain | Asia | 1952 | 50.939 | 120447 | 9867.0848 |
| 14 | Bahrain | Asia | 1957 | 53.832 | 138655 | 11635.7995 |
| 15 | Bahrain | Asia | 1962 | 56.923 | 171863 | 12753.2751 |
| 16 | Bahrain | Asia | 1967 | 59.923 | 202182 | 14804.6727 |
| 17 | Bahrain | Asia | 1972 | 63.300 | 230800 | 18268.6584 |
| 18 | Bahrain | Asia | 1977 | 65.593 | 297410 | 19340.1020 |
| 19 | Bahrain | Asia | 1982 | 69.052 | 377967 | 19211.1473 |

```
20
                      Bahrain
                                    Asia 1987
                                               70.750
                                                        454612
                                                                 18524.0241
21
                      Bahrain
                                    Asia 1992
                                               72.601
                                                        529491
                                                                 19035.5792
                      Bahrain
22
                                    Asia 1997
                                               73.925
                                                        598561
                                                                 20292.0168
23
                      Bahrain
                                               74.795
                                    Asia 2002
                                                        656397
                                                                 23403.5593
24
                      Bahrain
                                    Asia 2007
                                               75.635
                                                        708573
                                                                 29796.0483
25
                        Benin
                                  Africa 1952
                                               38.223 1738315
                                                                  1062.7522
26
                        Benin
                                  Africa 1957
                                                40.358 1925173
                                                                   959.6011
27
                        Benin
                                  Africa 1962
                                               42.618 2151895
                                                                   949.4991
28
                        Benin
                                  Africa 1967
                                               44.885 2427334
                                                                  1035.8314
29
                        Benin
                                  Africa 1972
                                               47.014 2761407
                                                                  1085.7969
30
                        Benin
                                  Africa 1977
                                               49.190 3168267
                                                                  1029.1613
31
                        Benin
                                  Africa 1982
                                               50.904 3641603
                                                                  1277.8976
32
                                                                  2677.3263
                      Bolivia
                               Americas 1952
                                               40.414 2883315
33
                      Bolivia
                                Americas 1957
                                               41.890 3211738
                                                                  2127.6863
34
                      Bolivia
                                Americas 1962
                                               43.428 3593918
                                                                  2180.9725
35
                      Bolivia
                               Americas 1967
                                               45.032 4040665
                                                                  2586.8861
36
      Bosnia and Herzegovina
                                  Europe 1952
                                               53.820 2791000
                                                                   973.5332
37
      Bosnia and Herzegovina
                                  Europe 1957
                                               58.450 3076000
                                                                  1353.9892
      Bosnia and Herzegovina
                                  Europe 1962
                                               61.930 3349000
38
                                                                  1709.6837
39
      Bosnia and Herzegovina
                                  Europe 1967
                                               64.790 3585000
                                                                  2172.3524
40
      Bosnia and Herzegovina
                                  Europe 1972
                                               67.450 3819000
                                                                  2860.1698
41
      Bosnia and Herzegovina
                                  Europe 1977
                                               69.860 4086000
                                                                  3528.4813
42
      Bosnia and Herzegovina
                                  Europe 1997
                                               73.244 3607000
                                                                  4766.3559
43
                                  Africa 1952
                     Botswana
                                               47.622
                                                        442308
                                                                   851.2411
44
                                  Africa 1957
                                               49.618
                                                        474639
                                                                   918.2325
                     Botswana
45
                                  Africa 1962
                                               51.520
                                                                   983.6540
                     Botswana
                                                        512764
46
                                               53.298
                     Botswana
                                  Africa 1967
                                                        553541
                                                                  1214.7093
47
                     Botswana
                                  Africa 1972
                                               56.024
                                                        619351
                                                                  2263.6111
48
                     Botswana
                                  Africa 1977
                                               59.319
                                                        781472
                                                                  3214.8578
49
                                  Africa 1982
                                               61.484
                                                        970347
                                                                  4551.1421
                     Botswana
50
                                  Africa 1987
                     Botswana
                                               63.622 1151184
                                                                  6205.8839
51
                                  Africa 1992
                                               62.745 1342614
                                                                  7954.1116
                     Botswana
52
                     Botswana
                                  Africa 1997
                                               52.556 1536536
                                                                  8647.1423
53
                                  Africa 2002
                                                                 11003.6051
                     Botswana
                                               46.634 1630347
54
                     Botswana
                                  Africa 2007
                                               50.728 1639131
                                                                 12569.8518
55
                      Burundi
                                  Africa 1952
                                               39.031 2445618
                                                                   339.2965
56
                      Burundi
                                  Africa 1957
                                               40.533 2667518
                                                                   379.5646
57
                      Burundi
                                  Africa 1962
                                               42.045 2961915
                                                                   355.2032
58
                      Burundi
                                  Africa 1967
                                               43.548 3330989
                                                                   412.9775
59
                      Burundi
                                  Africa 1972
                                               44.057 3529983
                                                                   464.0995
60
                      Burundi
                                  Africa 1977
                                               45.910 3834415
                                                                   556.1033
                                  Africa 1952
                                                                  1071.3107
61
    Central African Republic
                                               35.463 1291695
    Central African Republic
                                  Africa 1957
                                               37.464 1392284
                                                                  1190.8443
```

```
63 Central African Republic
                                 Africa 1962
                                               39.475 1523478
                                                                 1193.0688
64 Central African Republic
                                 Africa 1967
                                               41.478 1733638
                                                                 1136.0566
                                               43.457 1927260
65
   Central African Republic
                                 Africa 1972
                                                                 1070.0133
66 Central African Republic
                                 Africa 1977
                                               46.775 2167533
                                                                 1109.3743
   Central African Republic
67
                                 Africa 1982
                                               48.295 2476971
                                                                  956.7530
   Central African Republic
                                 Africa 1987
                                               50.485 2840009
                                                                  844.8764
   Central African Republic
                                 Africa 1992
                                               49.396 3265124
                                                                  747.9055
70
   Central African Republic
                                 Africa 1997
                                               46.066 3696513
                                                                  740.5063
   Central African Republic
71
                                 Africa 2002
                                               43.308 4048013
                                                                  738.6906
72
                         Chad
                                 Africa 1952
                                               38.092 2682462
                                                                 1178.6659
73
                         Chad
                                 Africa 1957
                                               39.881 2894855
                                                                 1308.4956
74
                         Chad
                                 Africa 1962
                                               41.716 3150417
                                                                 1389.8176
75
                                 Africa 1967
                         Chad
                                               43.601 3495967
                                                                 1196.8106
76
                         Chad
                                 Africa 1972
                                               45.569 3899068
                                                                 1104.1040
77
                      Comoros
                                 Africa 1952
                                               40.715
                                                        153936
                                                                 1102.9909
78
                                               42.460
                      Comoros
                                 Africa 1957
                                                        170928
                                                                 1211.1485
79
                      Comoros
                                 Africa 1962
                                               44.467
                                                        191689
                                                                 1406.6483
                                 Africa 1967
80
                                               46.472
                                                                 1876.0296
                      Comoros
                                                        217378
                                               48.944
81
                      Comoros
                                 Africa 1972
                                                        250027
                                                                 1937.5777
82
                                 Africa 1977
                                               50.939
                                                        304739
                                                                 1172.6030
                      Comoros
83
                      Comoros
                                 Africa 1982
                                               52.933
                                                        348643
                                                                 1267.1001
84
                      Comoros
                                 Africa 1987
                                               54.926
                                                        395114
                                                                 1315.9808
                                 Africa 1992
85
                      Comoros
                                               57.939
                                                        454429
                                                                 1246.9074
86
                      Comoros
                                 Africa 1997
                                               60.660
                                                        527982
                                                                 1173.6182
87
                      Comoros
                                 Africa 2002
                                               62.974
                                                        614382
                                                                 1075.8116
88
                      Comoros
                                 Africa 2007
                                               65.152
                                                       710960
                                                                  986.1479
                  Congo, Rep.
89
                                 Africa 1952
                                               42.111
                                                        854885
                                                                 2125.6214
90
                  Congo, Rep.
                                 Africa 1957
                                               45.053
                                                        940458
                                                                 2315.0566
                  Congo, Rep.
91
                                 Africa 1962
                                               48.435 1047924
                                                                 2464.7832
92
                  Congo, Rep.
                                 Africa 1967
                                               52.040 1179760
                                                                 2677.9396
93
                  Congo, Rep.
                                 Africa 1972
                                               54.907 1340458
                                                                 3213.1527
94
                  Congo, Rep.
                                 Africa 1977
                                               55.625 1536769
                                                                 3259.1790
95
                  Congo, Rep.
                                 Africa 1982
                                               56.695 1774735
                                                                 4879.5075
96
                  Congo, Rep.
                                                                 4201.1949
                                 Africa 1987
                                               57.470 2064095
97
                  Congo, Rep.
                                 Africa 1992
                                               56.433 2409073
                                                                 4016.2395
98
                  Congo, Rep.
                                 Africa 1997
                                               52.962 2800947
                                                                 3484.1644
99
                  Congo, Rep.
                                 Africa 2002
                                               52.970 3328795
                                                                 3484.0620
100
                  Congo, Rep.
                                 Africa 2007
                                               55.322 3800610
                                                                 3632.5578
101
                                               57.206
                  Costa Rica
                               Americas 1952
                                                       926317
                                                                 2627.0095
102
                  Costa Rica
                               Americas 1957
                                               60.026 1112300
                                                                 2990.0108
103
                  Costa Rica Americas 1962
                                               62.842 1345187
                                                                 3460.9370
104
                  Costa Rica
                                               65.424 1588717
                               Americas 1967
                                                                 4161.7278
105
                  Costa Rica Americas 1972
                                               67.849 1834796
                                                                 5118.1469
```

| 106 | Costa Rica | Americas | 1977 | 70.750 | 2108457 | 5926.8770 |
|------|--------------------|----------|------|--------|---------|-----------|
| 107 | Costa Rica | Americas | 1982 | 73.450 | 2424367 | 5262.7348 |
| 108 | Costa Rica | Americas | 1987 | 74.752 | 2799811 | 5629.9153 |
| 109 | Costa Rica | Americas | 1992 | 75.713 | 3173216 | 6160.4163 |
| 110 | Costa Rica | Americas | 1997 | 77.260 | 3518107 | 6677.0453 |
| 111 | Costa Rica | Americas | 2002 | 78.123 | 3834934 | 7723.4472 |
| 112 | Cote d'Ivoire | Africa | 1952 | 40.477 | 2977019 | 1388.5947 |
| 113 | Cote d'Ivoire | Africa | 1957 | 42.469 | 3300000 | 1500.8959 |
| 114 | Cote d'Ivoire | Africa | 1962 | 44.930 | 3832408 | 1728.8694 |
| 115 | Croatia | Europe | 1952 | 61.210 | 3882229 | 3119.2365 |
| 116 | Croatia | Europe | 1957 | 64.770 | 3991242 | 4338.2316 |
| 117 | Croatia | Europe | 1962 | 67.130 | 4076557 | 5477.8900 |
| 118 | Djibouti | Africa | | 34.812 | 63149 | 2669.5295 |
| 119 | Djibouti | Africa | 1957 | 37.328 | 71851 | 2864.9691 |
| 120 | Djibouti | Africa | 1962 | 39.693 | 89898 | 3020.9893 |
| 121 | Djibouti | Africa | 1967 | 42.074 | 127617 | 3020.0505 |
| 122 | Djibouti | Africa | | 44.366 | 178848 | 3694.2124 |
| 123 | Djibouti | Africa | 1977 | 46.519 | | 3081.7610 |
| 124 | Djibouti | Africa | | 48.812 | 305991 | 2879.4681 |
| 125 | Djibouti | Africa | | 50.040 | 311025 | 2880.1026 |
| 126 | Djibouti | Africa | | 51.604 | 384156 | 2377.1562 |
| 127 | Djibouti | Africa | | 53.157 | | 1895.0170 |
| 128 | Djibouti | Africa | | 53.373 | | 1908.2609 |
| 129 | Djibouti | Africa | | 54.791 | 496374 | 2082.4816 |
| 130 | Dominican Republic | Americas | | | 2491346 | 1397.7171 |
| 131 | Dominican Republic | Americas | | | 2923186 | 1544.4030 |
| 132 | Dominican Republic | Americas | | | 3453434 | 1662.1374 |
| 133 | Dominican Republic | Americas | | | 4049146 | 1653.7230 |
| 134 | Ecuador | Americas | | | 3548753 | 3522.1107 |
| 135 | Ecuador | Americas | | | 4058385 | 3780.5467 |
| 136 | El Salvador | Americas | | | 2042865 | 3048.3029 |
| 137 | El Salvador | Americas | | | 2355805 | 3421.5232 |
| 138 | El Salvador | Americas | | | 2747687 | 3776.8036 |
| 139 | El Salvador | Americas | | | 3232927 | 4358.5954 |
| 140 | El Salvador | Americas | | | 3790903 | 4520.2460 |
| 141 | Equatorial Guinea | Africa | | 34.482 | 216964 | 375.6431 |
| 142 | Equatorial Guinea | Africa | | 35.983 | 232922 | 426.0964 |
| 143 | Equatorial Guinea | Africa | | 37.485 | 249220 | 582.8420 |
| 144 | Equatorial Guinea | Africa | | 38.987 | 259864 | 915.5960 |
| 145 | Equatorial Guinea | Africa | | 40.516 | 277603 | 672.4123 |
| 146 | Equatorial Guinea | Africa | | 42.024 | 192675 | 958.5668 |
| 147 | Equatorial Guinea | Africa | | 43.662 | 285483 | 927.8253 |
| 148 | Equatorial Guinea | Africa | | 45.664 | 341244 | 966.8968 |
| 1 10 | ndageorian gainea | niiica | 1001 | 10.004 | 0 11277 | 500.0500 |

| 149 | Equatorial Guinea | Africa | 1992 | 47.545 | 387838 | 1132.0550 |
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| 150 | Equatorial Guinea | Africa | 1997 | 48.245 | 439971 | 2814.4808 |
| 151 | Equatorial Guinea | Africa | 2002 | 49.348 | 495627 | 7703.4959 |
| 152 | Equatorial Guinea | Africa | 2007 | 51.579 | 551201 | 12154.0897 |
| 153 | Eritrea | | 1952 | 35.928 | 1438760 | 328.9406 |
| 154 | Eritrea | Africa | 1957 | 38.047 | 1542611 | 344.1619 |
| 155 | Eritrea | Africa | 1962 | 40.158 | 1666618 | 380.9958 |
| 156 | Eritrea | Africa | 1967 | 42.189 | 1820319 | 468.7950 |
| 157 | Eritrea | Africa | 1972 | 44.142 | 2260187 | 514.3242 |
| 158 | Eritrea | Africa | 1977 | 44.535 | 2512642 | 505.7538 |
| 159 | Eritrea | Africa | 1982 | 43.890 | 2637297 | 524.8758 |
| 160 | Eritrea | Africa | 1987 | 46.453 | 2915959 | 521.1341 |
| 161 | Eritrea | Africa | 1992 | 49.991 | 3668440 | 582.8585 |
| 162 | Eritrea | Africa | 1997 | 53.378 | 4058319 | 913.4708 |
| 163 | Finland | Europe | 1952 | 66.550 | 4090500 | 6424.5191 |
| 164 | Gabon | Africa | 1952 | 37.003 | 420702 | 4293.4765 |
| 165 | Gabon | Africa | 1957 | 38.999 | 434904 | 4976.1981 |
| 166 | Gabon | Africa | 1962 | 40.489 | 455661 | 6631.4592 |
| 167 | Gabon | Africa | 1967 | 44.598 | 489004 | 8358.7620 |
| 168 | Gabon | Africa | 1972 | 48.690 | 537977 | 11401.9484 |
| 169 | Gabon | Africa | 1977 | 52.790 | 706367 | 21745.5733 |
| 170 | Gabon | Africa | 1982 | 56.564 | 753874 | 15113.3619 |
| 171 | Gabon | Africa | 1987 | 60.190 | 880397 | 11864.4084 |
| 172 | Gabon | Africa | 1992 | 61.366 | 985739 | 13522.1575 |
| 173 | Gabon | Africa | 1997 | 60.461 | 1126189 | 14722.8419 |
| 174 | Gabon | Africa | 2002 | 56.761 | 1299304 | 12521.7139 |
| 175 | Gabon | Africa | 2007 | 56.735 | 1454867 | 13206.4845 |
| 176 | Gambia | Africa | 1952 | 30.000 | 284320 | 485.2307 |
| 177 | Gambia | Africa | 1957 | 32.065 | 323150 | 520.9267 |
| 178 | Gambia | Africa | 1962 | 33.896 | 374020 | 599.6503 |
| 179 | Gambia | Africa | 1967 | 35.857 | 439593 | 734.7829 |
| 180 | Gambia | Africa | 1972 | 38.308 | 517101 | 756.0868 |
| 181 | Gambia | Africa | 1977 | 41.842 | 608274 | 884.7553 |
| 182 | Gambia | Africa | 1982 | 45.580 | 715523 | 835.8096 |
| 183 | Gambia | Africa | 1987 | 49.265 | 848406 | 611.6589 |
| 184 | Gambia | Africa | 1992 | 52.644 | 1025384 | 665.6244 |
| 185 | Gambia | Africa | 1997 | 55.861 | 1235767 | 653.7302 |
| 186 | Gambia | Africa | 2002 | 58.041 | 1457766 | 660.5856 |
| 187 | Gambia | Africa | 2007 | 59.448 | 1688359 | 752.7497 |
| 188 | Guatemala | Americas | 1952 | 42.023 | 3146381 | 2428.2378 |
| 189 | Guatemala | Americas | 1957 | 44.142 | 3640876 | 2617.1560 |
| 190 | Guinea | Africa | 1952 | 33.609 | 2664249 | 510.1965 |
| 191 | Guinea | Africa | 1957 | 34.558 | 2876726 | 576.2670 |
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| 400 | a : | A.C | 4000 | 05 750 | 04.40000 | 606 0707 |
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| 192 | Guinea | Africa | | | 3140003 | 686.3737 |
| 193 | Guinea | Africa | | | 3451418 | 708.7595 |
| 194 | Guinea | Africa | | | 3811387 | 741.6662 |
| 195 | Guinea-Bissau | Africa | | 32.500 | 580653 | 299.8503 |
| 196 | Guinea-Bissau | Africa | | | | 431.7905 |
| 197 | Guinea-Bissau | Africa | | | | 522.0344 |
| 198 | Guinea-Bissau | Africa | | | | 715.5806 |
| 199 | Guinea-Bissau | Africa | | 36.486 | | 820.2246 |
| 200 | Guinea-Bissau | Africa | | 37.465 | | 764.7260 |
| 201 | Guinea-Bissau | Africa | | 39.327 | | 838.1240 |
| 202 | Guinea-Bissau | Africa | | 41.245 | 927524 | 736.4154 |
| 203 | Guinea-Bissau | Africa | | | 1050938 | 745.5399 |
| 204 | Guinea-Bissau | Africa | | | 1193708 | 796.6645 |
| 205 | Guinea-Bissau | Africa | | | 1332459 | 575.7047 |
| 206 | Guinea-Bissau | Africa | 2007 | | 1472041 | 579.2317 |
| 207 | Haiti | Americas | 1952 | 37.579 | 3201488 | 1840.3669 |
| 208 | Haiti | Americas | 1957 | 40.696 | 3507701 | 1726.8879 |
| 209 | Haiti | Americas | 1962 | 43.590 | 3880130 | 1796.5890 |
| 210 | Honduras | Americas | 1952 | 41.912 | 1517453 | 2194.9262 |
| 211 | Honduras | Americas | 1957 | 44.665 | 1770390 | 2220.4877 |
| 212 | Honduras | Americas | 1962 | 48.041 | 2090162 | 2291.1568 |
| 213 | Honduras | Americas | 1967 | 50.924 | 2500689 | 2538.2694 |
| 214 | Honduras | Americas | 1972 | 53.884 | 2965146 | 2529.8423 |
| 215 | Honduras | Americas | 1977 | 57.402 | 3055235 | 3203.2081 |
| 216 | Honduras | Americas | 1982 | 60.909 | 3669448 | 3121.7608 |
| 217 | Hong Kong, China | Asia | 1952 | 60.960 | 2125900 | 3054.4212 |
| 218 | Hong Kong, China | Asia | 1957 | 64.750 | 2736300 | 3629.0765 |
| 219 | Hong Kong, China | Asia | 1962 | 67.650 | 3305200 | 4692.6483 |
| 220 | Hong Kong, China | Asia | 1967 | 70.000 | 3722800 | 6197.9628 |
| 221 | Iceland | Europe | 1952 | 72.490 | 147962 | 7267.6884 |
| 222 | Iceland | Europe | 1957 | 73.470 | 165110 | 9244.0014 |
| 223 | Iceland | Europe | 1962 | 73.680 | 182053 | 10350.1591 |
| 224 | Iceland | Europe | 1967 | 73.730 | 198676 | 13319.8957 |
| 225 | Iceland | Europe | 1972 | 74.460 | 209275 | 15798.0636 |
| 226 | Iceland | Europe | 1977 | 76.110 | 221823 | 19654.9625 |
| 227 | Iceland | Europe | 1982 | 76.990 | 233997 | 23269.6075 |
| 228 | Iceland | Europe | | | 244676 | 26923.2063 |
| 229 | Iceland | Europe | | | | 25144.3920 |
| 230 | Iceland | Europe | | | 271192 | 28061.0997 |
| 231 | Iceland | Europe | | | | 31163.2020 |
| 232 | Iceland | Europe | | | | 36180.7892 |
| 233 | Ireland | Europe | | | 2952156 | 5210.2803 |
| 234 | Ireland | Europe | | | 2878220 | 5599.0779 |
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| 235 | Ireland | _ | | | 2830000 | |
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| 236 | Ireland | _ | | | 2900100 | |
| 237 | Ireland | Europe | 1972 | 71.280 | 3024400 | 9530.7729 |
| 238 | Ireland | Europe | 1977 | 72.030 | 3271900 | 11150.9811 |
| 239 | Ireland | Europe | 1982 | 73.100 | 3480000 | 12618.3214 |
| 240 | Ireland | Europe | 1987 | 74.360 | 3539900 | 13872.8665 |
| 241 | Ireland | Europe | 1992 | 75.467 | 3557761 | 17558.8155 |
| 242 | Ireland | Europe | 1997 | 76.122 | 3667233 | 24521.9471 |
| 243 | Ireland | Europe | 2002 | 77.783 | 3879155 | 34077.0494 |
| 244 | Israel | Asia | 1952 | 65.390 | 1620914 | 4086.5221 |
| 245 | Israel | Asia | 1957 | 67.840 | 1944401 | 5385.2785 |
| 246 | Israel | Asia | 1962 | 69.390 | 2310904 | 7105.6307 |
| 247 | Israel | Asia | 1967 | 70.750 | 2693585 | 8393.7414 |
| 248 | Israel | Asia | 1972 | 71.630 | 3095893 | 12786.9322 |
| 249 | Israel | Asia | 1977 | 73.060 | 3495918 | 13306.6192 |
| 250 | Israel | Asia | 1982 | 74.450 | 3858421 | 15367.0292 |
| 251 | Jamaica | Americas | 1952 | 58.530 | 1426095 | 2898.5309 |
| 252 | Jamaica | Americas | 1957 | 62.610 | 1535090 | 4756.5258 |
| 253 | Jamaica | Americas | 1962 | 65.610 | 1665128 | 5246.1075 |
| 254 | Jamaica | Americas | 1967 | 67.510 | 1861096 | 6124.7035 |
| 255 | Jamaica | Americas | 1972 | 69.000 | 1997616 | 7433.8893 |
| 256 | Jamaica | Americas | 1977 | 70.110 | 2156814 | 6650.1956 |
| 257 | Jamaica | Americas | 1982 | 71.210 | 2298309 | |
| 258 | Jamaica | Americas | 1987 | | 2326606 | |
| 259 | Jamaica | | | | 2378618 | |
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| 262 | Jamaica | | | | 2780132 | |
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| 267 | Jordan | | 1972 | | 1613551 | 2110.8563 |
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| 269 | Jordan | | 1982 | | 2347031 | |
| 270 | Jordan | | 1987 | | | 4448.6799 |
| 271 | Jordan | | 1992 | | 3867409 | 3431.5936 |
| 272 | Kuwait | | 1952 | 55.565 | | 108382.3529 |
| 273 | Kuwait | | 1957 | 58.033 | | 113523.1329 |
| 274 | Kuwait | | 1962 | 60.470 | | 95458.1118 |
| 275 | Kuwait | | 1967 | 64.624 | | 80894.8833 |
| 276 | Kuwait | | 1972 | | | 109347.8670 |
| 277 | Kuwait | | 1977 | | 1140357 | |
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| 278 | Kuwait | | | | 1497494 | |
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| 279 | Kuwait | Asia | | | 1891487 | |
| 280 | Kuwait | Asia | 1992 | 75.190 | 1418095 | 34932.9196 |
| 281 | Kuwait | Asia | 1997 | 76.156 | 1765345 | 40300.6200 |
| 282 | Kuwait | Asia | 2002 | 76.904 | 2111561 | 35110.1057 |
| 283 | Kuwait | Asia | 2007 | 77.588 | 2505559 | 47306.9898 |
| 284 | Lebanon | Asia | 1952 | 55.928 | 1439529 | 4834.8041 |
| 285 | Lebanon | Asia | 1957 | 59.489 | 1647412 | 6089.7869 |
| 286 | Lebanon | Asia | 1962 | 62.094 | 1886848 | 5714.5606 |
| 287 | Lebanon | Asia | 1967 | 63.870 | 2186894 | 6006.9830 |
| 288 | Lebanon | Asia | 1972 | 65.421 | 2680018 | 7486.3843 |
| 289 | Lebanon | Asia | 1977 | 66.099 | 3115787 | 8659.6968 |
| 290 | Lebanon | Asia | 1982 | 66.983 | 3086876 | 7640.5195 |
| 291 | Lebanon | Asia | 1987 | 67.926 | 3089353 | 5377.0913 |
| 292 | Lebanon | Asia | 1992 | 69.292 | 3219994 | 6890.8069 |
| 293 | Lebanon | Asia | 1997 | 70.265 | 3430388 | 8754.9639 |
| 294 | Lebanon | Asia | 2002 | 71.028 | 3677780 | 9313.9388 |
| 295 | Lebanon | Asia | 2007 | 71.993 | 3921278 | 10461.0587 |
| 296 | Lesotho | Africa | 1952 | 42.138 | 748747 | 298.8462 |
| 297 | Lesotho | Africa | 1957 | 45.047 | 813338 | 335.9971 |
| 298 | Lesotho | Africa | 1962 | 47.747 | 893143 | 411.8006 |
| 299 | Lesotho | Africa | 1967 | 48.492 | 996380 | 498.6390 |
| 300 | Lesotho | Africa | 1972 | 49.767 | 1116779 | 496.5816 |
| 301 | Lesotho | Africa | 1977 | 52.208 | 1251524 | 745.3695 |
| 302 | Lesotho | Africa | 1982 | 55.078 | 1411807 | 797.2631 |
| 303 | Lesotho | Africa | 1987 | 57.180 | 1599200 | 773.9932 |
| 304 | Lesotho | Africa | 1992 | 59.685 | 1803195 | 977.4863 |
| 305 | Lesotho | Africa | 1997 | 55.558 | 1982823 | 1186.1480 |
| 306 | Lesotho | Africa | 2002 | 44.593 | 2046772 | 1275.1846 |
| 307 | Lesotho | Africa | 2007 | 42.592 | 2012649 | 1569.3314 |
| 308 | Liberia | Africa | 1952 | 38.480 | 863308 | 575.5730 |
| 309 | Liberia | Africa | 1957 | 39.486 | 975950 | 620.9700 |
| 310 | Liberia | Africa | 1962 | 40.502 | 1112796 | 634.1952 |
| 311 | Liberia | Africa | 1967 | 41.536 | 1279406 | 713.6036 |
| 312 | Liberia | Africa | 1972 | | 1482628 | 803.0055 |
| 313 | Liberia | Africa | 1977 | | 1703617 | 640.3224 |
| 314 | Liberia | Africa | | | 1956875 | 572.1996 |
| 315 | Liberia | Africa | 1987 | | 2269414 | 506.1139 |
| 316 | Liberia | Africa | | | 1912974 | 636.6229 |
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| 320 | Libya | Africa | | | 1019729 | 2387.5481 |
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| 321 | Libya | Africa 1057 | 45.289 12015 | 578 3448.2844 |
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| 328 | Malawi | Africa 1957 Africa 1952 | | |
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| 330 | Malawi | | | |
| 331 | Mali | Africa 1952 | | |
| 332 | Mauritania | | | |
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| 340 | Mauritania | Africa 1992 | | |
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| 344 | Mauritius | Africa 1952 | | |
| 345 | Mauritius | Africa 1957 | 58.089 6098 | |
| 346 | Mauritius | Africa 1962 | 60.246 7010 | |
| 347 | Mauritius | Africa 1967 | | |
| 348 | Mauritius | Africa 1972 | 62.944 8513 | |
| 349 | Mauritius | Africa 1977 | 64.930 9130 | |
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| 351 | Mauritius | Africa 1987 | | |
| 352 | Mauritius | Africa 1992 | | |
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| 354 | Mauritius | Africa 2002 | 71.954 12002 | |
| 355 | Mauritius | Africa 2007 | 72.801 12508 | |
| 356 | Mongolia | Asia 1952 | 42.244 8006 | |
| 357 | Mongolia | Asia 1957 | 45.248 8821 | |
| 358 | Mongolia | Asia 1962 | 48.251 10102 | |
| 359 | Mongolia | Asia 1967 | 51.253 11495 | |
| 360 | Mongolia | Asia 1972 | 53.754 13205 | |
| 361 | Mongolia | Asia 1977 | 55.491 15280 | 000 1647.5117 |
| 362 | Mongolia | Asia 1982 | 57.489 17560 | 2000.6031 |
| 363 | Mongolia | Asia 1987 | 60.222 20151 | 2338.0083 |
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| 364 | Mongolia | Asia | 1992 | 61.271 | 2312802 | 1785.4020 |
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| 365 | Mongolia | Asia | 1997 | 63.625 | 2494803 | 1902.2521 |
| 366 | Mongolia | Asia | 2002 | 65.033 | 2674234 | 2140.7393 |
| 367 | Mongolia | Asia | 2007 | 66.803 | 2874127 | 3095.7723 |
| 368 | Montenegro | Europe | 1952 | 59.164 | 413834 | 2647.5856 |
| 369 | Montenegro | Europe | 1957 | 61.448 | 442829 | 3682.2599 |
| 370 | Montenegro | Europe | 1962 | 63.728 | 474528 | 4649.5938 |
| 371 | Montenegro | Europe | 1967 | 67.178 | 501035 | 5907.8509 |
| 372 | Montenegro | Europe | 1972 | 70.636 | 527678 | 7778.4140 |
| 373 | Montenegro | Europe | 1977 | 73.066 | 560073 | 9595.9299 |
| 374 | Montenegro | Europe | 1982 | 74.101 | 562548 | 11222.5876 |
| 375 | Montenegro | Europe | 1987 | 74.865 | 569473 | 11732.5102 |
| 376 | Montenegro | Europe | 1992 | 75.435 | 621621 | 7003.3390 |
| 377 | Montenegro | Europe | 1997 | 75.445 | 692651 | 6465.6133 |
| 378 | Montenegro | Europe | 2002 | 73.981 | 720230 | 6557.1943 |
| 379 | Montenegro | Europe | 2007 | 74.543 | 684736 | 9253.8961 |
| 380 | Namibia | Africa | 1952 | 41.725 | 485831 | 2423.7804 |
| 381 | Namibia | Africa | 1957 | 45.226 | 548080 | 2621.4481 |
| 382 | Namibia | Africa | 1962 | 48.386 | 621392 | 3173.2156 |
| 383 | Namibia | Africa | 1967 | 51.159 | 706640 | 3793.6948 |
| 384 | Namibia | Africa | 1972 | 53.867 | 821782 | 3746.0809 |
| 385 | Namibia | Africa | 1977 | 56.437 | 977026 | 3876.4860 |
| 386 | Namibia | Africa | 1982 | 58.968 | 1099010 | 4191.1005 |
| 387 | Namibia | Africa | 1987 | 60.835 | 1278184 | 3693.7313 |
| 388 | Namibia | Africa | 1992 | 61.999 | 1554253 | 3804.5380 |
| 389 | Namibia | Africa | 1997 | 58.909 | 1774766 | 3899.5243 |
| 390 | Namibia | Africa | 2002 | 51.479 | 1972153 | 4072.3248 |
| 391 | Namibia | Africa | 2007 | 52.906 | 2055080 | 4811.0604 |
| 392 | New Zealand | Oceania | 1952 | 69.390 | 1994794 | 10556.5757 |
| 393 | New Zealand | Oceania | 1957 | 70.260 | 2229407 | 12247.3953 |
| 394 | New Zealand | Oceania | 1962 | 71.240 | 2488550 | 13175.6780 |
| 395 | New Zealand | Oceania | 1967 | 71.520 | 2728150 | 14463.9189 |
| 396 | New Zealand | Oceania | 1972 | 71.890 | 2929100 | 16046.0373 |
| 397 | New Zealand | Oceania | 1977 | 72.220 | 3164900 | 16233.7177 |
| 398 | New Zealand | Oceania | 1982 | 73.840 | 3210650 | 17632.4104 |
| 399 | New Zealand | Oceania | 1987 | 74.320 | 3317166 | 19007.1913 |
| 400 | New Zealand | Oceania | 1992 | 76.330 | 3437674 | 18363.3249 |
| 401 | New Zealand | Oceania | 1997 | 77.550 | 3676187 | 21050.4138 |
| 402 | New Zealand | Oceania | 2002 | 79.110 | 3908037 | 23189.8014 |
| 403 | Nicaragua | Americas | 1952 | 42.314 | 1165790 | 3112.3639 |
| 404 | Nicaragua | Americas | 1957 | 45.432 | 1358828 | 3457.4159 |
| 405 | Nicaragua | Americas | 1962 | 48.632 | 1590597 | 3634.3644 |
| 406 | Nicaragua | Americas | 1967 | 51.884 | 1865490 | 4643.3935 |
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| 407 | Nicaragua | Americas | 1972 | 55.151 | 2182908 | 4688.5933 |
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| 408 | Nicaragua | | | | 2554598 | 5486.3711 |
| 409 | Nicaragua | | | | 2979423 | 3470.3382 |
| 410 | Nicaragua | | | | 3344353 | 2955.9844 |
| 411 | Nicaragua | | 1992 | 65.843 | 4017939 | 2170.1517 |
| 412 | Niger | Africa | 1952 | 37.444 | 3379468 | 761.8794 |
| 413 | Niger | Africa | 1957 | 38.598 | 3692184 | 835.5234 |
| 414 | Niger | Africa | 1962 | 39.487 | 4076008 | 997.7661 |
| 415 | Norway | Europe | 1952 | 72.670 | 3327728 | 10095.4217 |
| 416 | Norway | Europe | 1957 | 73.440 | 3491938 | 11653.9730 |
| 417 | Norway | Europe | 1962 | 73.470 | 3638919 | 13450.4015 |
| 418 | Norway | Europe | 1967 | 74.080 | 3786019 | 16361.8765 |
| 419 | Norway | Europe | 1972 | 74.340 | 3933004 | 18965.0555 |
| 420 | Norway | Europe | 1977 | 75.370 | 4043205 | 23311.3494 |
| 421 | Oman | Asia | 1952 | 37.578 | 507833 | 1828.2303 |
| 422 | Oman | Asia | 1957 | 40.080 | 561977 | 2242.7466 |
| 423 | Oman | Asia | 1962 | 43.165 | 628164 | 2924.6381 |
| 424 | Oman | Asia | 1967 | 46.988 | 714775 | 4720.9427 |
| 425 | Oman | Asia | 1972 | 52.143 | 829050 | 10618.0385 |
| 426 | Oman | Asia | 1977 | 57.367 | 1004533 | 11848.3439 |
| 427 | Oman | Asia | 1982 | 62.728 | 1301048 | 12954.7910 |
| 428 | Oman | Asia | 1987 | 67.734 | 1593882 | 18115.2231 |
| 429 | Oman | Asia | 1992 | 71.197 | 1915208 | 18616.7069 |
| 430 | Oman | Asia | 1997 | 72.499 | 2283635 | 19702.0558 |
| 431 | \mathtt{Oman} | Asia | 2002 | 74.193 | 2713462 | 19774.8369 |
| 432 | Oman | Asia | 2007 | 75.640 | 3204897 | 22316.1929 |
| 433 | Panama | Americas | 1952 | 55.191 | 940080 | 2480.3803 |
| 434 | Panama | Americas | 1957 | 59.201 | 1063506 | 2961.8009 |
| 435 | Panama | Americas | 1962 | | 1215725 | 3536.5403 |
| 436 | Panama | Americas | 1967 | | 1405486 | 4421.0091 |
| 437 | Panama | Americas | | | 1616384 | 5364.2497 |
| 438 | Panama | Americas | 1977 | | 1839782 | 5351.9121 |
| 439 | Panama | Americas | | 70.472 | 2036305 | 7009.6016 |
| 440 | Panama | Americas | | | 2253639 | 7034.7792 |
| 441 | Panama | Americas | | 72.462 | 2484997 | 6618.7431 |
| 442 | Panama | Americas | 1997 | 73.738 | 2734531 | 7113.6923 |
| 443 | Panama | Americas | | | 2990875 | 7356.0319 |
| 444 | Panama | Americas | | | 3242173 | 9809.1856 |
| 445 | Paraguay | Americas | | | 1555876 | 1952.3087 |
| 446 | Paraguay | Americas | | | 1770902 | 2046.1547 |
| 447 | Paraguay | Americas | | | 2009813 | 2148.0271 |
| 448 | Paraguay | | | | 2287985 | 2299.3763 |
| 449 | Paraguay | Americas | 1972 | 65.815 | 2614104 | 2523.3380 |

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66.353 2984494
450
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                                                                  3248.3733
451
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                                Americas 1982
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452
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                                Americas 1987
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453
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466
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                                                55.090
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467
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                      Reunion
                                  Africa 1977
                                                67.064
                                                        492095
                                                                  4319.8041
471
                      Reunion
                                  Africa 1982
                                                69.885
                                                        517810
                                                                  5267.2194
                                  Africa 1987
472
                      Reunion
                                                71.913
                                                        562035
                                                                  5303.3775
473
                      Reunion
                                  Africa 1992
                                                73.615
                                                        622191
                                                                  6101.2558
474
                      Reunion
                                  Africa 1997
                                                74.772
                                                        684810
                                                                  6071.9414
                      Reunion
475
                                  Africa 2002
                                                75.744
                                                        743981
                                                                  6316.1652
476
                                                76.442
                                                                  7670.1226
                      Reunion
                                  Africa 2007
                                                        798094
477
                       Rwanda
                                  Africa 1952
                                                40.000 2534927
                                                                   493.3239
478
                       Rwanda
                                  Africa 1957
                                                41.500 2822082
                                                                   540.2894
479
                       Rwanda
                                  Africa 1962
                                                43.000 3051242
                                                                   597.4731
                                                44.100 3451079
480
                       Rwanda
                                                                   510.9637
                                  Africa 1967
481
                       Rwanda
                                  Africa 1972
                                                44.600 3992121
                                                                   590.5807
482
       Sao Tome and Principe
                                  Africa 1952
                                                46.471
                                                         60011
                                                                   879.5836
483
       Sao Tome and Principe
                                                                   860.7369
                                  Africa 1957
                                                48.945
                                                         61325
484
       Sao Tome and Principe
                                  Africa 1962
                                                51.893
                                                                  1071.5511
                                                         65345
485
       Sao Tome and Principe
                                  Africa 1967
                                                54.425
                                                         70787
                                                                  1384.8406
486
       Sao Tome and Principe
                                  Africa 1972
                                                56.480
                                                         76595
                                                                  1532.9853
487
       Sao Tome and Principe
                                  Africa 1977
                                                         86796
                                                                  1737.5617
                                                58.550
488
       Sao Tome and Principe
                                  Africa 1982
                                                60.351
                                                         98593
                                                                  1890.2181
489
       Sao Tome and Principe
                                  Africa 1987
                                                61.728
                                                        110812
                                                                  1516.5255
490
       Sao Tome and Principe
                                                62.742
                                  Africa 1992
                                                        125911
                                                                  1428.7778
491
       Sao Tome and Principe
                                  Africa 1997
                                                63.306
                                                        145608
                                                                  1339.0760
492
       Sao Tome and Principe
                                  Africa 2002
                                                64.337
                                                        170372
                                                                  1353.0924
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| 402 | Coo Tomo and Dringing | Africo. | 2007 | 6E E00 | 100570 | 1500 /251 |
|------------|------------------------------------|----------------|------|--------|--------------------|------------------------|
| 493 | Sao Tome and Principe Saudi Arabia | Africa | | 65.528 | 199579 | 1598.4351 |
| 494 495 | | Asia Africa | | | 4005677 2755589 | 6459.5548 1450.3570 |
| | Senegal | | | | | |
| 496 | Senegal | Africa | | | 3054547 | 1567.6530 |
| 497 | Senegal | Africa | | | 3430243 | 1654.9887 |
| 498 | Senegal | Africa | | | 3965841 | 1612.4046 |
| 499 | Sierra Leone | Africa | | | 2143249 | 879.7877 |
| 500 | Sierra Leone | Africa | | | 2295678 | 1004.4844 |
| 501 | Sierra Leone | Africa | | | 2467895 | 1116.6399 |
| 502 | Sierra Leone | Africa | | | 2662190 | 1206.0435 |
| 503 | Sierra Leone | Africa | | | 2879013 | 1353.7598 |
| 504 | Sierra Leone | Africa | | | 3140897 | 1348.2852 |
| 505 | Sierra Leone | Africa | | | 3464522 | 1465.0108 |
| 506 | Sierra Leone | Africa | | | 3868905 | 1294.4478 |
| 507 | Singapore | Asia | | | 1127000 | 2315.1382 |
| 508 | Singapore | Asia | 1957 | 63.179 | 1445929 | 2843.1044 |
| 509 | Singapore | Asia | 1962 | 65.798 | 1750200 | 3674.7356 |
| 510 | Singapore | Asia | 1967 | 67.946 | 1977600 | 4977.4185 |
| 511 | Singapore | Asia | 1972 | 69.521 | 2152400 | 8597.7562 |
| 512 | Singapore | Asia | 1977 | 70.795 | 2325300 | 11210.0895 |
| 513 | Singapore | Asia | 1982 | 71.760 | 2651869 | 15169.1611 |
| 514 | Singapore | Asia | 1987 | 73.560 | 2794552 | 18861.5308 |
| 515 | Singapore | Asia | 1992 | 75.788 | 3235865 | 24769.8912 |
| 516 | Singapore | Asia | 1997 | 77.158 | 3802309 | 33519.4766 |
| 517 | Slovak Republic | Europe | 1952 | 64.360 | 3558137 | 5074.6591 |
| 518 | Slovak Republic | Europe | 1957 | 67.450 | 3844277 | 6093.2630 |
| 519 | Slovenia | Europe | 1952 | 65.570 | 1489518 | 4215.0417 |
| 520 | Slovenia | Europe | 1957 | 67.850 | 1533070 | 5862.2766 |
| 521 | Slovenia | Europe | 1962 | 69.150 | 1582962 | 7402.3034 |
| 522 | Slovenia | Europe | 1967 | 69.180 | 1646912 | 9405.4894 |
| 523 | Slovenia | Europe | 1972 | 69.820 | 1694510 | 12383.4862 |
| 524 | Slovenia | Europe | 1977 | 70.970 | 1746919 | 15277.0302 |
| 525 | Slovenia | Europe | 1982 | 71.063 | 1861252 | 17866.7218 |
| 526 | Slovenia | Europe | 1987 | 72.250 | 1945870 | 18678.5349 |
| 527 | Slovenia | Europe | 1992 | 73.640 | 1999210 | 14214.7168 |
| 528 | Slovenia | Europe | | | 2011612 | 17161.1073 |
| 529 | Slovenia | Europe | | | 2011497 | 20660.0194 |
| 530 | Slovenia | Europe | | | 2009245 | 25768.2576 |
| 531 | Somalia | Africa | | | 2526994 | 1135.7498 |
| 532 | Somalia | Africa | | | 2780415 | 1258.1474 |
| 533 | Somalia | Africa | | | 3080153 | 1369.4883 |
| 534 | Somalia | Africa | | | 3428839 | 1284.7332 |
| 535 | Somalia | Africa | | | 3840161 | 1254.5761 |
| | | | | | - · | - · · · - |

| 536 | Swaziland | Africa | 1952 | 41.407 | 290243 | 1148.3766 |
|-----|---------------------|----------|------|--------|---------|------------|
| 537 | Swaziland | Africa | 1957 | 43.424 | 326741 | 1244.7084 |
| 538 | Swaziland | Africa | 1962 | 44.992 | 370006 | 1856.1821 |
| 539 | Swaziland | Africa | 1967 | 46.633 | 420690 | 2613.1017 |
| 540 | Swaziland | Africa | 1972 | 49.552 | 480105 | 3364.8366 |
| 541 | Swaziland | Africa | 1977 | 52.537 | 551425 | 3781.4106 |
| 542 | Swaziland | Africa | 1982 | 55.561 | 649901 | 3895.3840 |
| 543 | Swaziland | Africa | 1987 | 57.678 | 779348 | 3984.8398 |
| 544 | Swaziland | Africa | 1992 | 58.474 | 962344 | 3553.0224 |
| 545 | Swaziland | Africa | 1997 | 54.289 | 1054486 | 3876.7685 |
| 546 | Swaziland | Africa | 2002 | 43.869 | 1130269 | 4128.1169 |
| 547 | Swaziland | Africa | 2007 | 39.613 | 1133066 | 4513.4806 |
| 548 | Syria | Asia | 1952 | 45.883 | 3661549 | 1643.4854 |
| 549 | Togo | Africa | 1952 | 38.596 | 1219113 | 859.8087 |
| 550 | Togo | Africa | 1957 | 41.208 | 1357445 | 925.9083 |
| 551 | Togo | Africa | 1962 | 43.922 | 1528098 | 1067.5348 |
| 552 | Togo | Africa | 1967 | 46.769 | 1735550 | 1477.5968 |
| 553 | Togo | Africa | 1972 | 49.759 | 2056351 | 1649.6602 |
| 554 | Togo | Africa | 1977 | 52.887 | 2308582 | 1532.7770 |
| 555 | Togo | Africa | 1982 | 55.471 | 2644765 | 1344.5780 |
| 556 | Togo | Africa | 1987 | 56.941 | 3154264 | 1202.2014 |
| 557 | Togo | Africa | 1992 | 58.061 | 3747553 | 1034.2989 |
| 558 | Trinidad and Tobago | Americas | 1952 | 59.100 | 662850 | 3023.2719 |
| 559 | Trinidad and Tobago | Americas | 1957 | 61.800 | 764900 | 4100.3934 |
| 560 | Trinidad and Tobago | Americas | 1962 | 64.900 | 887498 | 4997.5240 |
| 561 | Trinidad and Tobago | Americas | 1967 | 65.400 | 960155 | 5621.3685 |
| 562 | Trinidad and Tobago | Americas | 1972 | 65.900 | 975199 | 6619.5514 |
| 563 | Trinidad and Tobago | Americas | 1977 | 68.300 | 1039009 | 7899.5542 |
| 564 | Trinidad and Tobago | Americas | 1982 | 68.832 | 1116479 | 9119.5286 |
| 565 | Trinidad and Tobago | Americas | 1987 | 69.582 | 1191336 | 7388.5978 |
| 566 | Trinidad and Tobago | Americas | 1992 | 69.862 | 1183669 | 7370.9909 |
| 567 | Trinidad and Tobago | Americas | 1997 | 69.465 | 1138101 | 8792.5731 |
| 568 | Trinidad and Tobago | Americas | 2002 | 68.976 | 1101832 | 11460.6002 |
| 569 | Trinidad and Tobago | Americas | 2007 | 69.819 | 1056608 | 18008.5092 |
| 570 | Tunisia | Africa | 1952 | 44.600 | 3647735 | 1468.4756 |
| 571 | Tunisia | Africa | 1957 | 47.100 | 3950849 | 1395.2325 |
| 572 | Uruguay | Americas | 1952 | 66.071 | 2252965 | 5716.7667 |
| 573 | Uruguay | Americas | 1957 | 67.044 | 2424959 | 6150.7730 |
| 574 | Uruguay | Americas | 1962 | 68.253 | 2598466 | 5603.3577 |
| 575 | Uruguay | Americas | 1967 | 68.468 | 2748579 | 5444.6196 |
| 576 | Uruguay | Americas | 1972 | 68.673 | 2829526 | 5703.4089 |
| 577 | Uruguay | Americas | 1977 | 69.481 | 2873520 | 6504.3397 |
| 578 | Uruguay | Americas | 1982 | 70.805 | 2953997 | 6920.2231 |
| | - · | | | | | |

| 579 | Uruguay | Americas 1987 | 71.918 3045153 | 7452.3990 |
|-----|--------------------|---------------|----------------|------------|
| 580 | Uruguay | Americas 1992 | 72.752 3149262 | 8137.0048 |
| 581 | Uruguay | Americas 1997 | 74.223 3262838 | 9230.2407 |
| 582 | Uruguay | Americas 2002 | 75.307 3363085 | 7727.0020 |
| 583 | Uruguay | Americas 2007 | 76.384 3447496 | 10611.4630 |
| 584 | West Bank and Gaza | Asia 1952 | 43.160 1030585 | 1515.5923 |
| 585 | West Bank and Gaza | Asia 1957 | 45.671 1070439 | 1827.0677 |
| 586 | West Bank and Gaza | Asia 1962 | 48.127 1133134 | 2198.9563 |
| 587 | West Bank and Gaza | Asia 1967 | 51.631 1142636 | 2649.7150 |
| 588 | West Bank and Gaza | Asia 1972 | 56.532 1089572 | 3133.4093 |
| 589 | West Bank and Gaza | Asia 1977 | 60.765 1261091 | 3682.8315 |
| 590 | West Bank and Gaza | Asia 1982 | 64.406 1425876 | 4336.0321 |
| 591 | West Bank and Gaza | Asia 1987 | 67.046 1691210 | 5107.1974 |
| 592 | West Bank and Gaza | Asia 1992 | 69.718 2104779 | 6017.6548 |
| 593 | West Bank and Gaza | Asia 1997 | 71.096 2826046 | 7110.6676 |
| 594 | West Bank and Gaza | Asia 2002 | 72.370 3389578 | 4515.4876 |
| 595 | West Bank and Gaza | Asia 2007 | 73.422 4018332 | 3025.3498 |
| 596 | Zambia | Africa 1952 | 42.038 2672000 | 1147.3888 |
| 597 | Zambia | Africa 1957 | 44.077 3016000 | 1311.9568 |
| 598 | Zambia | Africa 1962 | 46.023 3421000 | 1452.7258 |
| 599 | Zambia | Africa 1967 | 47.768 3900000 | 1777.0773 |
| 600 | Zimbabwe | Africa 1952 | 48.451 3080907 | 406.8841 |
| 601 | Zimbabwe | Africa 1957 | 50.469 3646340 | 518.7643 |