**Exploring Weather Trends - Project Instructions**

**Summary**

In this project, you will analyze local and global temperature data and compare the temperature trends where you live to overall global temperature trends.

**Instructions**

Your goal will be to create a visualization and prepare a write up describing the similarities and differences between global temperature trends and temperature trends in the closest big city to where you live. To do this, you’ll follow the steps below:

* **Extract the data** from the database. There's a workspace in the next section that is connected to a database. You’ll need to export the temperature data for the world as well as for the closest big city to where you live. You can find a list of cities and countries in the city\_list table. To interact with the database, you'll need to write a SQL query.
  + Write a SQL query to extract the city level data. Export to CSV.
  + Write a SQL query to extract the global data. Export to CSV.
* **Open up the CSV** in whatever tool you feel most comfortable using. We suggest using Excel or Google sheets, but you are welcome to use another tool, such as Python or R.
* **Create a line chart** that compares your city’s temperatures with the global temperatures. Make sure to plot the *moving average* rather than the yearly averages in order to smooth out the lines, making trends more observable (the last concept in the previous lesson goes over how to do this in a spreadsheet).
* **Make observations** about the similarities and differences between the world averages and your city’s averages, as well as overall trends. Here are some questions to get you started.
  + Is your city hotter or cooler on average compared to the global average? Has the difference been consistent over time?
  + “How do the changes in your city’s temperatures over time compare to the changes in the global average?”
  + What does the overall trend look like? Is the world getting hotter or cooler? Has the trend been consistent over the last few hundred years?

**Submission**

Your submission should be a PDF that includes:

* **An outline** of steps taken to prepare the data to be visualized in the chart, such as:
  + What tools did you use for each step? (Python, SQL, Excel, etc)
  + How did you calculate the moving average?
  + What were your key considerations when deciding how to visualize the trends?
* **Line chart** with local and global temperature trends
* At least **four observations** about the similarities and/or differences in the trends

**Rubric**

A Udacity reviewer will assess your project based on the criteria in the **[project rubric](https://review.udacity.com/" \l "!/rubrics/1125/view" \t "_blank)**. Use the rubric as a guide while you complete the project, then give yourself a quick self-assessment before you submit it.

I used the syntax to extract the global temperature data

SELECT \*

FROM global\_data;

I stay in Lagos Nigeria, however I extracted data for two other cities in Nigeria as well so I would have a larger dataset to work with to compare with my city’s local data to local data of other locations within my country.

SELECT year, city, Avg\_temp

FROM city\_data

WHERE city IN ('Lagos', 'Kano', 'Abuja');

After exporting the data, I sorted it. I also deleted the empty data column so comparism can be like for like for all years

ORIGINAL EXTRACT

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| year | avg\_temp(Global) | avg\_temp(Lagos) | avg\_temp(Kano) | avg\_temp(Abuja) |
| 1856 | 8 | 26.35 | 26.32 | 26.93 |
| 1857 | 7.76 | 25.45 | 25.43 | 24.67 |
| 1858 | 8.1 | 25.92 | 25.98 | 25.87 |
| 1859 | 8.25 | 26.18 | 25.78 | 25.31 |
| 1860 | 7.96 | 26.01 | 25.31 | 25.52 |
| 1861 | 7.85 | 25.95 | 25.25 | 25.56 |
| 1862 | 7.56 | 25.9 | 25.22 | 26.94 |
| 1873 | 8.35 | 26.46 | 26.55 | 25.77 |
| 1874 | 8.43 | 26.08 | 25.55 | 25.8 |
| 1875 | 7.86 | 25.82 | 25.41 | 25.42 |
| 1876 | 8.08 | 25.82 | 25.38 | 25.72 |
| 1877 | 8.54 | 26.35 | 25.96 | 25.97 |
| 1878 | 8.83 | 26.26 | 26.13 | 25.98 |
| 1879 | 8.17 | 25.67 | 25.48 | 25.36 |
| 1880 | 8.12 | 26.14 | 25.57 | 25.6 |
| 1881 | 8.27 | 26.39 | 26.01 | 25.93 |
| 1882 | 8.13 | 26.01 | 25.52 | 25.58 |
| 1883 | 7.98 | 26.42 | 25.86 | 25.9 |
| 1884 | 7.77 | 26.43 | 26.06 | 26.07 |
| 1885 | 7.92 | 26.01 | 22.6 | 24.84 |
| 1886 | 7.95 | 25.87 | 25.28 | 25.38 |
| 1887 | 7.91 | 25.09 | 24.95 | 24.82 |
| 1888 | 8.09 | 25.42 | 25.22 | 25.15 |
| 1889 | 8.32 | 25.34 | 25.31 | 25.21 |
| 1890 | 7.97 | 24.86 | 24.51 | 24.48 |
| 1891 | 8.02 | 25.29 | 25.06 | 25.02 |
| 1892 | 8.07 | 25.49 | 25.33 | 25.21 |
| 1893 | 8.06 | 25.67 | 25.31 | 25.21 |
| 1894 | 8.16 | 25.59 | 25.43 | 25.38 |
| 1895 | 8.15 | 25.92 | 25.76 | 25.58 |
| 1896 | 8.21 | 25.87 | 25.48 | 25.46 |
| 1897 | 8.29 | 26.29 | 25.92 | 25.93 |
| 1898 | 8.18 | 25.79 | 25.48 | 25.43 |
| 1899 | 8.4 | 26.31 | 25.82 | 25.83 |
| 1900 | 8.5 | 26.42 | 25.92 | 25.95 |
| 1901 | 8.54 | 26.53 | 25.87 | 25.84 |
| 1902 | 8.3 | 26.09 | 25.65 | 25.52 |
| 1903 | 8.22 | 25.68 | 25.47 | 25.5 |
| 1904 | 8.09 | 25.48 | 25.08 | 25.07 |
| 1905 | 8.23 | 26.16 | 24.97 | 25.4 |
| 1906 | 8.38 | 26.21 | 25.53 | 25.63 |
| 1907 | 7.95 | 25.96 | 25.07 | 25.35 |
| 1908 | 8.19 | 26.15 | 25.61 | 25.63 |
| 1909 | 8.18 | 26.08 | 25.9 | 25.86 |
| 1910 | 8.22 | 26.13 | 25.64 | 25.78 |
| 1911 | 8.18 | 25.72 | 25.7 | 25.53 |
| 1912 | 8.17 | 26.17 | 25.34 | 25.65 |
| 1913 | 8.3 | 26.65 | 26.31 | 26.21 |
| 1914 | 8.59 | 26.75 | 26.71 | 26.37 |
| 1915 | 8.59 | 26.81 | 26.36 | 26.12 |
| 1916 | 8.23 | 26.6 | 25.82 | 25.92 |
| 1917 | 8.02 | 26.96 | 26.63 | 26.64 |
| 1918 | 8.13 | 26.41 | 26.08 | 25.93 |
| 1919 | 8.38 | 26.7 | 26.35 | 26.5 |
| 1920 | 8.36 | 26.72 | 25.51 | 25.94 |
| 1921 | 8.57 | 26.77 | 26.04 | 26.31 |
| 1922 | 8.41 | 26.73 | 26.31 | 26.36 |
| 1923 | 8.42 | 26.63 | 26.09 | 26.11 |
| 1924 | 8.51 | 26.95 | 26.35 | 26.41 |
| 1925 | 8.53 | 26.64 | 26.01 | 25.79 |
| 1926 | 8.73 | 26.97 | 26.52 | 26.48 |
| 1927 | 8.52 | 26.88 | 26.45 | 26.36 |
| 1928 | 8.63 | 26.75 | 26.59 | 26.33 |
| 1929 | 8.24 | 26.48 | 26.08 | 26.09 |
| 1930 | 8.63 | 26.84 | 26.56 | 26.48 |
| 1931 | 8.72 | 26.85 | 27.07 | 26.82 |
| 1932 | 8.71 | 26.46 | 26.25 | 26.25 |
| 1933 | 8.34 | 26.93 | 26.62 | 26.5 |
| 1934 | 8.63 | 26.89 | 26.17 | 26.31 |
| 1935 | 8.52 | 26.9 | 26.49 | 26.47 |
| 1936 | 8.55 | 26.66 | 26.27 | 26.37 |
| 1937 | 8.7 | 26.96 | 26.14 | 26.44 |
| 1938 | 8.86 | 26.82 | 26.55 | 26.63 |
| 1939 | 8.76 | 26.39 | 26.26 | 26.08 |
| 1940 | 8.76 | 26.81 | 26.5 | 26.45 |
| 1941 | 8.77 | 27.36 | 27.08 | 26.99 |
| 1942 | 8.73 | 26.95 | 26.87 | 26.76 |
| 1943 | 8.76 | 26.53 | 26.33 | 26.28 |
| 1944 | 8.85 | 27.07 | 26.4 | 26.48 |
| 1945 | 8.58 | 27.07 | 25.93 | 26.34 |
| 1946 | 8.68 | 26.72 | 26.12 | 26.26 |
| 1947 | 8.8 | 26.98 | 26.51 | 26.6 |
| 1948 | 8.75 | 26.61 | 25.85 | 26.04 |
| 1949 | 8.59 | 26.98 | 26.53 | 26.45 |
| 1950 | 8.37 | 26.57 | 25.91 | 26.21 |
| 1951 | 8.63 | 26.89 | 26.02 | 26.2 |
| 1952 | 8.64 | 26.66 | 25.92 | 26.09 |
| 1953 | 8.87 | 26.66 | 25.93 | 26.23 |
| 1954 | 8.56 | 26.28 | 26.07 | 25.95 |
| 1955 | 8.63 | 26.42 | 25.77 | 25.91 |
| 1956 | 8.28 | 26.31 | 26.02 | 25.93 |
| 1957 | 8.73 | 26.65 | 25.9 | 26.12 |
| 1958 | 8.77 | 26.68 | 26.44 | 26.37 |
| 1959 | 8.73 | 26.72 | 26.04 | 26.31 |
| 1960 | 8.58 | 26.68 | 26.24 | 26.19 |
| 1961 | 8.8 | 26.46 | 25.47 | 25.93 |
| 1962 | 8.75 | 26.55 | 26.12 | 26.05 |
| 1963 | 8.86 | 27.01 | 26.61 | 26.49 |
| 1964 | 8.41 | 26.48 | 26.05 | 26.08 |
| 1965 | 8.53 | 26.53 | 26 | 26.19 |
| 1966 | 8.6 | 26.84 | 26 | 26.22 |
| 1967 | 8.7 | 26.43 | 25.94 | 26.01 |
| 1968 | 8.52 | 26.67 | 26.2 | 26.29 |
| 1969 | 8.6 | 26.89 | 26.78 | 26.47 |
| 1970 | 8.7 | 26.92 | 26.21 | 26.41 |
| 1971 | 8.6 | 26.56 | 26.16 | 26.27 |
| 1972 | 8.5 | 26.91 | 26.53 | 26.09 |
| 1973 | 8.95 | 27.2 | 27.05 | 26.78 |
| 1974 | 8.47 | 26.44 | 25.97 | 26.03 |
| 1975 | 8.74 | 26.27 | 25.89 | 25.89 |
| 1976 | 8.35 | 26.37 | 26.31 | 26.17 |
| 1977 | 8.85 | 27.01 | 26.04 | 26.43 |
| 1978 | 8.69 | 26.73 | 26.13 | 26.14 |
| 1979 | 8.73 | 26.99 | 26.44 | 26.46 |
| 1980 | 8.98 | 26.85 | 26.37 | 26.41 |
| 1981 | 9.17 | 26.79 | 26.15 | 26.2 |
| 1982 | 8.64 | 26.66 | 26.37 | 26.28 |
| 1983 | 9.03 | 26.99 | 26.3 | 26.49 |
| 1984 | 8.69 | 26.98 | 26.53 | 26.41 |
| 1985 | 8.66 | 26.74 | 26.38 | 26.32 |
| 1986 | 8.83 | 26.65 | 26.6 | 26.38 |
| 1987 | 8.99 | 27.51 | 27.01 | 27.06 |
| 1988 | 9.2 | 27.04 | 26.33 | 26.49 |
| 1989 | 8.92 | 26.71 | 25.63 | 25.82 |
| 1990 | 9.23 | 27.06 | 26.85 | 26.74 |
| 1991 | 9.18 | 26.88 | 26.43 | 26.39 |
| 1992 | 8.84 | 26.73 | 25.96 | 26.08 |
| 1993 | 8.87 | 26.9 | 26.51 | 26.44 |
| 1994 | 9.04 | 26.84 | 26.13 | 26.18 |
| 1995 | 9.35 | 27.07 | 26.56 | 26.62 |
| 1996 | 9.04 | 26.92 | 26.64 | 26.58 |
| 1997 | 9.2 | 26.91 | 26.66 | 26.48 |
| 1998 | 9.52 | 27.53 | 26.93 | 27.04 |
| 1999 | 9.29 | 27.03 | 26.85 | 26.85 |
| 2000 | 9.2 | 27.02 | 26.38 | 26.32 |
| 2001 | 9.41 | 26.92 | 26.47 | 26.58 |
| 2002 | 9.57 | 27.13 | 26.96 | 26.95 |
| 2003 | 9.53 | 27.37 | 26.83 | 26.84 |
| 2004 | 9.32 | 27.32 | 26.99 | 26.95 |
| 2005 | 9.7 | 27.39 | 27.27 | 27.09 |
| 2006 | 9.53 | 27.53 | 27.26 | 27.24 |
| 2007 | 9.73 | 27.46 | 27.25 | 27.2 |
| 2008 | 9.43 | 27.3 | 26.71 | 26.75 |
| 2009 | 9.51 | 27.53 | 27.48 | 27.19 |
| 2010 | 9.7 | 27.79 | 27.64 | 27.35 |
| 2011 | 9.52 | 27.35 | 27.2 | 27.09 |
| 2012 | 9.51 | 27.15 | 26.87 | 26.93 |
| 2013 | 9.61 | 27.36 | 27.76 | 27.25 |

3O Years MA

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| year | MA(30yr\_global) | MA(30yr\_Lagos) | MA(30yr\_Kano) | MA(30yr\_Abuja) |
| 1856 | 8.087666667 | 25.872 | 25.451 | 25.53933333 |
| 1857 | 8.094666667 | 25.856 | 25.423 | 25.49033333 |
| 1858 | 8.112333333 | 25.884 | 25.43933333 | 25.53233333 |
| 1859 | 8.115 | 25.87966667 | 25.42266667 | 25.51766667 |
| 1860 | 8.12 | 25.884 | 25.424 | 25.535 |
| 1861 | 8.138 | 25.89766667 | 25.44433333 | 25.54933333 |
| 1862 | 8.161 | 25.917 | 25.465 | 25.55866667 |
| 1873 | 8.185666667 | 25.92333333 | 25.47933333 | 25.51133333 |
| 1874 | 8.181333333 | 25.89733333 | 25.44333333 | 25.50233333 |
| 1875 | 8.17 | 25.87733333 | 25.42766667 | 25.478 |
| 1876 | 8.182333333 | 25.88866667 | 25.413 | 25.47733333 |
| 1877 | 8.192333333 | 25.90166667 | 25.418 | 25.47433333 |
| 1878 | 8.172666667 | 25.88866667 | 25.38833333 | 25.45366667 |
| 1879 | 8.151333333 | 25.885 | 25.371 | 25.442 |
| 1880 | 8.151666667 | 25.89866667 | 25.385 | 25.45866667 |
| 1881 | 8.155 | 25.89833333 | 25.38733333 | 25.46466667 |
| 1882 | 8.152 | 25.876 | 25.377 | 25.45133333 |
| 1883 | 8.153333333 | 25.88133333 | 25.371 | 25.45366667 |
| 1884 | 8.164 | 25.889 | 25.386 | 25.464 |
| 1885 | 8.191333333 | 25.89966667 | 25.40766667 | 25.474 |
| 1886 | 8.213666667 | 25.92633333 | 25.533 | 25.51666667 |
| 1887 | 8.223 | 25.95066667 | 25.551 | 25.53466667 |
| 1888 | 8.226666667 | 26.013 | 25.607 | 25.59533333 |
| 1889 | 8.228 | 26.046 | 25.63566667 | 25.62133333 |
| 1890 | 8.23 | 26.09133333 | 25.67033333 | 25.66433333 |
| 1891 | 8.243 | 26.15333333 | 25.70366667 | 25.713 |
| 1892 | 8.261333333 | 26.20266667 | 25.73633333 | 25.756 |
| 1893 | 8.272666667 | 26.244 | 25.769 | 25.79433333 |
| 1894 | 8.284666667 | 26.276 | 25.795 | 25.82433333 |
| 1895 | 8.296333333 | 26.32133333 | 25.82566667 | 25.85866667 |
| 1896 | 8.309 | 26.34533333 | 25.834 | 25.86566667 |
| 1897 | 8.326333333 | 26.382 | 25.86866667 | 25.89966667 |
| 1898 | 8.334 | 26.40166667 | 25.88633333 | 25.914 |
| 1899 | 8.349 | 26.43366667 | 25.92333333 | 25.944 |
| 1900 | 8.343666667 | 26.43933333 | 25.932 | 25.95266667 |
| 1901 | 8.348 | 26.45333333 | 25.95333333 | 25.97033333 |
| 1902 | 8.354 | 26.464 | 25.99333333 | 26.003 |
| 1903 | 8.367666667 | 26.47633333 | 26.01333333 | 26.02733333 |
| 1904 | 8.371666667 | 26.518 | 26.05166667 | 26.06066667 |
| 1905 | 8.389666667 | 26.565 | 26.088 | 26.102 |
| 1906 | 8.399333333 | 26.58966667 | 26.13866667 | 26.13766667 |
| 1907 | 8.405 | 26.60466667 | 26.16333333 | 26.16233333 |
| 1908 | 8.43 | 26.638 | 26.199 | 26.19866667 |
| 1909 | 8.452333333 | 26.66033333 | 26.23033333 | 26.232 |
| 1910 | 8.471666667 | 26.67066667 | 26.24233333 | 26.23933333 |
| 1911 | 8.489666667 | 26.69333333 | 26.271 | 26.26166667 |
| 1912 | 8.509333333 | 26.748 | 26.317 | 26.31033333 |
| 1913 | 8.528 | 26.774 | 26.368 | 26.34733333 |
| 1914 | 8.543333333 | 26.77 | 26.36866667 | 26.34966667 |
| 1915 | 8.552 | 26.78066667 | 26.35833333 | 26.35333333 |
| 1916 | 8.551666667 | 26.78933333 | 26.344 | 26.36066667 |
| 1917 | 8.566666667 | 26.79333333 | 26.354 | 26.372 |
| 1918 | 8.592666667 | 26.794 | 26.35 | 26.37066667 |
| 1919 | 8.613333333 | 26.80066667 | 26.34233333 | 26.37433333 |
| 1920 | 8.620333333 | 26.81 | 26.34833333 | 26.37266667 |
| 1921 | 8.620666667 | 26.805 | 26.36166667 | 26.38166667 |
| 1922 | 8.622666667 | 26.809 | 26.361 | 26.378 |
| 1923 | 8.630333333 | 26.80666667 | 26.348 | 26.369 |
| 1924 | 8.645333333 | 26.80766667 | 26.34266667 | 26.373 |
| 1925 | 8.647 | 26.78533333 | 26.33333333 | 26.35766667 |
| 1926 | 8.650333333 | 26.778 | 26.32533333 | 26.36166667 |
| 1927 | 8.635333333 | 26.756 | 26.30866667 | 26.34333333 |
| 1928 | 8.642333333 | 26.74833333 | 26.29033333 | 26.33533333 |
| 1929 | 8.647 | 26.746 | 26.28533333 | 26.33666667 |
| 1930 | 8.663333333 | 26.754 | 26.284 | 26.344 |
| 1931 | 8.661666667 | 26.74866667 | 26.27333333 | 26.33433333 |
| 1932 | 8.664333333 | 26.73566667 | 26.22 | 26.30466667 |
| 1933 | 8.665666667 | 26.73866667 | 26.21566667 | 26.298 |
| 1934 | 8.683 | 26.74133333 | 26.21533333 | 26.29766667 |
| 1935 | 8.675666667 | 26.72766667 | 26.21133333 | 26.29 |
| 1936 | 8.676 | 26.71533333 | 26.195 | 26.28066667 |
| 1937 | 8.677666667 | 26.72133333 | 26.186 | 26.27566667 |
| 1938 | 8.677666667 | 26.70366667 | 26.17933333 | 26.26133333 |
| 1939 | 8.666333333 | 26.69866667 | 26.16766667 | 26.25 |
| 1940 | 8.661 | 26.71533333 | 26.185 | 26.263 |
| 1941 | 8.659 | 26.719 | 26.17533333 | 26.26166667 |
| 1942 | 8.653333333 | 26.69233333 | 26.14466667 | 26.23766667 |
| 1943 | 8.645666667 | 26.691 | 26.13333333 | 26.21533333 |
| 1944 | 8.652 | 26.71333333 | 26.15733333 | 26.232 |
| 1945 | 8.639333333 | 26.69233333 | 26.143 | 26.217 |
| 1946 | 8.644666667 | 26.66566667 | 26.14166667 | 26.202 |
| 1947 | 8.633666667 | 26.654 | 26.148 | 26.199 |
| 1948 | 8.635333333 | 26.655 | 26.13233333 | 26.19333333 |
| 1949 | 8.633333333 | 26.659 | 26.14166667 | 26.19666667 |
| 1950 | 8.638 | 26.65933333 | 26.13866667 | 26.197 |
| 1951 | 8.658333333 | 26.66866667 | 26.154 | 26.20366667 |
| 1952 | 8.676333333 | 26.66533333 | 26.15833333 | 26.20366667 |
| 1953 | 8.676333333 | 26.66533333 | 26.17333333 | 26.21 |
| 1954 | 8.681666667 | 26.67633333 | 26.18566667 | 26.21866667 |
| 1955 | 8.686 | 26.69966667 | 26.201 | 26.234 |
| 1956 | 8.687 | 26.71033333 | 26.22133333 | 26.24766667 |
| 1957 | 8.705333333 | 26.72166667 | 26.24066667 | 26.26266667 |
| 1958 | 8.714 | 26.75033333 | 26.27766667 | 26.294 |
| 1959 | 8.728333333 | 26.76233333 | 26.274 | 26.298 |
| 1960 | 8.734666667 | 26.762 | 26.26033333 | 26.28166667 |
| 1961 | 8.756333333 | 26.77466667 | 26.28066667 | 26.3 |
| 1962 | 8.769 | 26.78866667 | 26.31266667 | 26.31533333 |
| 1963 | 8.772 | 26.79466667 | 26.30733333 | 26.31633333 |
| 1964 | 8.772333333 | 26.791 | 26.304 | 26.31466667 |
| 1965 | 8.793333333 | 26.803 | 26.30666667 | 26.318 |
| 1966 | 8.820666667 | 26.821 | 26.32533333 | 26.33233333 |
| 1967 | 8.835333333 | 26.82366667 | 26.34666667 | 26.34433333 |
| 1968 | 8.852 | 26.83966667 | 26.37066667 | 26.36 |
| 1969 | 8.885333333 | 26.86833333 | 26.395 | 26.385 |
| 1970 | 8.908333333 | 26.873 | 26.39733333 | 26.39766667 |
| 1971 | 8.925 | 26.87633333 | 26.403 | 26.39466667 |
| 1972 | 8.952 | 26.88833333 | 26.41333333 | 26.405 |
| 1973 | 8.987666667 | 26.89566667 | 26.42766667 | 26.43366667 |
| 1974 | 9.007 | 26.90133333 | 26.42033333 | 26.43566667 |
| 1975 | 9.035333333 | 26.93066667 | 26.45433333 | 26.46633333 |
| 1976 | 9.067333333 | 26.968 | 26.50033333 | 26.50633333 |
| 1977 | 9.106666667 | 27.00666667 | 26.532 | 26.542 |
| 1978 | 9.136 | 27.02166667 | 26.57233333 | 26.56766667 |
| 1979 | 9.160666667 | 27.04066667 | 26.59166667 | 26.588 |
| 1980 | 9.186666667 | 27.05866667 | 26.62633333 | 26.61233333 |
| 1981 | 9.210666667 | 27.09 | 26.66866667 | 26.64366667 |
| 1982 | 9.222333333 | 27.10866667 | 26.70366667 | 26.67333333 |
| 1983 | 9.251333333 | 27.125 | 26.72033333 | 26.695 |
| 1984 | 9.270666667 | 27.13733333 | 26.769 | 26.72033333 |
| 1985 | 9.290689655 | 27.14275862 | 26.77724138 | 26.73103448 |
| 1986 | 9.313214286 | 27.15714286 | 26.79142857 | 26.74571429 |
| 1987 | 9.331111111 | 27.17592593 | 26.79851852 | 26.75925926 |
| 1988 | 9.344230769 | 27.16307692 | 26.79038462 | 26.74769231 |
| 1989 | 9.35 | 27.168 | 26.8088 | 26.758 |
| 1990 | 9.367916667 | 27.18708333 | 26.85791667 | 26.79708333 |
| 1991 | 9.373913043 | 27.1926087 | 26.85826087 | 26.79956522 |
| 1992 | 9.382727273 | 27.20681818 | 26.87772727 | 26.81818182 |
| 1993 | 9.408571429 | 27.22952381 | 26.92142857 | 26.85333333 |
| 1994 | 9.4355 | 27.246 | 26.942 | 26.874 |
| 1995 | 9.456315789 | 27.26736842 | 26.98473684 | 26.91052632 |
| 1996 | 9.462222222 | 27.27833333 | 27.00833333 | 26.92666667 |
| 1997 | 9.487058824 | 27.29941176 | 27.03 | 26.94705882 |
| 1998 | 9.505 | 27.32375 | 27.053125 | 26.97625 |
| 1999 | 9.504 | 27.31 | 27.06133333 | 26.972 |
| 2000 | 9.519285714 | 27.33 | 27.07642857 | 26.98071429 |
| 2001 | 9.543846154 | 27.35384615 | 27.13 | 27.03153846 |
| 2002 | 9.555 | 27.39 | 27.185 | 27.06916667 |
| 2003 | 9.553636364 | 27.41363636 | 27.20545455 | 27.08 |
| 2004 | 9.556 | 27.418 | 27.243 | 27.104 |
| 2005 | 9.582222222 | 27.42888889 | 27.27111111 | 27.12111111 |
| 2006 | 9.5675 | 27.43375 | 27.27125 | 27.125 |
| 2007 | 9.572857143 | 27.42 | 27.27285714 | 27.10857143 |
| 2008 | 9.546666667 | 27.41333333 | 27.27666667 | 27.09333333 |
| 2009 | 9.57 | 27.436 | 27.39 | 27.162 |
| 2010 | 9.585 | 27.4125 | 27.3675 | 27.155 |
| 2011 | 9.546666667 | 27.28666667 | 27.27666667 | 27.09 |
| 2012 | 9.56 | 27.255 | 27.315 | 27.09 |
| 2013 | 9.61 | 27.36 | 27.76 | 27.25 |

60years MA

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| year | MA(60yr\_global) | MA(60yr\_Lagos) | MA(60yr\_Kano) | MA(60yr\_Abuja) |
| 1856 | 8.198333333 | 26.10866667 | 25.6425 | 25.7025 |
| 1857 | 8.2105 | 26.119 | 25.64583333 | 25.695 |
| 1858 | 8.223166667 | 26.14283333 | 25.66283333 | 25.72316667 |
| 1859 | 8.232 | 26.15666667 | 25.673 | 25.73083333 |
| 1860 | 8.231833333 | 26.16166667 | 25.678 | 25.74383333 |
| 1861 | 8.243 | 26.1755 | 25.69883333 | 25.75983333 |
| 1862 | 8.2575 | 26.1905 | 25.72916667 | 25.78083333 |
| 1873 | 8.276666667 | 26.19983333 | 25.74633333 | 25.76933333 |
| 1874 | 8.2765 | 26.20766667 | 25.7475 | 25.7815 |
| 1875 | 8.279833333 | 26.22116667 | 25.75783333 | 25.79 |
| 1876 | 8.290833333 | 26.23916667 | 25.77583333 | 25.8075 |
| 1877 | 8.298666667 | 26.25316667 | 25.79066667 | 25.81833333 |
| 1878 | 8.301333333 | 26.26333333 | 25.79366667 | 25.82616667 |
| 1879 | 8.301833333 | 26.27266667 | 25.80066667 | 25.837 |
| 1880 | 8.311666667 | 26.28466667 | 25.81366667 | 25.849 |
| 1881 | 8.322333333 | 26.29583333 | 25.82916667 | 25.86316667 |
| 1882 | 8.330666667 | 26.312 | 25.847 | 25.88083333 |
| 1883 | 8.340666667 | 26.32766667 | 25.8695 | 25.9005 |
| 1884 | 8.353666667 | 26.3295 | 25.87733333 | 25.90683333 |
| 1885 | 8.371666667 | 26.34016667 | 25.883 | 25.91366667 |
| 1886 | 8.382666667 | 26.35783333 | 25.9385 | 25.93866667 |
| 1887 | 8.394833333 | 26.372 | 25.9525 | 25.95333333 |
| 1888 | 8.409666667 | 26.4035 | 25.9785 | 25.983 |
| 1889 | 8.420666667 | 26.42333333 | 25.989 | 25.99783333 |
| 1890 | 8.425166667 | 26.45066667 | 26.00933333 | 26.0185 |
| 1891 | 8.431833333 | 26.47916667 | 26.03266667 | 26.04733333 |
| 1892 | 8.442 | 26.50583333 | 26.04866667 | 26.067 |
| 1893 | 8.4515 | 26.52533333 | 26.0585 | 26.08166667 |
| 1894 | 8.465 | 26.54183333 | 26.06883333 | 26.09866667 |
| 1895 | 8.471666667 | 26.55333333 | 26.0795 | 26.10816667 |
| 1896 | 8.479666667 | 26.56166667 | 26.07966667 | 26.11366667 |
| 1897 | 8.480833333 | 26.569 | 26.08866667 | 26.1215 |
| 1898 | 8.488166667 | 26.575 | 26.08833333 | 26.12466667 |
| 1899 | 8.498 | 26.58983333 | 26.10433333 | 26.14033333 |
| 1900 | 8.5035 | 26.59666667 | 26.108 | 26.14833333 |
| 1901 | 8.504833333 | 26.601 | 26.11333333 | 26.15233333 |
| 1902 | 8.509166667 | 26.59983333 | 26.10666667 | 26.15383333 |
| 1903 | 8.516666667 | 26.6075 | 26.1145 | 26.16266667 |
| 1904 | 8.527333333 | 26.62966667 | 26.1335 | 26.17916667 |
| 1905 | 8.532666667 | 26.64633333 | 26.14966667 | 26.196 |
| 1906 | 8.537666667 | 26.6525 | 26.16683333 | 26.20916667 |
| 1907 | 8.541333333 | 26.663 | 26.17466667 | 26.219 |
| 1908 | 8.553833333 | 26.67083333 | 26.18916667 | 26.23 |
| 1909 | 8.559333333 | 26.6795 | 26.199 | 26.241 |
| 1910 | 8.566333333 | 26.693 | 26.21366667 | 26.25116667 |
| 1911 | 8.574333333 | 26.70616667 | 26.22316667 | 26.26166667 |
| 1912 | 8.581333333 | 26.72016667 | 26.23083333 | 26.274 |
| 1913 | 8.586833333 | 26.7325 | 26.25066667 | 26.28133333 |
| 1914 | 8.597666667 | 26.74166667 | 26.263 | 26.29083333 |
| 1915 | 8.595666667 | 26.7365 | 26.25066667 | 26.28516667 |
| 1916 | 8.598166667 | 26.7275 | 26.24283333 | 26.28133333 |
| 1917 | 8.600166667 | 26.72366667 | 26.251 | 26.2855 |
| 1918 | 8.614 | 26.7245 | 26.24116667 | 26.282 |
| 1919 | 8.623333333 | 26.72983333 | 26.242 | 26.2855 |
| 1920 | 8.629166667 | 26.73466667 | 26.2435 | 26.28483333 |
| 1921 | 8.6395 | 26.73683333 | 26.25783333 | 26.29266667 |
| 1922 | 8.6495 | 26.73716667 | 26.25966667 | 26.29083333 |
| 1923 | 8.653333333 | 26.736 | 26.26066667 | 26.2895 |
| 1924 | 8.6635 | 26.742 | 26.26416667 | 26.29583333 |
| 1925 | 8.6665 | 26.7425 | 26.26716667 | 26.29583333 |
| 1926 | 8.668666667 | 26.74416667 | 26.27333333 | 26.30466667 |
| 1927 | 8.670333333 | 26.73883333 | 26.27466667 | 26.303 |
| 1928 | 8.678166667 | 26.74933333 | 26.284 | 26.31466667 |
| 1929 | 8.687666667 | 26.75416667 | 26.27966667 | 26.31733333 |
| 1930 | 8.699 | 26.758 | 26.27216667 | 26.31283333 |
| 1931 | 8.709 | 26.76166667 | 26.277 | 26.31716667 |
| 1932 | 8.716666667 | 26.76216667 | 26.26633333 | 26.31 |
| 1933 | 8.718833333 | 26.76666667 | 26.2615 | 26.30716667 |
| 1934 | 8.727666667 | 26.76616667 | 26.25966667 | 26.30616667 |
| 1935 | 8.7345 | 26.76533333 | 26.259 | 26.304 |
| 1936 | 8.748333333 | 26.76816667 | 26.26016667 | 26.3065 |
| 1937 | 8.7565 | 26.7725 | 26.26633333 | 26.31 |
| 1938 | 8.764833333 | 26.77166667 | 26.275 | 26.31066667 |
| 1939 | 8.775833333 | 26.7835 | 26.28133333 | 26.3175 |
| 1940 | 8.784666667 | 26.79416667 | 26.29116667 | 26.33033333 |
| 1941 | 8.792 | 26.79766667 | 26.28916667 | 26.32816667 |
| 1942 | 8.802666667 | 26.79033333 | 26.279 | 26.32133333 |
| 1943 | 8.816666667 | 26.79333333 | 26.2805 | 26.3245 |
| 1944 | 8.8295 | 26.80733333 | 26.28883333 | 26.33383333 |
| 1945 | 8.837333333 | 26.8115 | 26.29866667 | 26.34166667 |
| 1946 | 8.856 | 26.81683333 | 26.321 | 26.35416667 |
| 1947 | 8.870166667 | 26.83033333 | 26.34 | 26.3705 |
| 1948 | 8.885666667 | 26.83833333 | 26.35233333 | 26.3805 |
| 1949 | 8.897 | 26.84983333 | 26.36666667 | 26.39233333 |
| 1950 | 8.912333333 | 26.859 | 26.3825 | 26.40466667 |
| 1951 | 8.9345 | 26.87933333 | 26.41133333 | 26.42366667 |
| 1952 | 8.949333333 | 26.887 | 26.431 | 26.4385 |
| 1953 | 8.963833333 | 26.89516667 | 26.44683333 | 26.4525 |
| 1954 | 8.976166667 | 26.90683333 | 26.47733333 | 26.4695 |
| 1955 | 8.983220339 | 26.91745763 | 26.48423729 | 26.47830508 |
| 1956 | 8.989310345 | 26.92603448 | 26.49655172 | 26.48810345 |
| 1957 | 9.001754386 | 26.93684211 | 26.50491228 | 26.49789474 |
| 1958 | 9.006607143 | 26.94196429 | 26.51571429 | 26.50464286 |
| 1959 | 9.010909091 | 26.94672727 | 26.51709091 | 26.50709091 |
| 1960 | 9.016111111 | 26.95092593 | 26.52592593 | 26.51074074 |
| 1961 | 9.024339623 | 26.95603774 | 26.53132075 | 26.51679245 |
| 1962 | 9.028653846 | 26.96557692 | 26.55173077 | 26.52807692 |
| 1963 | 9.034117647 | 26.97372549 | 26.56019608 | 26.53745098 |
| 1964 | 9.0376 | 26.973 | 26.5592 | 26.5384 |
| 1965 | 9.050408163 | 26.98306122 | 26.56959184 | 26.5477551 |
| 1966 | 9.06125 | 26.9925 | 26.58145833 | 26.55520833 |
| 1967 | 9.07106383 | 26.99574468 | 26.59382979 | 26.56234043 |
| 1968 | 9.079130435 | 27.00804348 | 26.60804348 | 26.57434783 |
| 1969 | 9.091555556 | 27.01555556 | 26.61711111 | 26.58066667 |
| 1970 | 9.102727273 | 27.01840909 | 26.61340909 | 26.58318182 |
| 1971 | 9.112093023 | 27.02069767 | 26.6227907 | 26.5872093 |
| 1972 | 9.124285714 | 27.03166667 | 26.63380952 | 26.5947619 |
| 1973 | 9.139512195 | 27.03463415 | 26.63634146 | 26.60707317 |
| 1974 | 9.14425 | 27.0305 | 26.626 | 26.60275 |
| 1975 | 9.161538462 | 27.04564103 | 26.64282051 | 26.6174359 |
| 1976 | 9.172631579 | 27.06605263 | 26.66263158 | 26.63657895 |
| 1977 | 9.194864865 | 27.08486486 | 26.67216216 | 26.64918919 |
| 1978 | 9.204444444 | 27.08694444 | 26.68972222 | 26.65527778 |
| 1979 | 9.219142857 | 27.09714286 | 26.70571429 | 26.67 |
| 1980 | 9.233529412 | 27.10029412 | 26.71352941 | 26.67617647 |
| 1981 | 9.241212121 | 27.10787879 | 26.72393939 | 26.68424242 |
| 1982 | 9.2434375 | 27.1178125 | 26.741875 | 26.699375 |
| 1983 | 9.262903226 | 27.13258065 | 26.75387097 | 26.71290323 |
| 1984 | 9.270666667 | 27.13733333 | 26.769 | 26.72033333 |
| 1985 | 9.290689655 | 27.14275862 | 26.77724138 | 26.73103448 |
| 1986 | 9.313214286 | 27.15714286 | 26.79142857 | 26.74571429 |
| 1987 | 9.331111111 | 27.17592593 | 26.79851852 | 26.75925926 |
| 1988 | 9.344230769 | 27.16307692 | 26.79038462 | 26.74769231 |
| 1989 | 9.35 | 27.168 | 26.8088 | 26.758 |
| 1990 | 9.367916667 | 27.18708333 | 26.85791667 | 26.79708333 |
| 1991 | 9.373913043 | 27.1926087 | 26.85826087 | 26.79956522 |
| 1992 | 9.382727273 | 27.20681818 | 26.87772727 | 26.81818182 |
| 1993 | 9.408571429 | 27.22952381 | 26.92142857 | 26.85333333 |
| 1994 | 9.4355 | 27.246 | 26.942 | 26.874 |
| 1995 | 9.456315789 | 27.26736842 | 26.98473684 | 26.91052632 |
| 1996 | 9.462222222 | 27.27833333 | 27.00833333 | 26.92666667 |
| 1997 | 9.487058824 | 27.29941176 | 27.03 | 26.94705882 |
| 1998 | 9.505 | 27.32375 | 27.053125 | 26.97625 |
| 1999 | 9.504 | 27.31 | 27.06133333 | 26.972 |
| 2000 | 9.519285714 | 27.33 | 27.07642857 | 26.98071429 |
| 2001 | 9.543846154 | 27.35384615 | 27.13 | 27.03153846 |
| 2002 | 9.555 | 27.39 | 27.185 | 27.06916667 |
| 2003 | 9.553636364 | 27.41363636 | 27.20545455 | 27.08 |
| 2004 | 9.556 | 27.418 | 27.243 | 27.104 |
| 2005 | 9.582222222 | 27.42888889 | 27.27111111 | 27.12111111 |
| 2006 | 9.5675 | 27.43375 | 27.27125 | 27.125 |
| 2007 | 9.572857143 | 27.42 | 27.27285714 | 27.10857143 |
| 2008 | 9.546666667 | 27.41333333 | 27.27666667 | 27.09333333 |
| 2009 | 9.57 | 27.436 | 27.39 | 27.162 |
| 2010 | 9.585 | 27.4125 | 27.3675 | 27.155 |
| 2011 | 9.546666667 | 27.28666667 | 27.27666667 | 27.09 |
| 2012 | 9.56 | 27.255 | 27.315 | 27.09 |
| 2013 | 9.61 | 27.36 | 27.76 | 27.25 |

120 Years MA

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| year | MA(120yr\_global) | MA(120yr\_Lagos) | MA(120yr\_Kano) | MA(120yr\_Abuja) |
| 1856 | 8.4335 | 26.42641667 | 25.95791667 | 26.00358333 |
| 1857 | 8.440416667 | 26.42891667 | 25.96025 | 25.999 |
| 1858 | 8.450666667 | 26.44608333 | 25.97341667 | 26.01891667 |
| 1859 | 8.459833333 | 26.45541667 | 25.97633333 | 26.02408333 |
| 1860 | 8.465416667 | 26.45983333 | 25.97508333 | 26.02833333 |
| 1861 | 8.476 | 26.46858333 | 25.98791667 | 26.0385 |
| 1862 | 8.487083333 | 26.47633333 | 25.99775 | 26.04541667 |
| 1873 | 8.49775 | 26.48325 | 26.00391667 | 26.03825 |
| 1874 | 8.502083333 | 26.48691667 | 26.00358333 | 26.04383333 |
| 1875 | 8.507166667 | 26.49325 | 26.00841667 | 26.047 |
| 1876 | 8.519583333 | 26.50366667 | 26.018 | 26.057 |
| 1877 | 8.527583333 | 26.51283333 | 26.0285 | 26.06416667 |
| 1878 | 8.533083333 | 26.5175 | 26.03433333 | 26.06841667 |
| 1879 | 8.538833333 | 26.52808333 | 26.041 | 26.07725 |
| 1880 | 8.548166667 | 26.53941667 | 26.05241667 | 26.08966667 |
| 1881 | 8.557166667 | 26.54675 | 26.05916667 | 26.09566667 |
| 1882 | 8.566666667 | 26.55116667 | 26.063 | 26.10108333 |
| 1883 | 8.578666667 | 26.5605 | 26.075 | 26.1125 |
| 1884 | 8.591583333 | 26.56841667 | 26.08308333 | 26.12033333 |
| 1885 | 8.6045 | 26.57583333 | 26.09083333 | 26.12766667 |
| 1886 | 8.619333333 | 26.58733333 | 26.12975 | 26.14641667 |
| 1887 | 8.6325 | 26.60116667 | 26.14625 | 26.16191667 |
| 1888 | 8.647666667 | 26.62091667 | 26.16541667 | 26.18175 |
| 1889 | 8.658833333 | 26.63658333 | 26.17783333 | 26.19508333 |
| 1890 | 8.66875 | 26.65483333 | 26.19591667 | 26.21158333 |
| 1891 | 8.683166667 | 26.67925 | 26.222 | 26.2355 |
| 1892 | 8.695666667 | 26.69641667 | 26.23983333 | 26.25275 |
| 1893 | 8.707666667 | 26.71025 | 26.25266667 | 26.26708333 |
| 1894 | 8.720583333 | 26.72433333 | 26.27308333 | 26.28408333 |
| 1895 | 8.725294118 | 26.73386555 | 26.28016807 | 26.29168067 |
| 1896 | 8.730169492 | 26.74076271 | 26.28457627 | 26.29771186 |
| 1897 | 8.734615385 | 26.74820513 | 26.29145299 | 26.30487179 |
| 1898 | 8.738448276 | 26.75215517 | 26.29465517 | 26.30810345 |
| 1899 | 8.743304348 | 26.76052174 | 26.30173913 | 26.31573913 |
| 1900 | 8.746315789 | 26.76447368 | 26.30596491 | 26.32 |
| 1901 | 8.748495575 | 26.76752212 | 26.30938053 | 26.32327434 |
| 1902 | 8.750357143 | 26.76964286 | 26.31330357 | 26.32758929 |
| 1903 | 8.754414414 | 26.77576577 | 26.31927928 | 26.33486486 |
| 1904 | 8.759272727 | 26.78572727 | 26.327 | 26.34245455 |
| 1905 | 8.765412844 | 26.79770642 | 26.33844037 | 26.35412844 |
| 1906 | 8.77037037 | 26.80361111 | 26.35111111 | 26.36296296 |
| 1907 | 8.774018692 | 26.80915888 | 26.35878505 | 26.36981308 |
| 1908 | 8.781792453 | 26.81716981 | 26.3709434 | 26.37943396 |
| 1909 | 8.787428571 | 26.82352381 | 26.37819048 | 26.38657143 |
| 1910 | 8.793269231 | 26.83067308 | 26.38278846 | 26.39163462 |
| 1911 | 8.798834951 | 26.83747573 | 26.39 | 26.39757282 |
| 1912 | 8.804901961 | 26.84843137 | 26.39676471 | 26.40607843 |
| 1913 | 8.811188119 | 26.85514851 | 26.40722772 | 26.41356436 |
| 1914 | 8.8163 | 26.8572 | 26.4082 | 26.4156 |
| 1915 | 8.818585859 | 26.85828283 | 26.40515152 | 26.41606061 |
| 1916 | 8.820918367 | 26.85877551 | 26.40561224 | 26.41908163 |
| 1917 | 8.827010309 | 26.8614433 | 26.41164948 | 26.4242268 |
| 1918 | 8.835416667 | 26.86041667 | 26.409375 | 26.42197917 |
| 1919 | 8.842842105 | 26.86515789 | 26.41284211 | 26.42715789 |
| 1920 | 8.847765957 | 26.86691489 | 26.41351064 | 26.42638298 |
| 1921 | 8.853010753 | 26.86849462 | 26.42322581 | 26.4316129 |
| 1922 | 8.856086957 | 26.86956522 | 26.4273913 | 26.43293478 |
| 1923 | 8.860989011 | 26.8710989 | 26.42868132 | 26.43373626 |
| 1924 | 8.865888889 | 26.87377778 | 26.43244444 | 26.43733333 |
| 1925 | 8.86988764 | 26.87292135 | 26.43337079 | 26.43764045 |
| 1926 | 8.87375 | 26.87556818 | 26.43818182 | 26.445 |
| 1927 | 8.875402299 | 26.87448276 | 26.43724138 | 26.4445977 |
| 1928 | 8.879534884 | 26.8744186 | 26.43709302 | 26.4455814 |
| 1929 | 8.882470588 | 26.87588235 | 26.43529412 | 26.44694118 |
| 1930 | 8.890119048 | 26.88059524 | 26.43952381 | 26.45119048 |
| 1931 | 8.893253012 | 26.88108434 | 26.43807229 | 26.45084337 |
| 1932 | 8.895365854 | 26.88146341 | 26.43036585 | 26.44634146 |
| 1933 | 8.897654321 | 26.88666667 | 26.43259259 | 26.44876543 |
| 1934 | 8.904625 | 26.886125 | 26.43025 | 26.448125 |
| 1935 | 8.908101266 | 26.88607595 | 26.4335443 | 26.44987342 |
| 1936 | 8.913076923 | 26.88589744 | 26.43282051 | 26.44961538 |
| 1937 | 8.917792208 | 26.88883117 | 26.43493506 | 26.45064935 |
| 1938 | 8.920657895 | 26.88789474 | 26.43881579 | 26.45078947 |
| 1939 | 8.921466667 | 26.8888 | 26.43733333 | 26.4484 |
| 1940 | 8.923648649 | 26.89554054 | 26.43972973 | 26.45337838 |
| 1941 | 8.925890411 | 26.89671233 | 26.43890411 | 26.45342466 |
| 1942 | 8.928055556 | 26.89027778 | 26.43 | 26.44597222 |
| 1943 | 8.93084507 | 26.88943662 | 26.42380282 | 26.4415493 |
| 1944 | 8.933285714 | 26.89457143 | 26.42514286 | 26.44385714 |
| 1945 | 8.934492754 | 26.89202899 | 26.42550725 | 26.44333333 |
| 1946 | 8.939705882 | 26.88941176 | 26.43279412 | 26.44485294 |
| 1947 | 8.94358209 | 26.8919403 | 26.43746269 | 26.44761194 |
| 1948 | 8.945757576 | 26.89060606 | 26.43636364 | 26.44530303 |
| 1949 | 8.948769231 | 26.89492308 | 26.44538462 | 26.45153846 |
| 1950 | 8.954375 | 26.89359375 | 26.4440625 | 26.4515625 |
| 1951 | 8.963650794 | 26.89873016 | 26.45253968 | 26.45539683 |
| 1952 | 8.969032258 | 26.89887097 | 26.45951613 | 26.45951613 |
| 1953 | 8.97442623 | 26.90278689 | 26.46836066 | 26.46557377 |
| 1954 | 8.976166667 | 26.90683333 | 26.47733333 | 26.4695 |
| 1955 | 8.983220339 | 26.91745763 | 26.48423729 | 26.47830508 |
| 1956 | 8.989310345 | 26.92603448 | 26.49655172 | 26.48810345 |
| 1957 | 9.001754386 | 26.93684211 | 26.50491228 | 26.49789474 |
| 1958 | 9.006607143 | 26.94196429 | 26.51571429 | 26.50464286 |
| 1959 | 9.010909091 | 26.94672727 | 26.51709091 | 26.50709091 |
| 1960 | 9.016111111 | 26.95092593 | 26.52592593 | 26.51074074 |
| 1961 | 9.024339623 | 26.95603774 | 26.53132075 | 26.51679245 |
| 1962 | 9.028653846 | 26.96557692 | 26.55173077 | 26.52807692 |
| 1963 | 9.034117647 | 26.97372549 | 26.56019608 | 26.53745098 |
| 1964 | 9.0376 | 26.973 | 26.5592 | 26.5384 |
| 1965 | 9.050408163 | 26.98306122 | 26.56959184 | 26.5477551 |
| 1966 | 9.06125 | 26.9925 | 26.58145833 | 26.55520833 |
| 1967 | 9.07106383 | 26.99574468 | 26.59382979 | 26.56234043 |
| 1968 | 9.079130435 | 27.00804348 | 26.60804348 | 26.57434783 |
| 1969 | 9.091555556 | 27.01555556 | 26.61711111 | 26.58066667 |
| 1970 | 9.102727273 | 27.01840909 | 26.61340909 | 26.58318182 |
| 1971 | 9.112093023 | 27.02069767 | 26.6227907 | 26.5872093 |
| 1972 | 9.124285714 | 27.03166667 | 26.63380952 | 26.5947619 |
| 1973 | 9.139512195 | 27.03463415 | 26.63634146 | 26.60707317 |
| 1974 | 9.14425 | 27.0305 | 26.626 | 26.60275 |
| 1975 | 9.161538462 | 27.04564103 | 26.64282051 | 26.6174359 |
| 1976 | 9.172631579 | 27.06605263 | 26.66263158 | 26.63657895 |
| 1977 | 9.194864865 | 27.08486486 | 26.67216216 | 26.64918919 |
| 1978 | 9.204444444 | 27.08694444 | 26.68972222 | 26.65527778 |
| 1979 | 9.219142857 | 27.09714286 | 26.70571429 | 26.67 |
| 1980 | 9.233529412 | 27.10029412 | 26.71352941 | 26.67617647 |
| 1981 | 9.241212121 | 27.10787879 | 26.72393939 | 26.68424242 |
| 1982 | 9.2434375 | 27.1178125 | 26.741875 | 26.699375 |
| 1983 | 9.262903226 | 27.13258065 | 26.75387097 | 26.71290323 |
| 1984 | 9.270666667 | 27.13733333 | 26.769 | 26.72033333 |
| 1985 | 9.290689655 | 27.14275862 | 26.77724138 | 26.73103448 |
| 1986 | 9.313214286 | 27.15714286 | 26.79142857 | 26.74571429 |
| 1987 | 9.331111111 | 27.17592593 | 26.79851852 | 26.75925926 |
| 1988 | 9.344230769 | 27.16307692 | 26.79038462 | 26.74769231 |
| 1989 | 9.35 | 27.168 | 26.8088 | 26.758 |
| 1990 | 9.367916667 | 27.18708333 | 26.85791667 | 26.79708333 |
| 1991 | 9.373913043 | 27.1926087 | 26.85826087 | 26.79956522 |
| 1992 | 9.382727273 | 27.20681818 | 26.87772727 | 26.81818182 |
| 1993 | 9.408571429 | 27.22952381 | 26.92142857 | 26.85333333 |
| 1994 | 9.4355 | 27.246 | 26.942 | 26.874 |
| 1995 | 9.456315789 | 27.26736842 | 26.98473684 | 26.91052632 |
| 1996 | 9.462222222 | 27.27833333 | 27.00833333 | 26.92666667 |
| 1997 | 9.487058824 | 27.29941176 | 27.03 | 26.94705882 |
| 1998 | 9.505 | 27.32375 | 27.053125 | 26.97625 |
| 1999 | 9.504 | 27.31 | 27.06133333 | 26.972 |
| 2000 | 9.519285714 | 27.33 | 27.07642857 | 26.98071429 |
| 2001 | 9.543846154 | 27.35384615 | 27.13 | 27.03153846 |
| 2002 | 9.555 | 27.39 | 27.185 | 27.06916667 |
| 2003 | 9.553636364 | 27.41363636 | 27.20545455 | 27.08 |
| 2004 | 9.556 | 27.418 | 27.243 | 27.104 |
| 2005 | 9.582222222 | 27.42888889 | 27.27111111 | 27.12111111 |
| 2006 | 9.5675 | 27.43375 | 27.27125 | 27.125 |
| 2007 | 9.572857143 | 27.42 | 27.27285714 | 27.10857143 |
| 2008 | 9.546666667 | 27.41333333 | 27.27666667 | 27.09333333 |
| 2009 | 9.57 | 27.436 | 27.39 | 27.162 |
| 2010 | 9.585 | 27.4125 | 27.3675 | 27.155 |
| 2011 | 9.546666667 | 27.28666667 | 27.27666667 | 27.09 |
| 2012 | 9.56 | 27.255 | 27.315 | 27.09 |
| 2013 | 9.61 | 27.36 | 27.76 | 27.25 |