

1. What tools did you use for each step?

```
SELECT *
FROM global_data
Where year > 1990
-----
```

```
SELECT *
FROM city_data c
WHERE c.year > 1990 And city = 'Baku' ;b.
```

| year | city | avg_temp | City 5 Ye | avg_temp | 5 Years | Difference |
|------|------|----------|-----------|----------|---------|------------|
| 1991 | Baku | 11.9 | | 9.18 | | 2.72 |
| 1992 | Baku | 10.93 | | 8.84 | | 2.09 |
| 1993 | Baku | 10.53 | | 8.87 | | 1.66 |
| 1994 | Baku | 11.32 | | 9.04 | | 2.28 |
| 1995 | Baku | 12.81 | 11.498 | 9.35 | 9.056 | 3.46 |
| 1996 | Baku | 11.96 | 11.51 | 9.04 | 9.028 | 2.92 |
| 1997 | Baku | 11.89 | 11.702 | 9.2 | 9.1 | 2.69 |
| 1998 | Baku | 12.79 | 12.154 | 9.52 | 9.23 | 3.27 |
| 1999 | Baku | 12.74 | 12.438 | 9.29 | 9.28 | 3.45 |
| 2000 | Baku | 12.61 | 12.398 | 9.2 | 9.25 | 3.41 |
| 2001 | Baku | 12.97 | 12.6 | 9.41 | 9.324 | 3.56 |
| 2002 | Baku | 12.45 | 12.712 | 9.57 | 9.398 | 2.88 |
| 2003 | Baku | 11.81 | 12.516 | 9.53 | 9.4 | 2.28 |
| 2004 | Baku | 12.76 | 12.52 | 9.32 | 9.406 | 3.44 |
| 2005 | Baku | 12.88 | 12.574 | 9.7 | 9.506 | 3.18 |
| 2006 | Baku | 12.66 | 12.512 | 9.53 | 9.53 | 3.13 |
| 2007 | Baku | 12.75 | 12.572 | 9.73 | 9.562 | 3.02 |
| 2008 | Baku | 12.3 | 12.67 | 9.43 | 9.542 | 2.87 |
| 2009 | Baku | 12.6 | 12.638 | 9.51 | 9.58 | 3.09 |
| 2010 | Baku | 13.85 | 12.832 | 9.7 | 9.58 | 4.15 |
| 2011 | Baku | 11.79 | 12.658 | 9.52 | 9.578 | 2.27 |
| 2012 | Baku | 13 | 12.708 | 9.51 | 9.534 | 3.49 |
| 2013 | Baku | 14.12 | 13.072 | 9.61 | 9.57 | 4.51 |

Moving Averages:

- Rolling Average has been calculated to smooth out data and to make it easier to observe the trends when it be shown in Charts.
- Average has been calculated for every 5 years
 - We used some functin on Excel

| AutoSave OFF Home Insert Draw Page Layout Formulas | | | | | |
|--|------|------|----------|--------------|----------|
| <div> <div>fx</div> <div>Insert Function</div> </div> <div> <div>Σ</div> <div>AutoSum</div> </div> <div> <div></div> <div>Recently Used</div> </div> <div> <div></div> <div>Financial</div> </div> <div> <div></div> <div>Logical</div> </div> <div> <div></div> <div>Text</div> </div> <div> <div></div> <div>Date Time</div> </div> | | | | | |
| <div> <div>AVERAGE</div> <div></div> <div></div> <div>fx</div> <div>=AVERAGE(C2:C6)</div> </div> | | | | | |
| | A | B | C | D | E |
| 1 | year | city | avg_temp | City 5 Years | avg_temp |
| 2 | 1991 | Baku | 11.9 | | 9.18 |
| 3 | 1992 | Baku | 10.93 | | 8.84 |
| 4 | 1993 | Baku | 10.53 | | 8.87 |
| 5 | 1994 | Baku | 11.32 | | 9.04 |
| 6 | 1995 | Baku | 12.81 | C2:C6) | 9.35 |
| 7 | 1996 | Baku | 11.96 | | 9.04 |
| 8 | 1997 | Baku | 11.89 | | 9.2 |
| 9 | 1998 | Baku | 12.79 | | 9.52 |
| 10 | 1999 | Baku | 12.74 | | 9.29 |
| 11 | 2000 | Baku | 12.61 | | 9.2 |
| 12 | 2001 | Baku | 12.97 | | 9.41 |
| 13 | 2002 | Baku | 12.45 | | 9.57 |
| 14 | 2003 | Baku | 11.81 | | 9.53 |
| 15 | 2004 | Baku | 12.76 | | 9.32 |
| 16 | 2005 | Baku | 12.88 | | 9.7 |
| 17 | 2006 | Baku | 12.66 | | 9.53 |
| 18 | 2007 | Baku | 12.75 | | 9.73 |
| 19 | 2008 | Baku | 12.3 | | 9.43 |
| 20 | 2009 | Baku | 12.6 | | 9.51 |
| 21 | 2010 | Baku | 13.85 | | 9.7 |
| 22 | 2011 | Baku | 11.79 | | 9.52 |
| 23 | 2012 | Baku | 13 | | 9.51 |
| 24 | 2013 | Baku | 14.12 | | 9.61 |

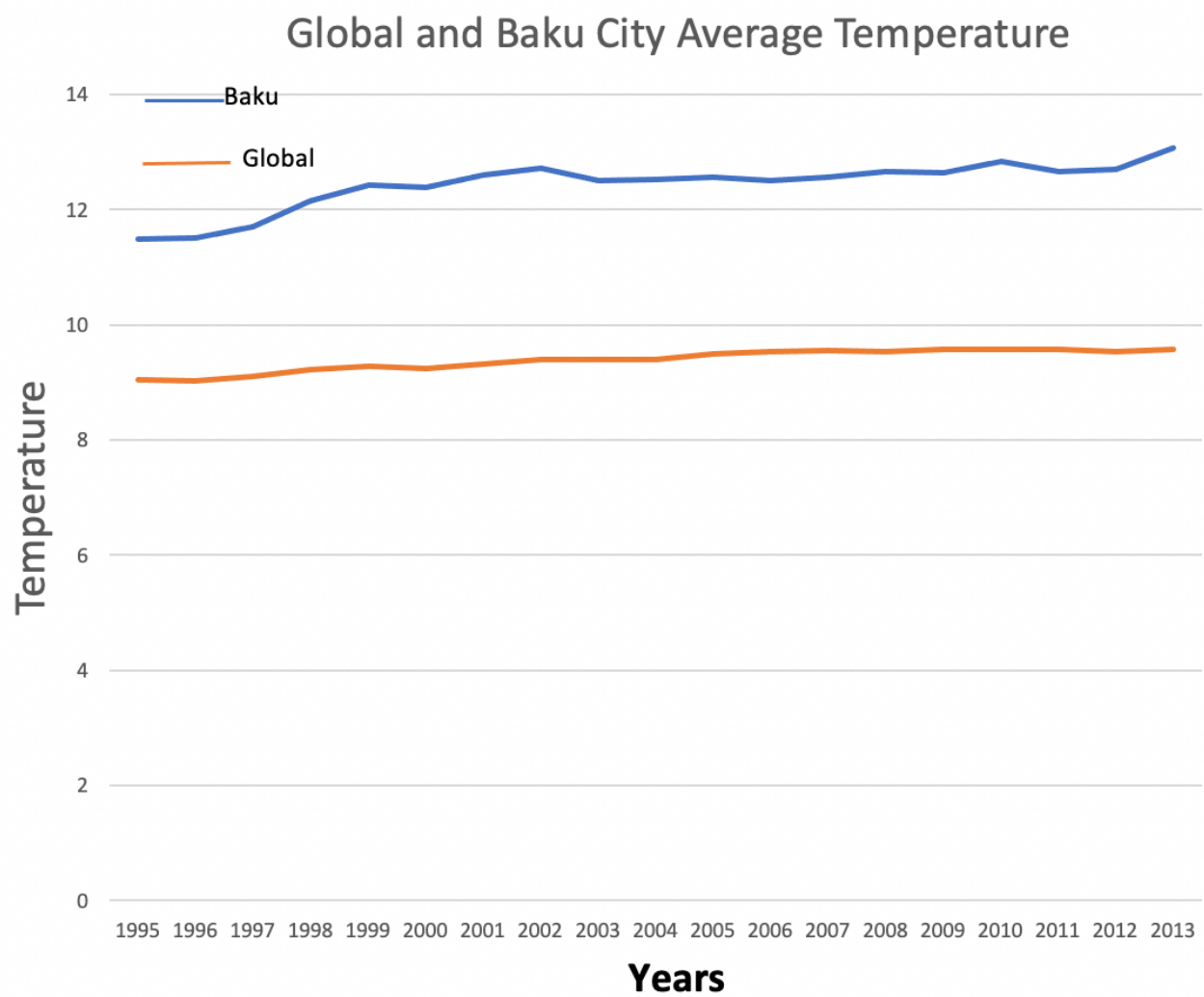
| AutoSave OFF | | | | | | |
|--|------|------|----------|--------------|----------|---|
| <div> <div>Home</div> <div>Insert</div> <div>Draw</div> <div>Page Layout</div> <div>Formulas</div> </div> | | | | | | |
| <div> <div> <div>fx</div> <div>Insert Function</div> </div> <div> <div>Σ</div> <div>AutoSum</div> </div> <div> <div></div> <div>Recently Used</div> </div> <div> <div></div> <div>Financial</div> </div> <div> <div></div> <div>Logical</div> </div> <div> <div></div> <div>Text</div> </div> <div> <div></div> <div>Data Tools</div> </div> </div> | | | | | | |
| <div> <div>D6</div> <div>fx</div> <div>=AVERAGE(C2:C6)</div> </div> | | | | | | |
| | A | B | C | D | E | |
| 1 | year | city | avg_temp | City 5 Years | avg_temp | ! |
| 2 | 1991 | Baku | 11.9 | | 9.18 | |
| 3 | 1992 | Baku | 10.93 | | 8.84 | |
| 4 | 1993 | Baku | 10.53 | | 8.87 | |
| 5 | 1994 | Baku | 11.32 | | 9.04 | |
| 6 | 1995 | Baku | 12.81 | 11.498 | 9.35 | |
| 7 | 1996 | Baku | 11.96 | | 9.04 | |
| 8 | 1997 | Baku | 11.89 | | 9.2 | |
| 9 | 1998 | Baku | 12.79 | | 9.52 | |
| 10 | 1999 | Baku | 12.74 | | 9.29 | |
| 11 | 2000 | Baku | 12.61 | | 9.2 | |
| 12 | 2001 | Baku | 12.97 | | 9.41 | |
| 13 | 2002 | Baku | 12.45 | | 9.57 | |
| 14 | 2003 | Baku | 11.81 | | 9.53 | |
| 15 | 2004 | Baku | 12.76 | | 9.32 | |
| 16 | 2005 | Baku | 12.88 | | 9.7 | |
| 17 | 2006 | Baku | 12.66 | | 9.53 | |
| 18 | 2007 | Baku | 12.75 | | 9.73 | |
| 19 | 2008 | Baku | 12.3 | | 9.43 | |
| 20 | 2009 | Baku | 12.6 | | 9.51 | |
| 21 | 2010 | Baku | 13.85 | | 9.7 | |
| 22 | 2011 | Baku | 11.79 | | 9.52 | |
| 23 | 2012 | Baku | 13 | | 9.51 | |
| 24 | 2013 | Baku | 14.12 | | 9.61 | |

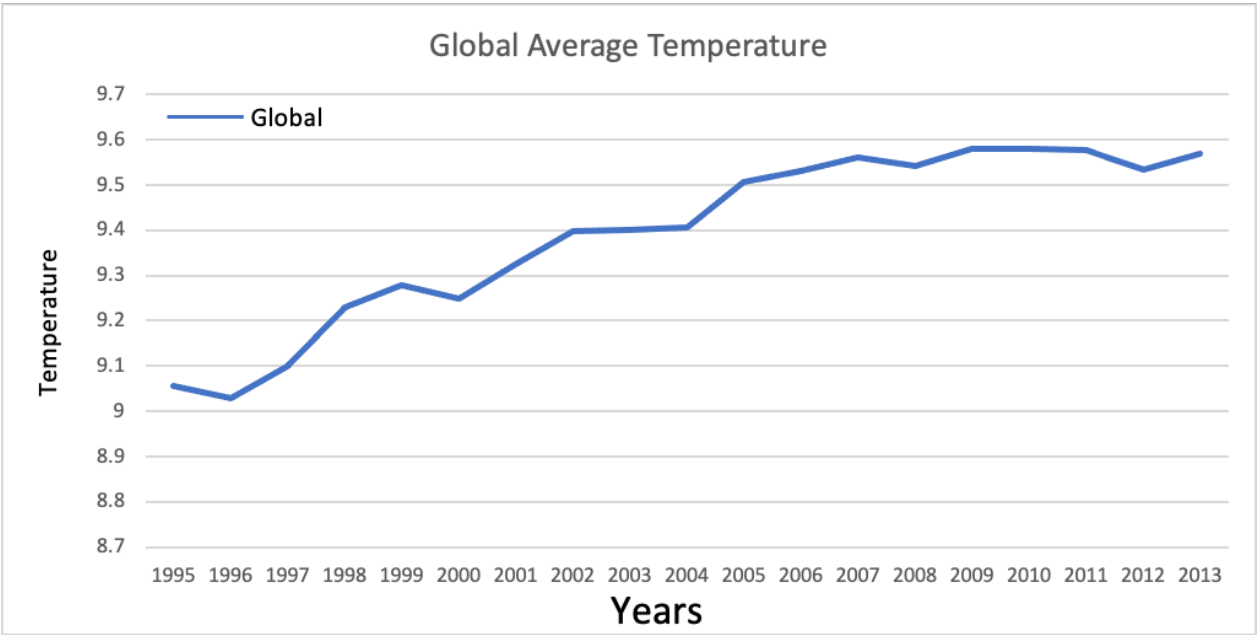
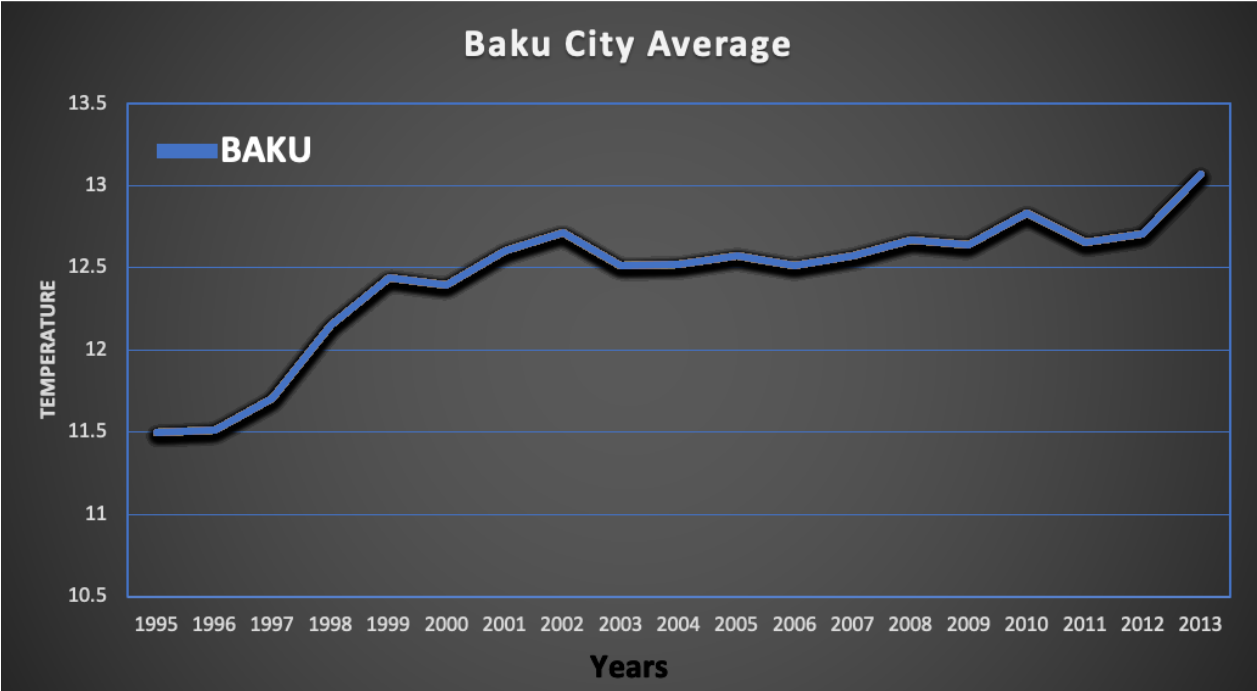
| AutoSave OFF Home Insert Draw Page Layout Formulas | | | | | | |
|--|------|------|----------|--------------|----------|-----|
| <div> <div>fx</div> <div> <div>Σ</div> <div></div> <div></div> <div></div> <div></div> <div></div> </div> <div> <div>Insert Function</div> <div>AutoSum</div> <div>Recently Used</div> <div>Financial</div> <div>Logical</div> <div>Text</div> <div>Date & Time</div> </div> </div> | | | | | | |
| D6 fx =AVERAGE(C2:C6) | | | | | | |
| | A | B | C | D | E | |
| 1 | year | city | avg_temp | City 5 Years | avg_temp | 5 Y |
| 2 | 1991 | Baku | 11.9 | | 9.18 | |
| 3 | 1992 | Baku | 10.93 | | 8.84 | |
| 4 | 1993 | Baku | 10.53 | | 8.87 | |
| 5 | 1994 | Baku | 11.32 | | 9.04 | |
| 6 | 1995 | Baku | 12.81 | 11.498 | 9.35 | |
| 7 | 1996 | Baku | 11.96 | 11.51 | 9.04 | |
| 8 | 1997 | Baku | 11.89 | 11.702 | 9.2 | |
| 9 | 1998 | Baku | 12.79 | 12.154 | 9.52 | |
| 0 | 1999 | Baku | 12.74 | 12.438 | 9.29 | |
| 1 | 2000 | Baku | 12.61 | 12.398 | 9.2 | |
| 2 | 2001 | Baku | 12.97 | 12.6 | 9.41 | |
| 3 | 2002 | Baku | 12.45 | 12.712 | 9.57 | |
| 4 | 2003 | Baku | 11.81 | 12.516 | 9.53 | |
| 5 | 2004 | Baku | 12.76 | 12.52 | 9.32 | |
| 6 | 2005 | Baku | 12.88 | 12.574 | 9.7 | |
| 7 | 2006 | Baku | 12.66 | 12.512 | 9.53 | |
| 8 | 2007 | Baku | 12.75 | 12.572 | 9.73 | |
| 9 | 2008 | Baku | 12.3 | 12.67 | 9.43 | |
| 0 | 2009 | Baku | 12.6 | 12.638 | 9.51 | |
| 1 | 2010 | Baku | 13.85 | 12.832 | 9.7 | |
| 2 | 2011 | Baku | 11.79 | 12.658 | 9.52 | |
| 3 | 2012 | Baku | 13 | 12.708 | 9.51 | |
| 4 | 2013 | Baku | 14.12 | 13.072 | 9.61 | |

| AutoSave OFF Home Insert Draw Page Layout Formulas Data Review | | | | | | | |
|---|------|------|----------|--------------|----------|---------|------------|
| <div> <div>fx</div> <div> <div>Σ</div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> </div> <div> <div>Insert Function</div> <div>AutoSum</div> <div>Recently Used</div> <div>Financial</div> <div>Logical</div> <div>Text</div> <div>Date & Time</div> <div>Lookup & Reference</div> <div>Math & Trig</div> </div> </div> | | | | | | | |
| AVERAGE ▲▼ ✖ ✓ fx $= (C2-E2)$ | | | | | | | |
| | A | B | C | D | E | F | G |
| 1 | year | city | avg_temp | City 5 Years | avg_temp | 5 Years | Difference |
| 2 | 1991 | Baku | 11.9 | | 9.18 | | $=(C2-E2)$ |
| 3 | 1992 | Baku | 10.93 | | 8.84 | | |
| 4 | 1993 | Baku | 10.53 | | 8.87 | | |
| 5 | 1994 | Baku | 11.32 | | 9.04 | | |
| 6 | 1995 | Baku | 12.81 | 11.498 | 9.35 | 9.056 | |
| 7 | 1996 | Baku | 11.96 | 11.51 | 9.04 | 9.028 | |
| 8 | 1997 | Baku | 11.89 | 11.702 | 9.2 | 9.1 | |
| 9 | 1998 | Baku | 12.79 | 12.154 | 9.52 | 9.23 | |
| 10 | 1999 | Baku | 12.74 | 12.438 | 9.29 | 9.28 | |
| 11 | 2000 | Baku | 12.61 | 12.398 | 9.2 | 9.25 | |
| 12 | 2001 | Baku | 12.97 | 12.6 | 9.41 | 9.324 | |
| 13 | 2002 | Baku | 12.45 | 12.712 | 9.57 | 9.398 | |
| 14 | 2003 | Baku | 11.81 | 12.516 | 9.53 | 9.4 | |
| 15 | 2004 | Baku | 12.76 | 12.52 | 9.32 | 9.406 | |
| 16 | 2005 | Baku | 12.88 | 12.574 | 9.7 | 9.506 | |
| 17 | 2006 | Baku | 12.66 | 12.512 | 9.53 | 9.53 | |
| 18 | 2007 | Baku | 12.75 | 12.572 | 9.73 | 9.562 | |
| 19 | 2008 | Baku | 12.3 | 12.67 | 9.43 | 9.542 | |
| 20 | 2009 | Baku | 12.6 | 12.638 | 9.51 | 9.58 | |
| 21 | 2010 | Baku | 13.85 | 12.832 | 9.7 | 9.58 | |
| 22 | 2011 | Baku | 11.79 | 12.658 | 9.52 | 9.578 | |
| 23 | 2012 | Baku | 13 | 12.708 | 9.51 | 9.534 | |
| 24 | 2013 | Baku | 14.12 | 13.072 | 9.61 | 9.57 | |

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| <div> <i>fx</i> Σ </div> <div> Insert Function AutoSum Recently Used Financial Logical Text Date & Time Lookup & Reference Math & Trig </div> | | | | | | | |
| G2 ✕ ✓ <i>fx</i> =(C2-E2) | | | | | | | |
| | A | B | C | D | E | F | G |
| 1 | year | city | avg_temp | City 5 Years | avg_temp | 5 Years | Difference |
| 2 | 1991 | Baku | 11.9 | | 9.18 | | 2.72 |
| 3 | 1992 | Baku | 10.93 | | 8.84 | | 2.09 |
| 4 | 1993 | Baku | 10.53 | | 8.87 | | 1.66 |
| 5 | 1994 | Baku | 11.32 | | 9.04 | | 2.28 |
| 6 | 1995 | Baku | 12.81 | 11.498 | 9.35 | 9.056 | 3.46 |
| 7 | 1996 | Baku | 11.96 | 11.51 | 9.04 | 9.028 | 2.92 |
| 8 | 1997 | Baku | 11.89 | 11.702 | 9.2 | 9.1 | 2.69 |
| 9 | 1998 | Baku | 12.79 | 12.154 | 9.52 | 9.23 | 3.27 |
| 10 | 1999 | Baku | 12.74 | 12.438 | 9.29 | 9.28 | 3.45 |
| 11 | 2000 | Baku | 12.61 | 12.398 | 9.2 | 9.25 | 3.41 |
| 12 | 2001 | Baku | 12.97 | 12.6 | 9.41 | 9.324 | 3.56 |
| 13 | 2002 | Baku | 12.45 | 12.712 | 9.57 | 9.398 | 2.88 |
| 14 | 2003 | Baku | 11.81 | 12.516 | 9.53 | 9.4 | 2.28 |
| 15 | 2004 | Baku | 12.76 | 12.52 | 9.32 | 9.406 | 3.44 |
| 16 | 2005 | Baku | 12.88 | 12.574 | 9.7 | 9.506 | 3.18 |
| 17 | 2006 | Baku | 12.66 | 12.512 | 9.53 | 9.53 | 3.13 |
| 18 | 2007 | Baku | 12.75 | 12.572 | 9.73 | 9.562 | 3.02 |
| 19 | 2008 | Baku | 12.3 | 12.67 | 9.43 | 9.542 | 2.87 |
| 20 | 2009 | Baku | 12.6 | 12.638 | 9.51 | 9.58 | 3.09 |
| 21 | 2010 | Baku | 13.85 | 12.832 | 9.7 | 9.58 | 4.15 |
| 22 | 2011 | Baku | 11.79 | 12.658 | 9.52 | 9.578 | 2.27 |
| 23 | 2012 | Baku | 13 | 12.708 | 9.51 | 9.534 | 3.49 |
| 24 | 2013 | Baku | 14.12 | 13.072 | 9.61 | 9.57 | 4.51 |

| | ▼ Max | ▼ Min | ▼ Avg | ▼ |
|--------|-------|-------|------------|---|
| Baku | 14.12 | 10.53 | 12.4095652 | |
| Global | 9.73 | 8.84 | 9.37391304 | |





Observations & Conclusion

- The Baku city's temperature has been consistently higher than the global average over time.
- Over time, it seems that the city's temperatures have changed similarly to the global average.
- Over time, both types of temperature (global and local) show an upward trend, that is the world is getting hotter.
- The change of the climate between the globe and Baku city is slightly small, and both of them are raising.