Graph, Diagram → should be persuasive, clear and interesting.

Data visualization is... art and science.

art: in effective way...

science: should deliever accurate information.

## Chapter 1.

Readable Data → visible Data.

### aesthetics (시각적 요소)

- Position, Shape, size, Color...

types of Data
- Continuous Data
- Discrete Data.
- quantitive
- qualitative → factor, level

Ex) Dog, Cat, fish...

Ex) Good, Better, Best...

Ex)

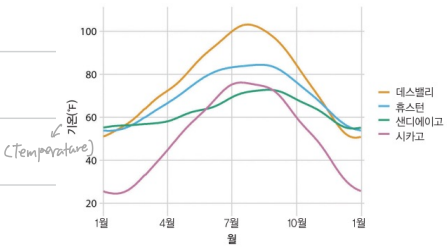
| Month | Day | Region | Observatory | Temperature |
|---|---|---|---|---|
| 1 | 1 | Chicago | USW00014819 | 25.6 |
| 1 | 1 | San Diego | USW00093107 | 55.2 |
| 1 | 2 | Houston | USW00012918 | 53.9 |
| ↓ | ↓ | ↓ | ↓ | ↓ |
| Ordered factor | Ordered factor | Unordered factor | unordered factor | Continuous Data. |

Data → visualize ...

↓

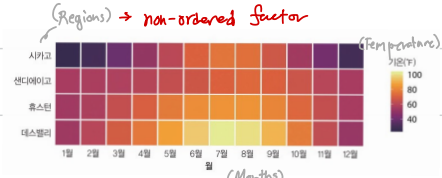
Should think about 'Scale'

* One feature of data must correspond with 'one' visual feature.




{ temperature → y axis

Regions → Color




↳ ordered factor

↑ Region → y axis

Temperature → Color

⇒ Both of [x, y axis] contains (Position scale)

non-continuous scale. → discrete.

↓

use fixed interval in the graph.

ordered factor → follow order

non-ordered ...

in this case, put colder places (chicago) on the top to make better color gradation.

blue

↓

Red