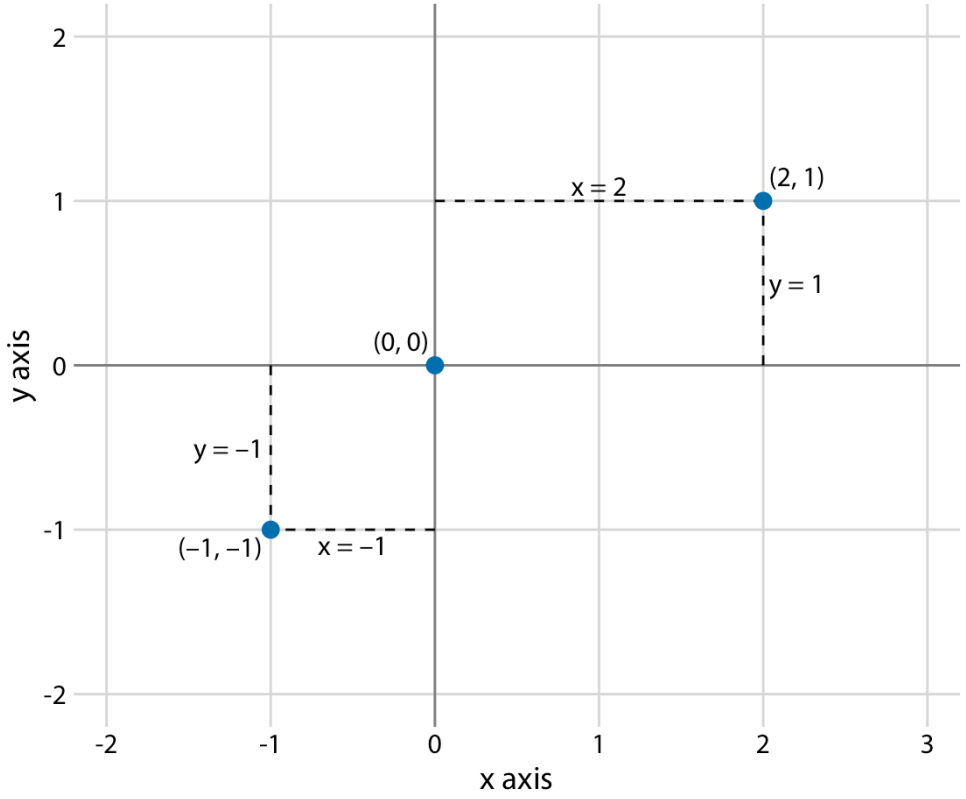
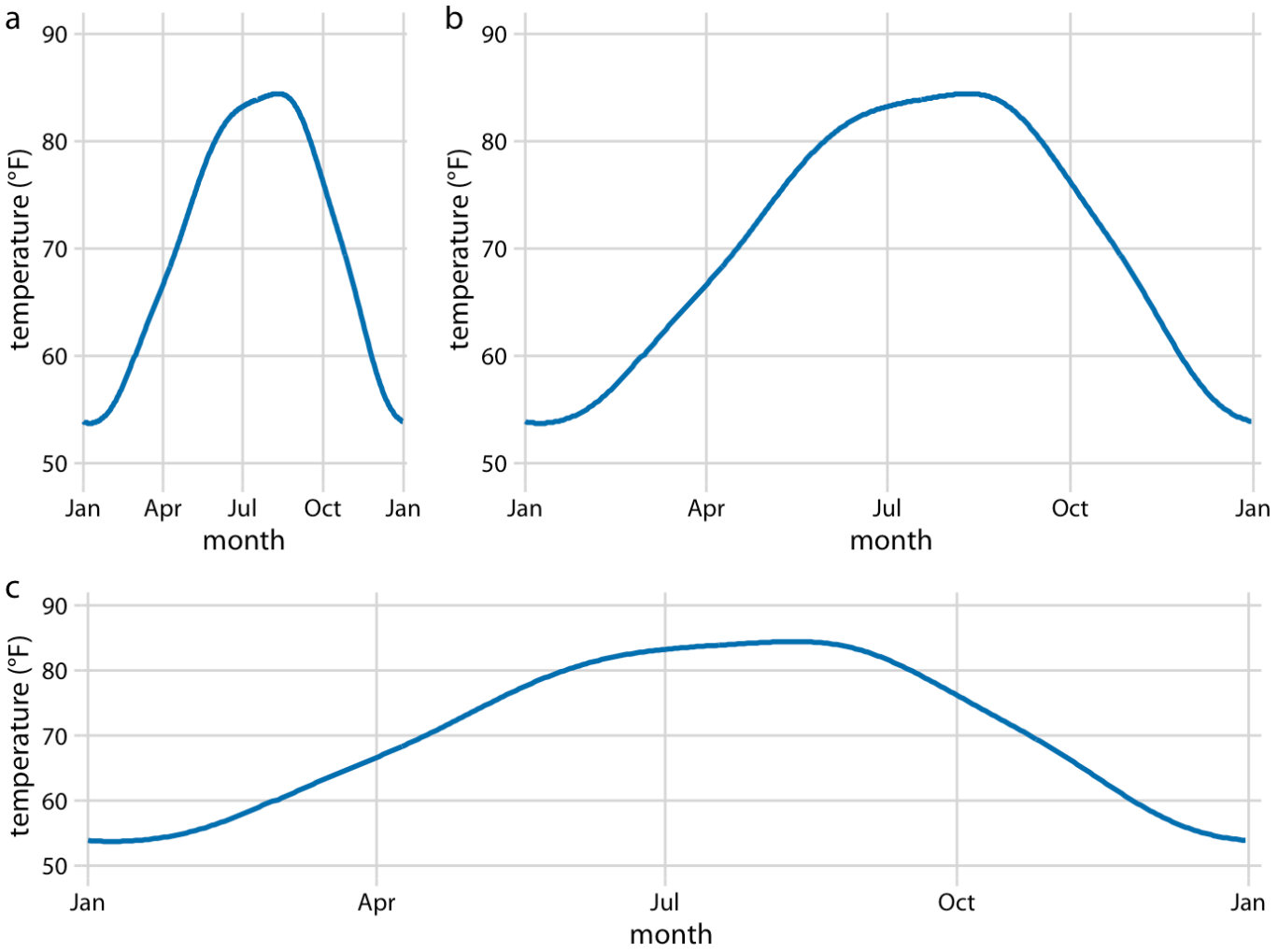
Data Visualization Essentials

Coordinate Systems and Axes

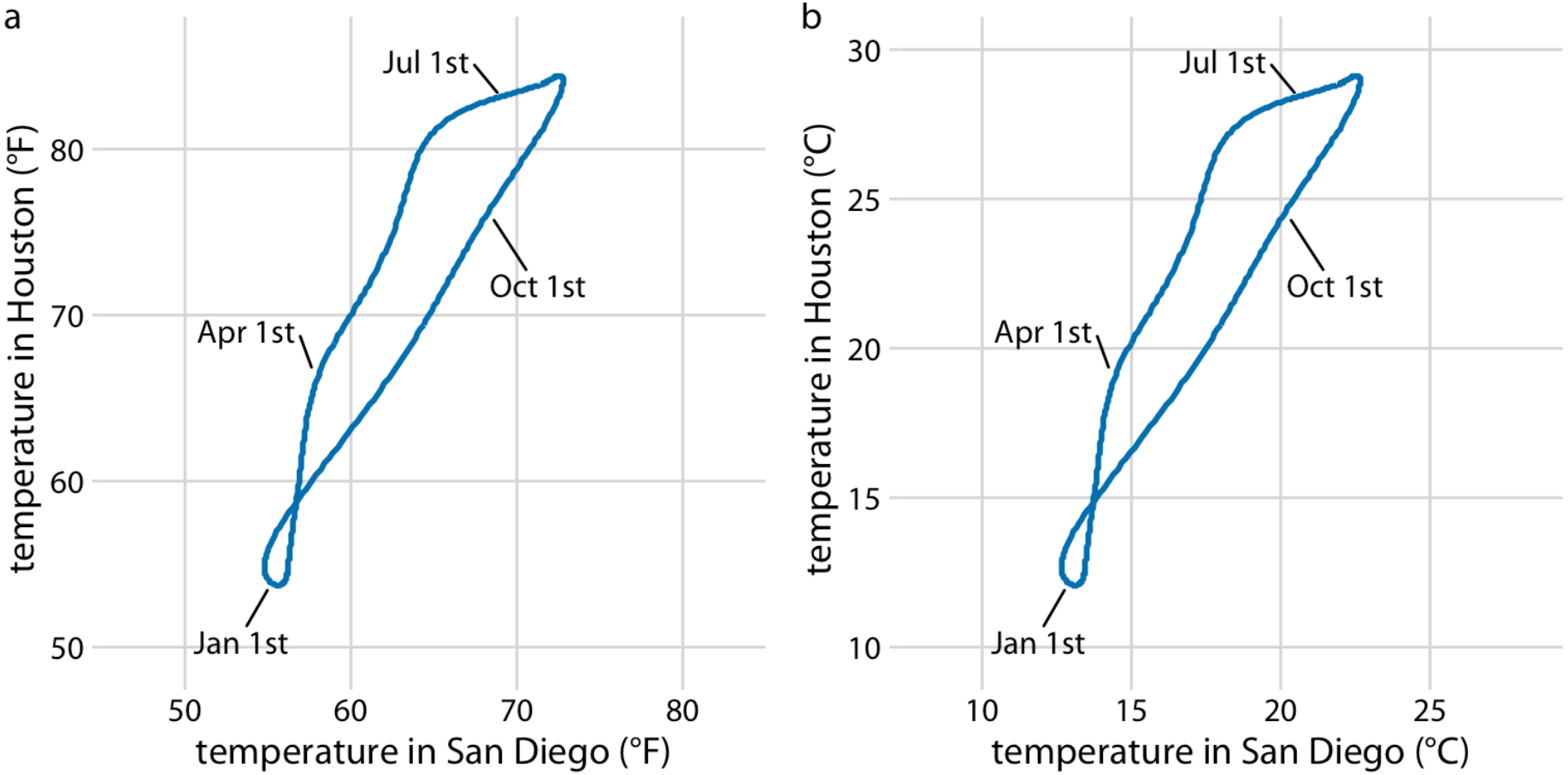
- Importance of position scales in data visualization
- Need for defining coordinate systems and axes
- Cartesian Coordinates
- Importance of units in data values



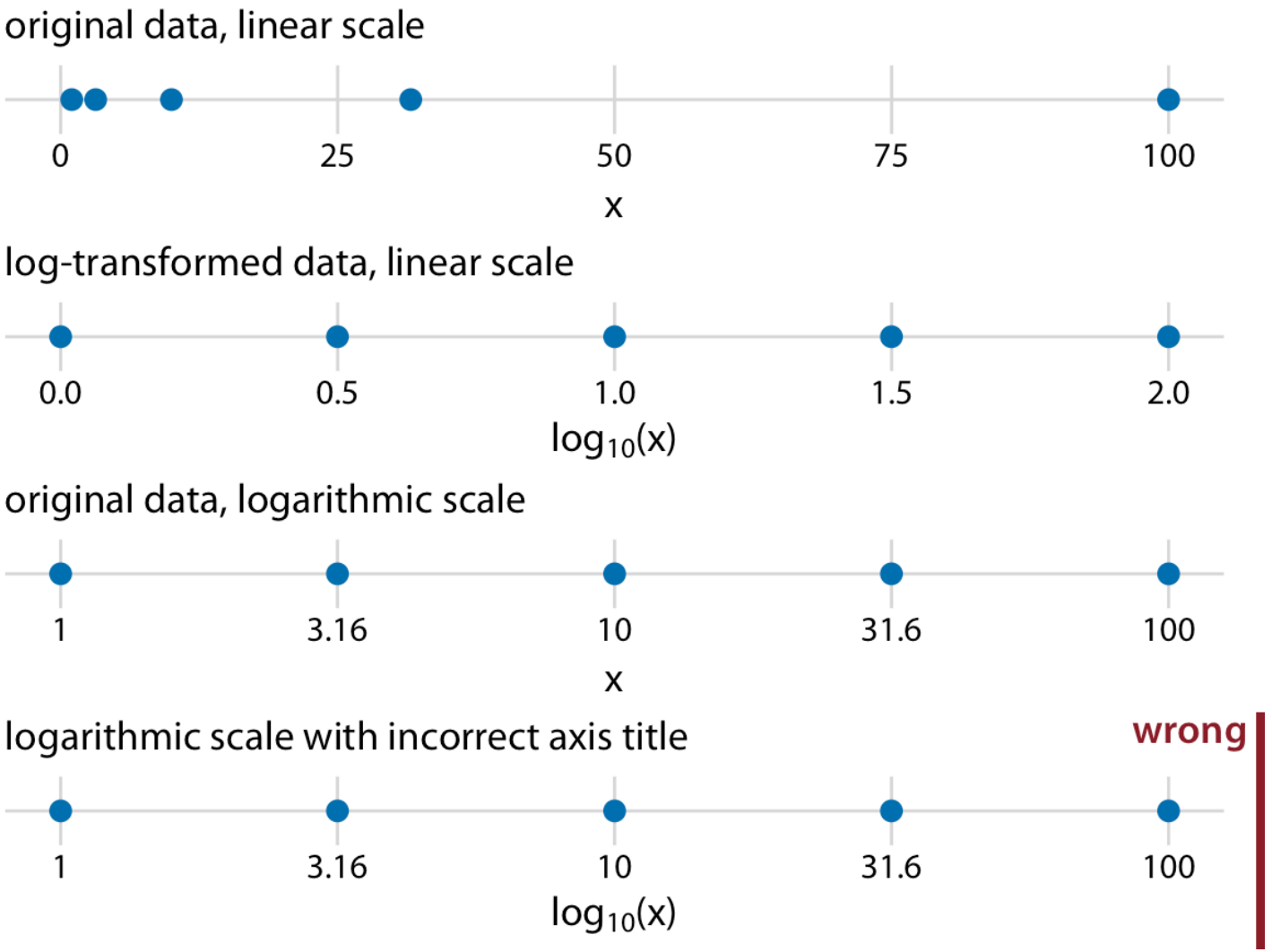
Two Axes with Different Units



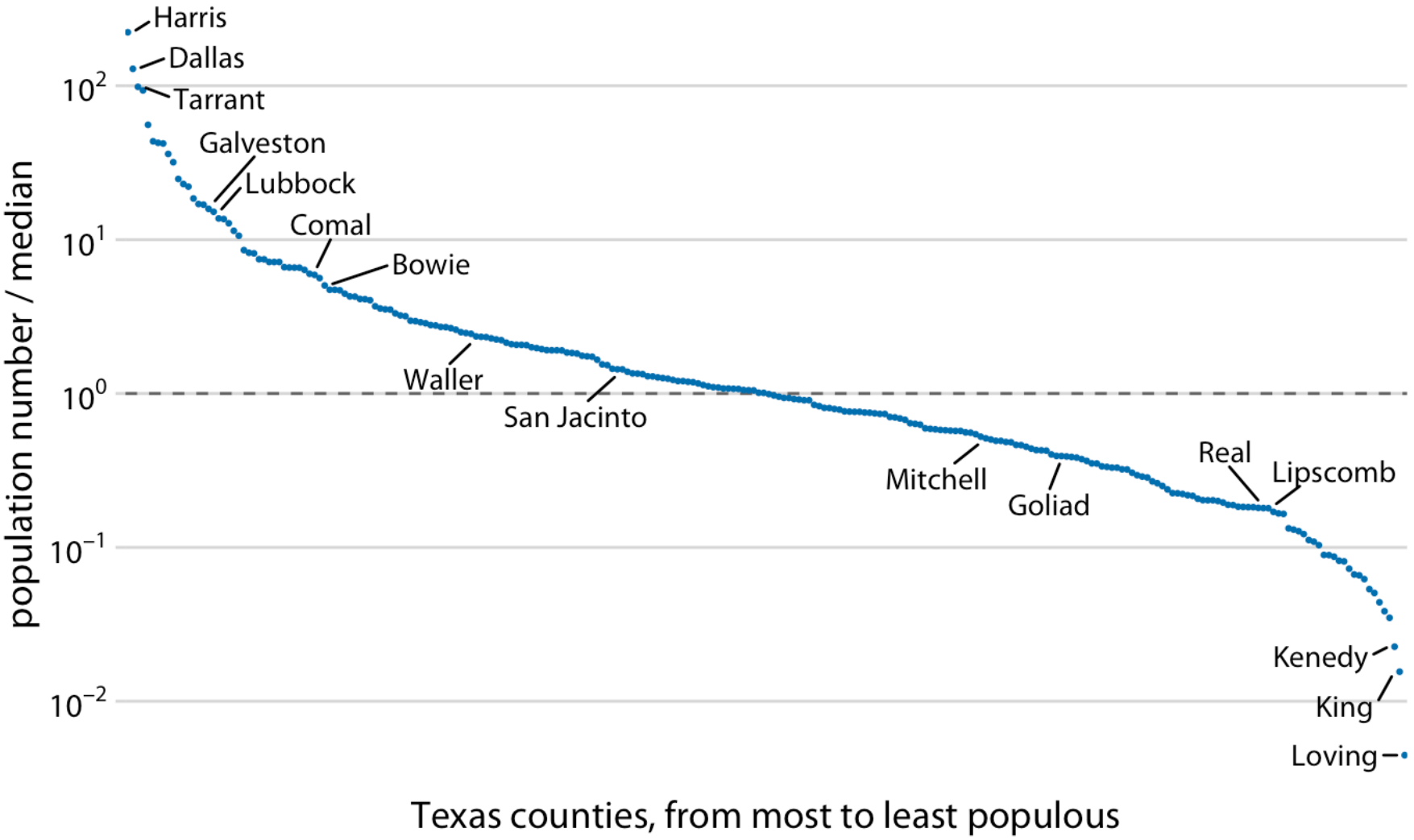
Linear Transformation in Cartesian Coordinates



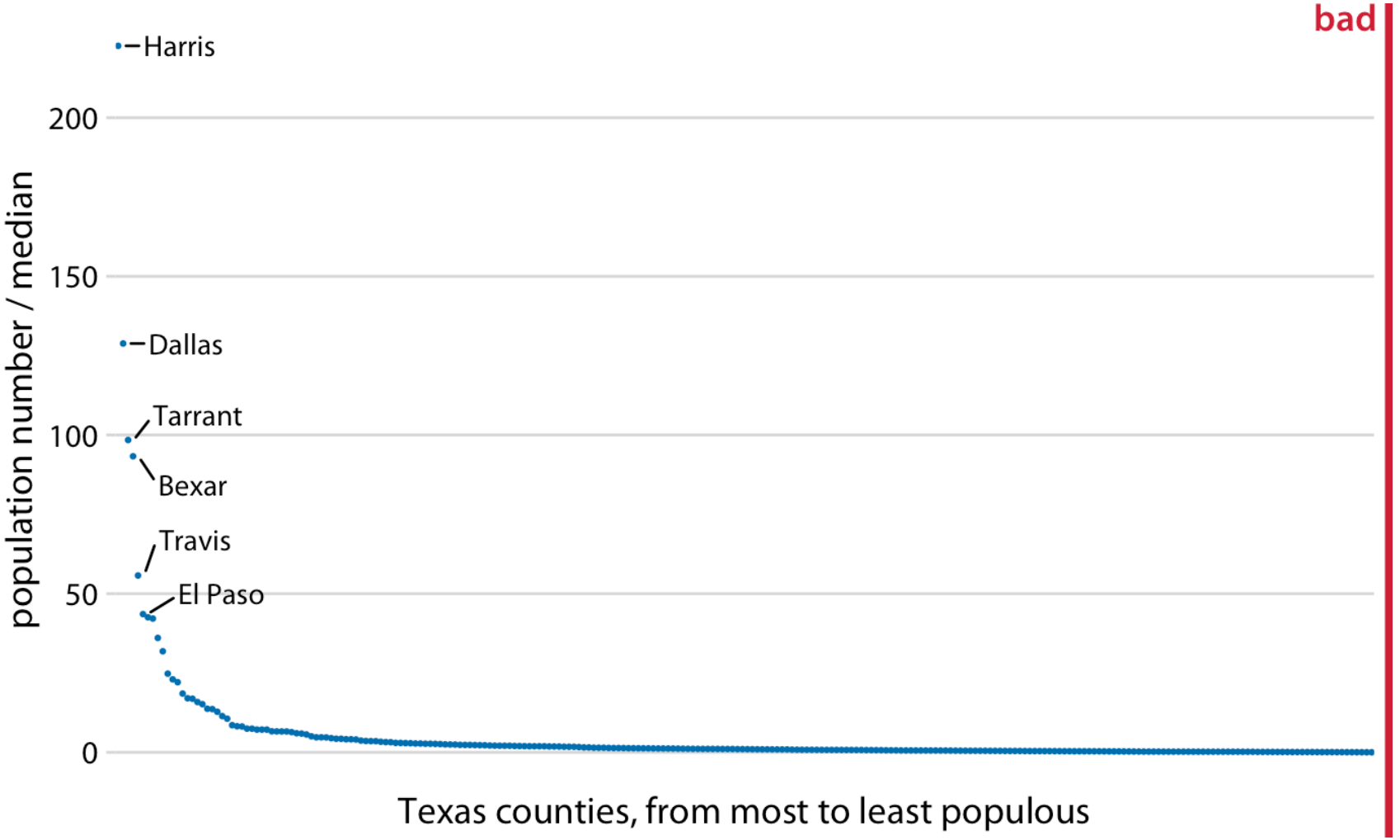
Nonlinear Axes



Log Scales for Ratios



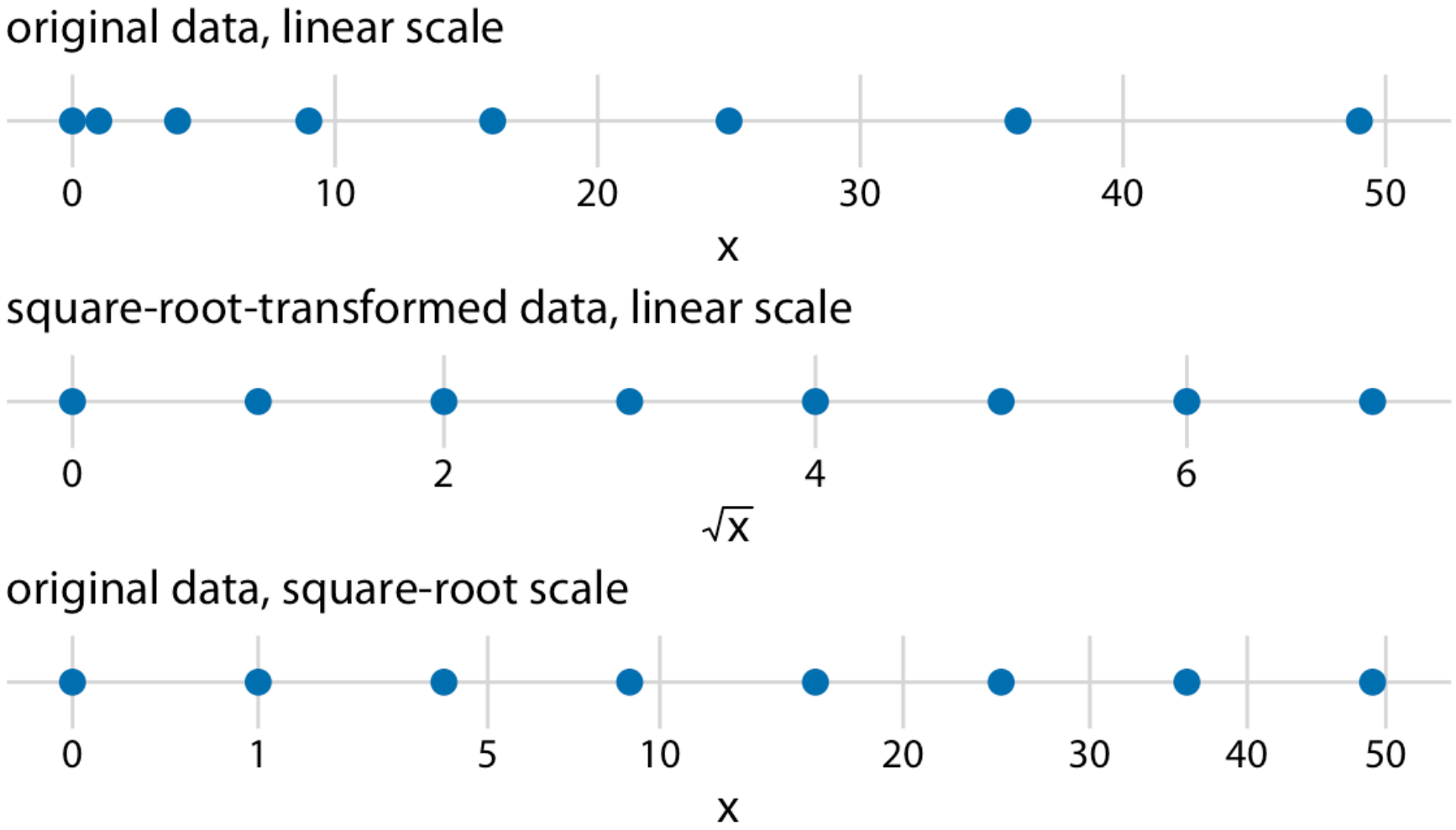
Population sizes of Texas counties



Square-Root Scales

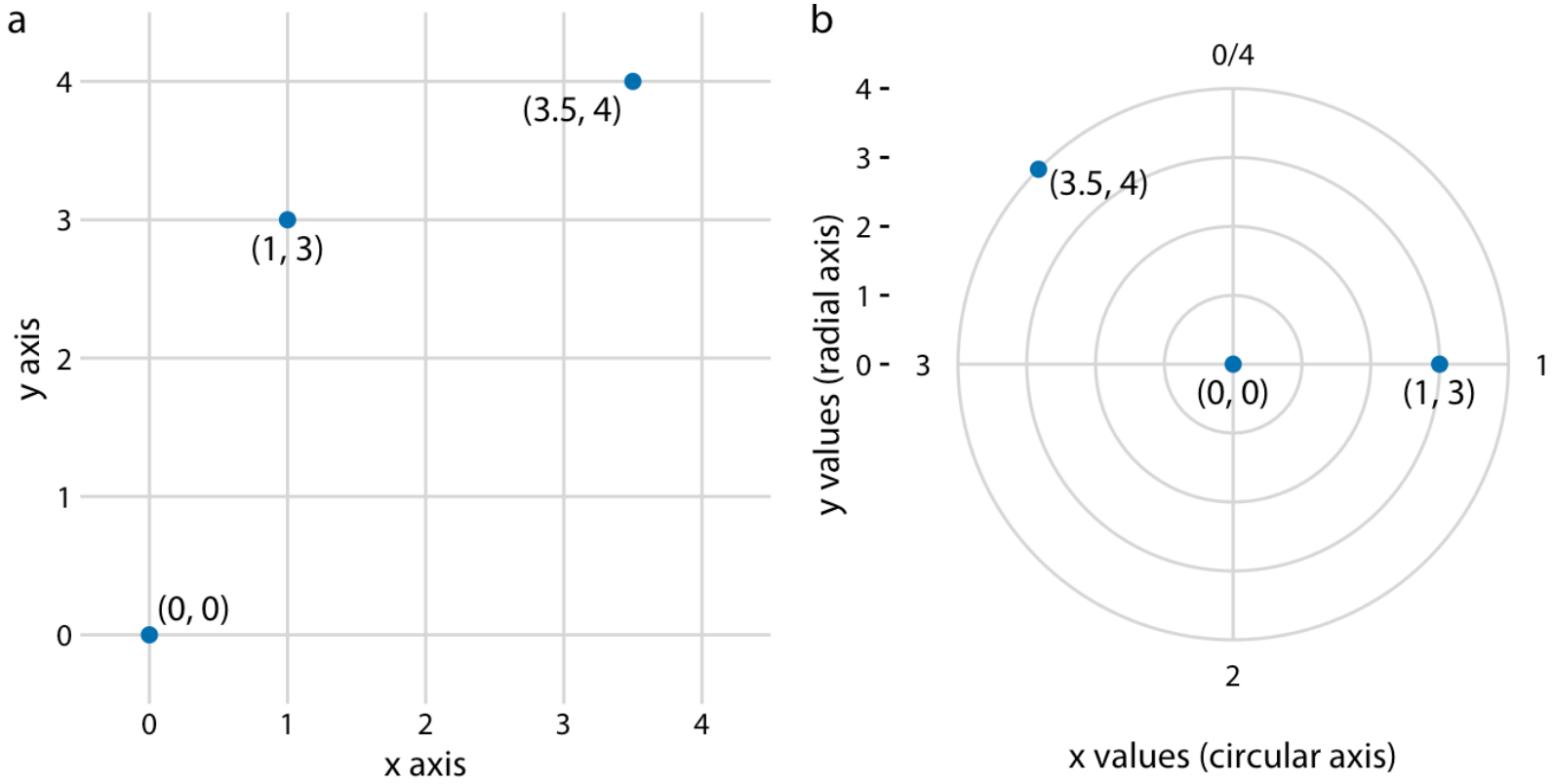
- Square-root scales as an alternative to log scales
- Challenges associated with square-root scales

Relationship between linear and square-root scales

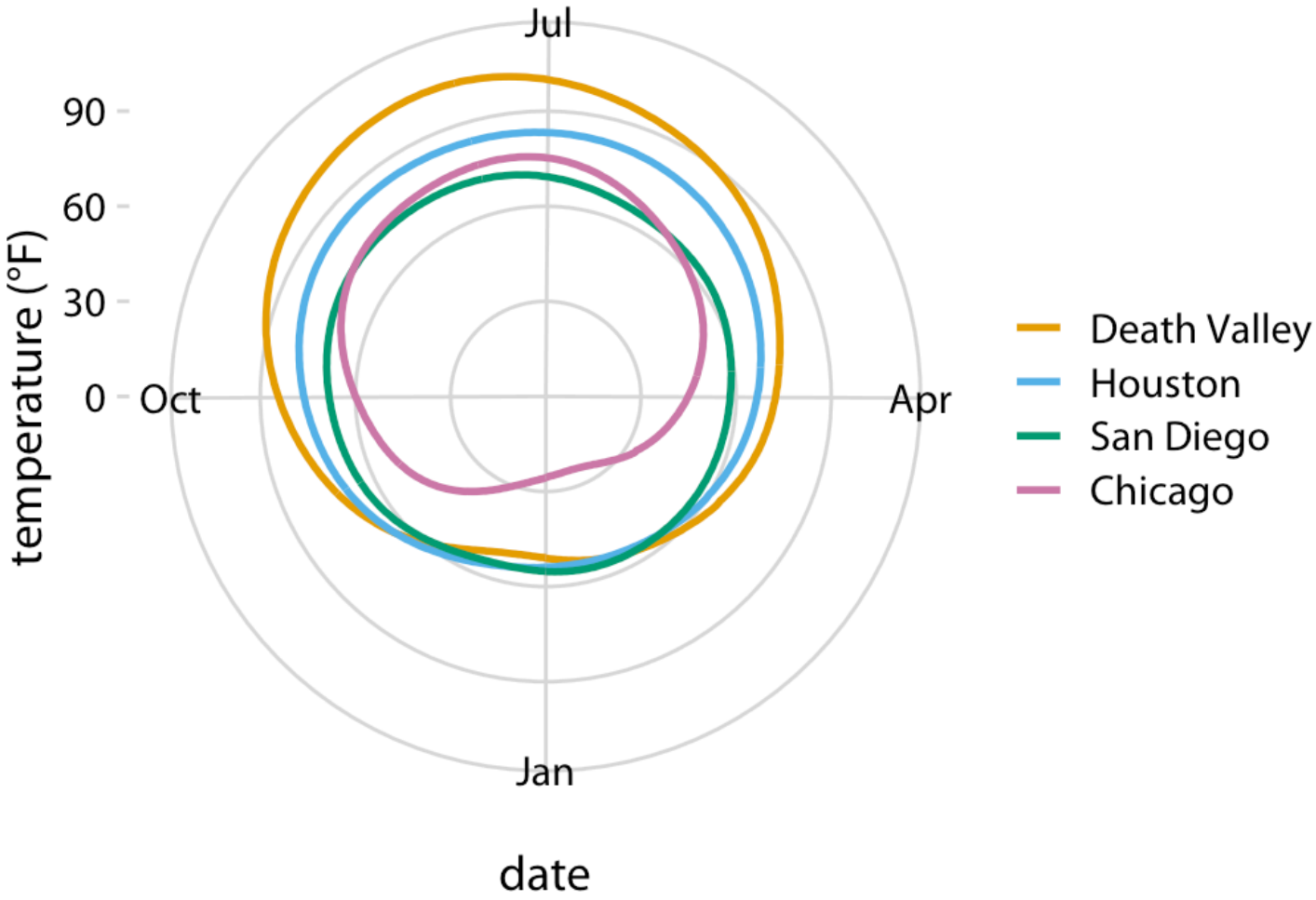


Coordinate Systems with Curved Axes

- Polar coordinates and their application for periodic data
- Relationship between Cartesian and polar coordinates

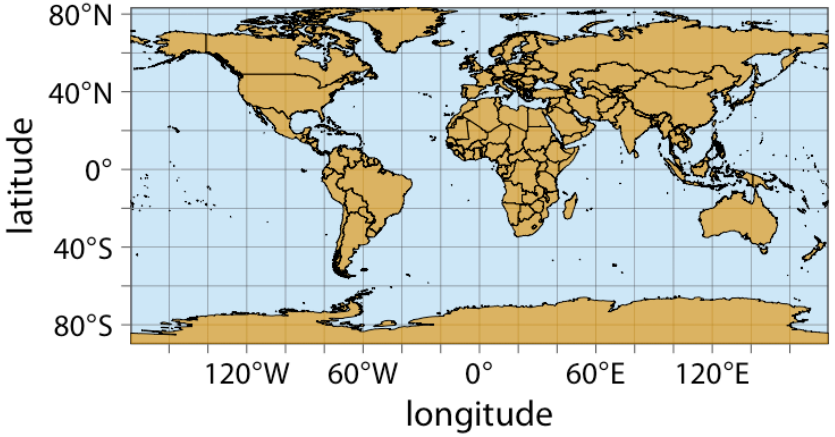


Polar Coordinates for Temperature Data

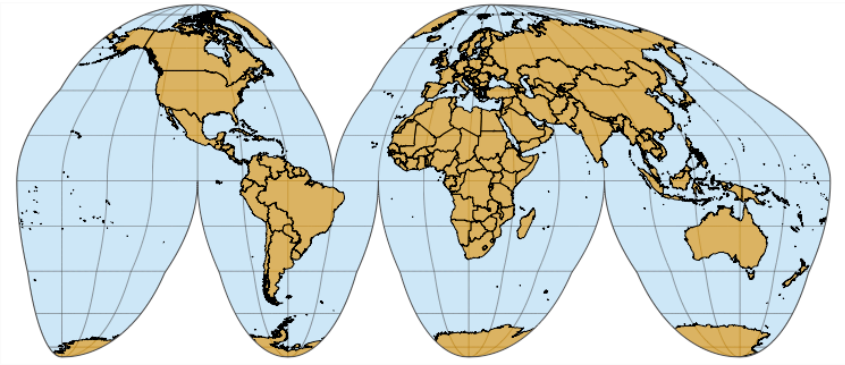


Curved Axes in Geospatial Data

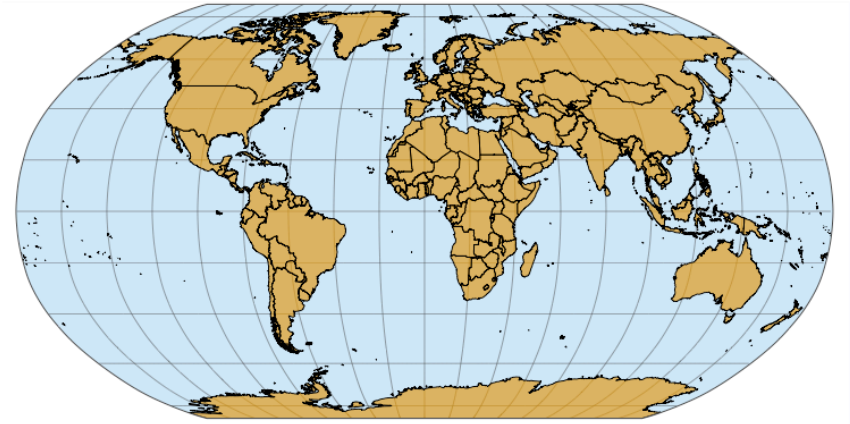
Cartesian longitude and latitude



Interrupted Goode homolosine



Robinson



Winkel tripel