

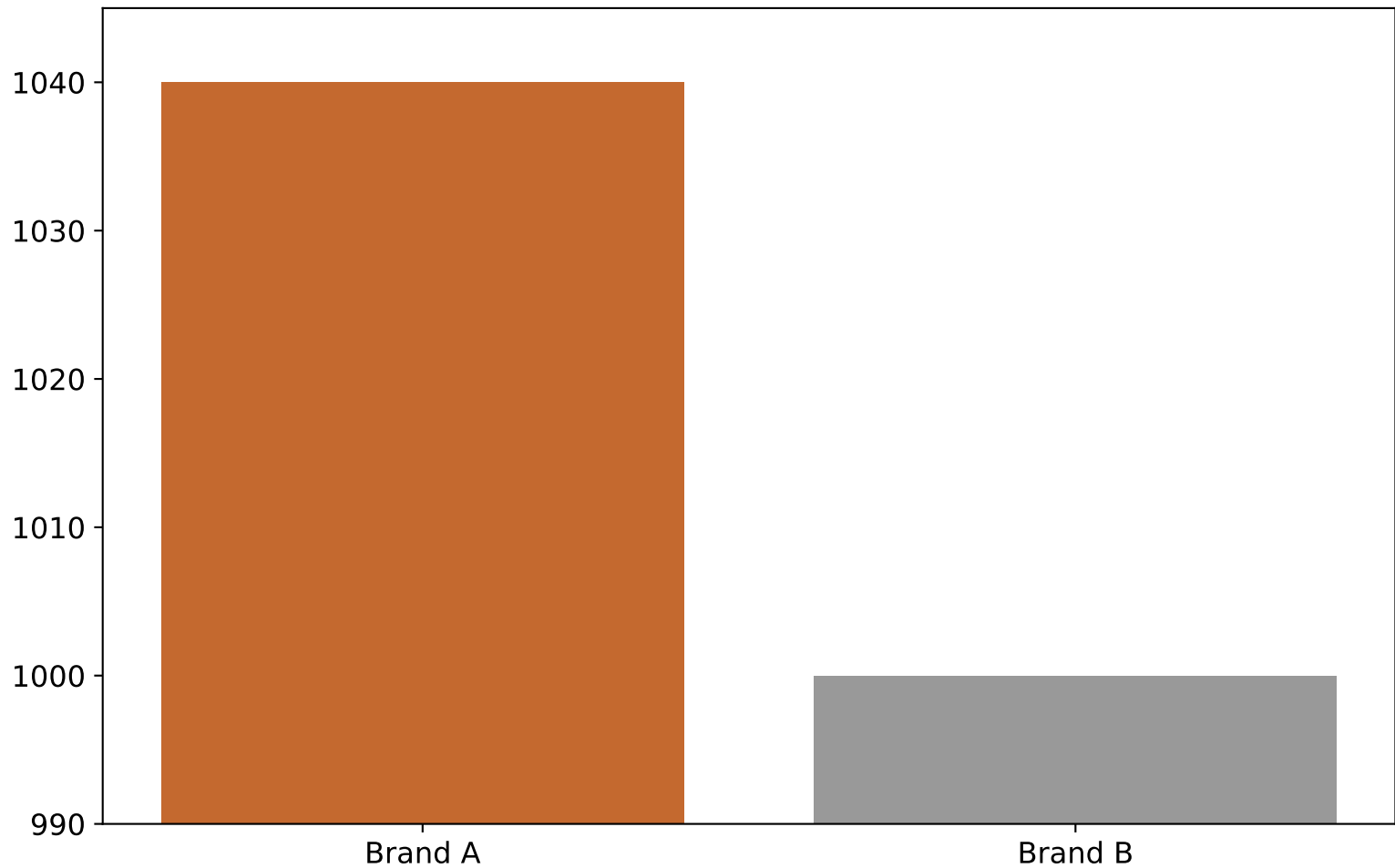
Misleading charts pack

Six fictional charts. Each one tricks the reader in a different way.

For each chart, answer three questions:

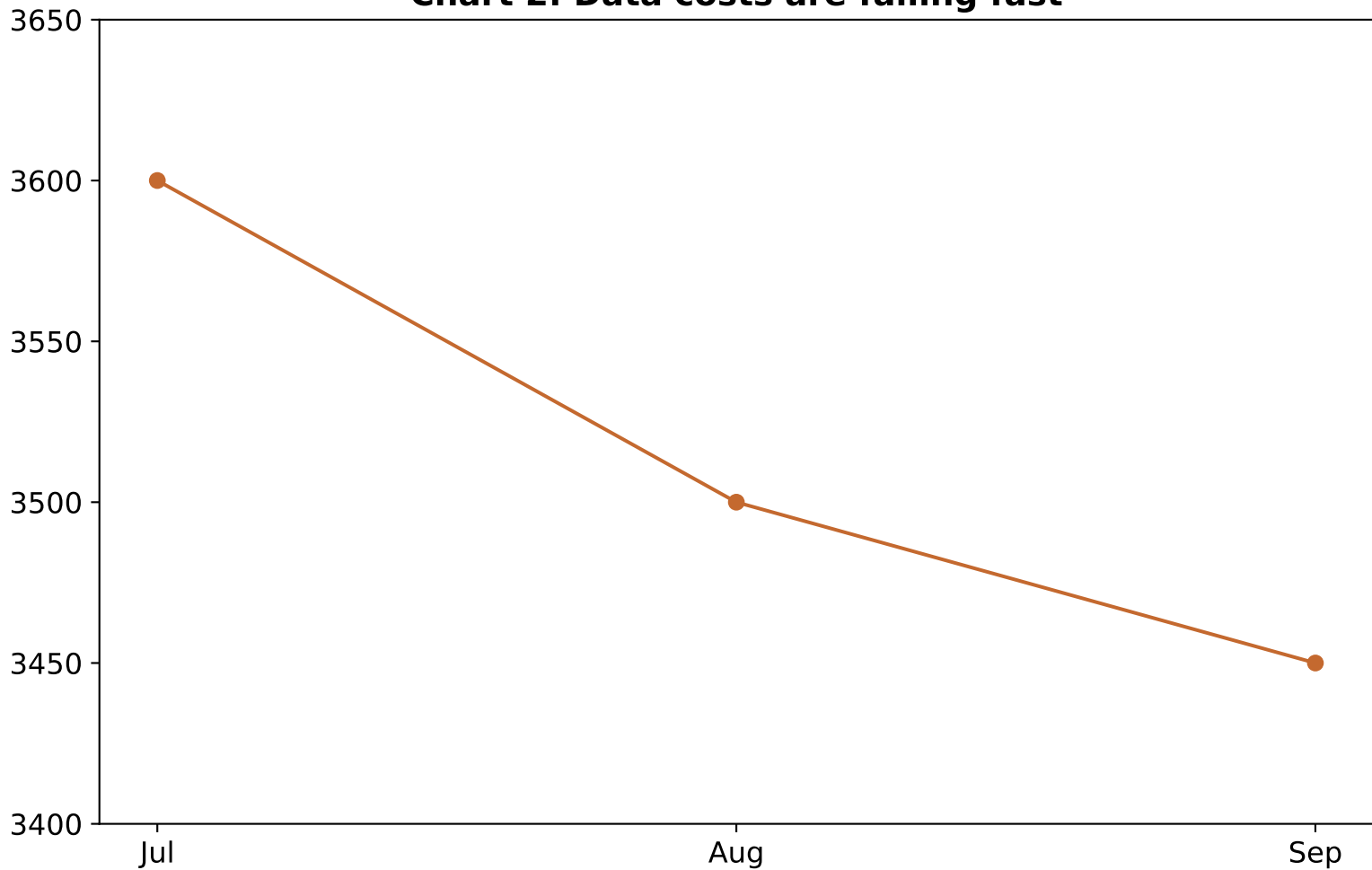
1. What does it seem to say?
2. What does the data really say?
3. What is the trick?

Chart 1: Brand A crushes Brand B in sales!



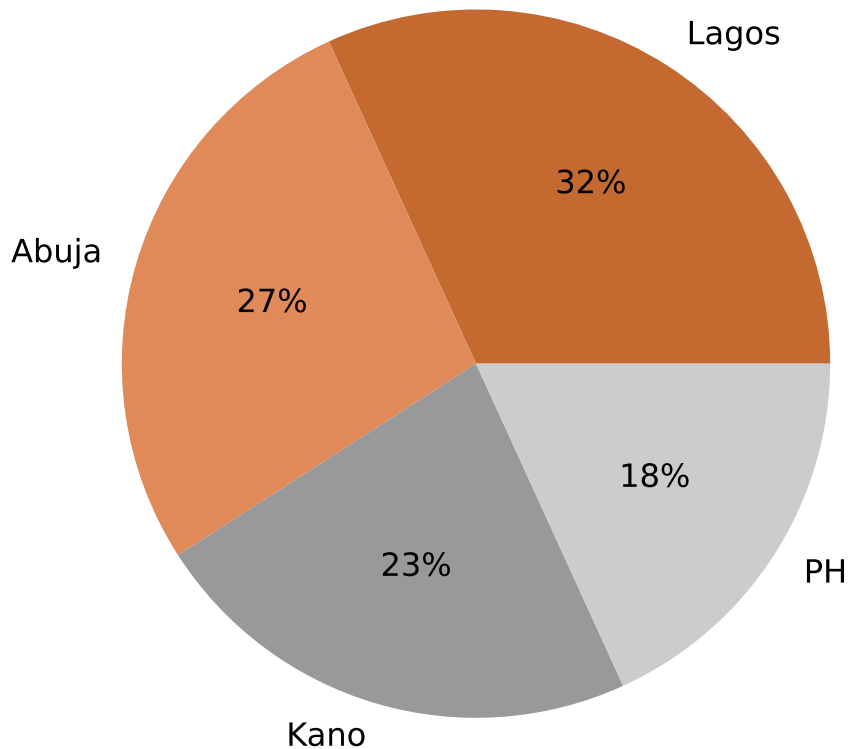
Sales in thousands of units, 2025.

Chart 2: Data costs are falling fast



Average monthly data bundle cost (N). The full year: Jan 2,400, Feb 2,600, Mar 2,900, Apr 3,100, May 3,300, Jun 3,700, Jul 3,600, Aug 3,500, Sep 3,450.

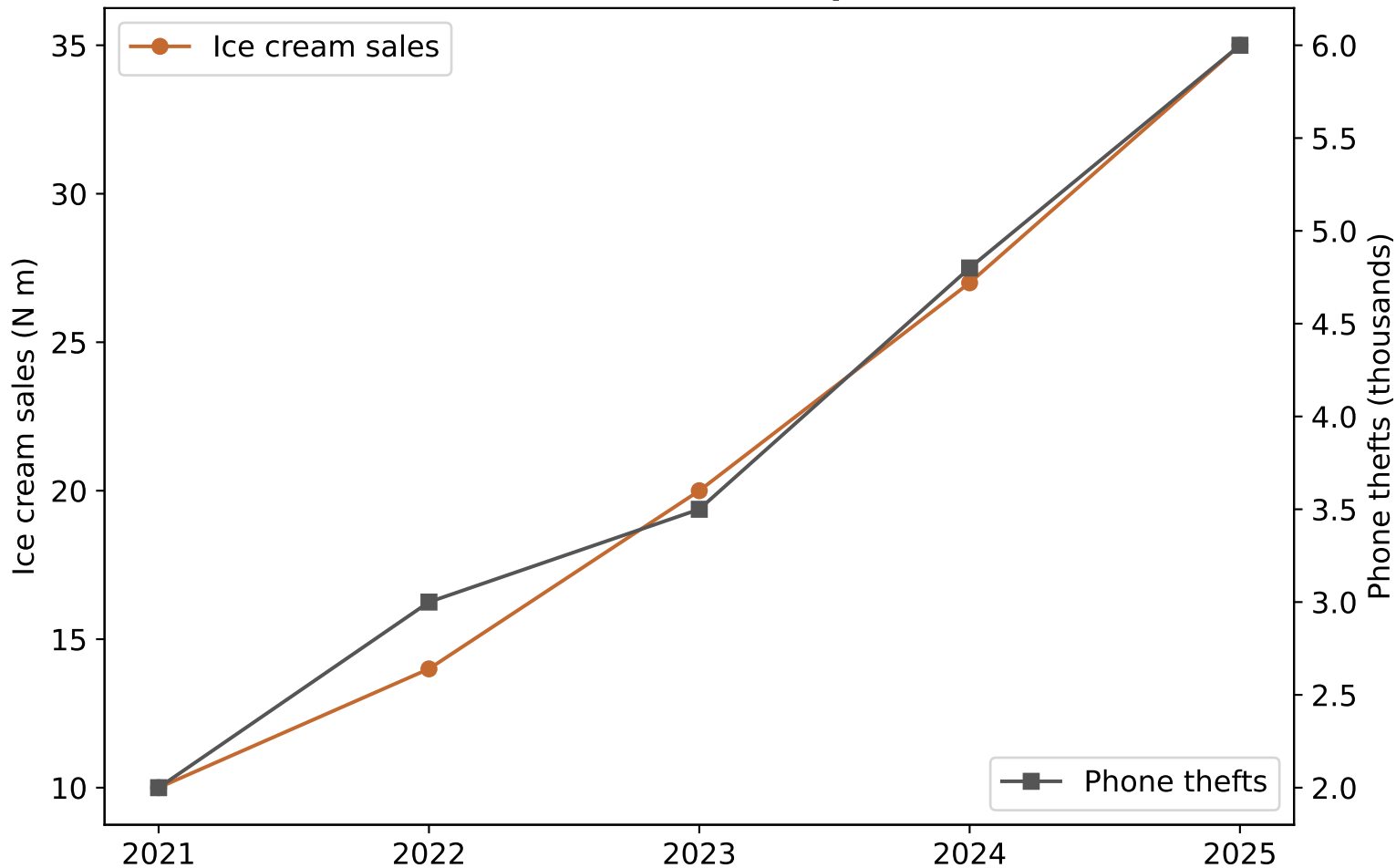
Chart 3: Customers by city



Shares of customers by city

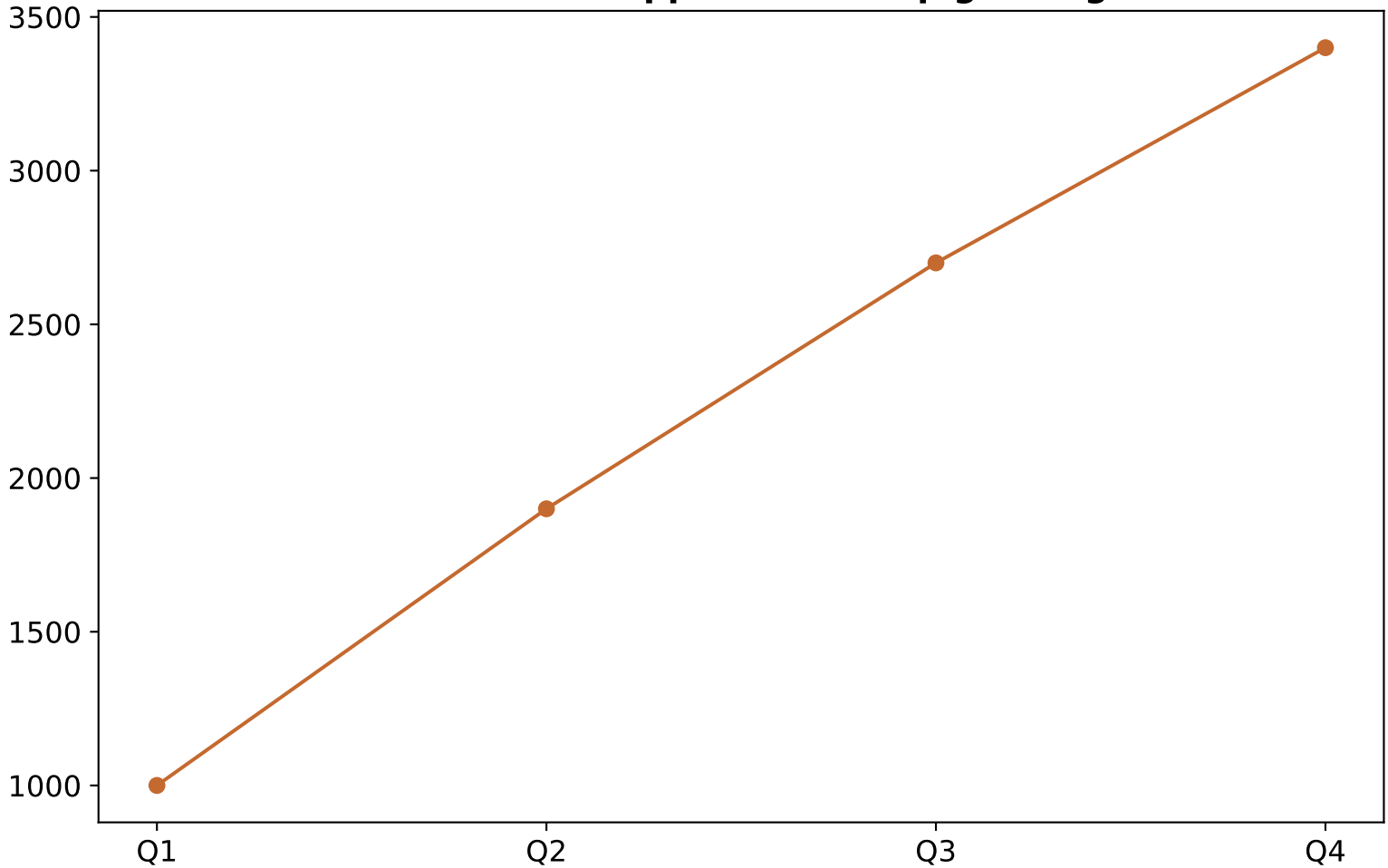
Raw counts: Lagos 35, Abuja 30, Kano 25 and PH 20 thousand customers. Lagos and Abuja come from the 2024 survey; Kano and PH from the 2025 survey.

Chart 4: Ice cream causes phone theft?



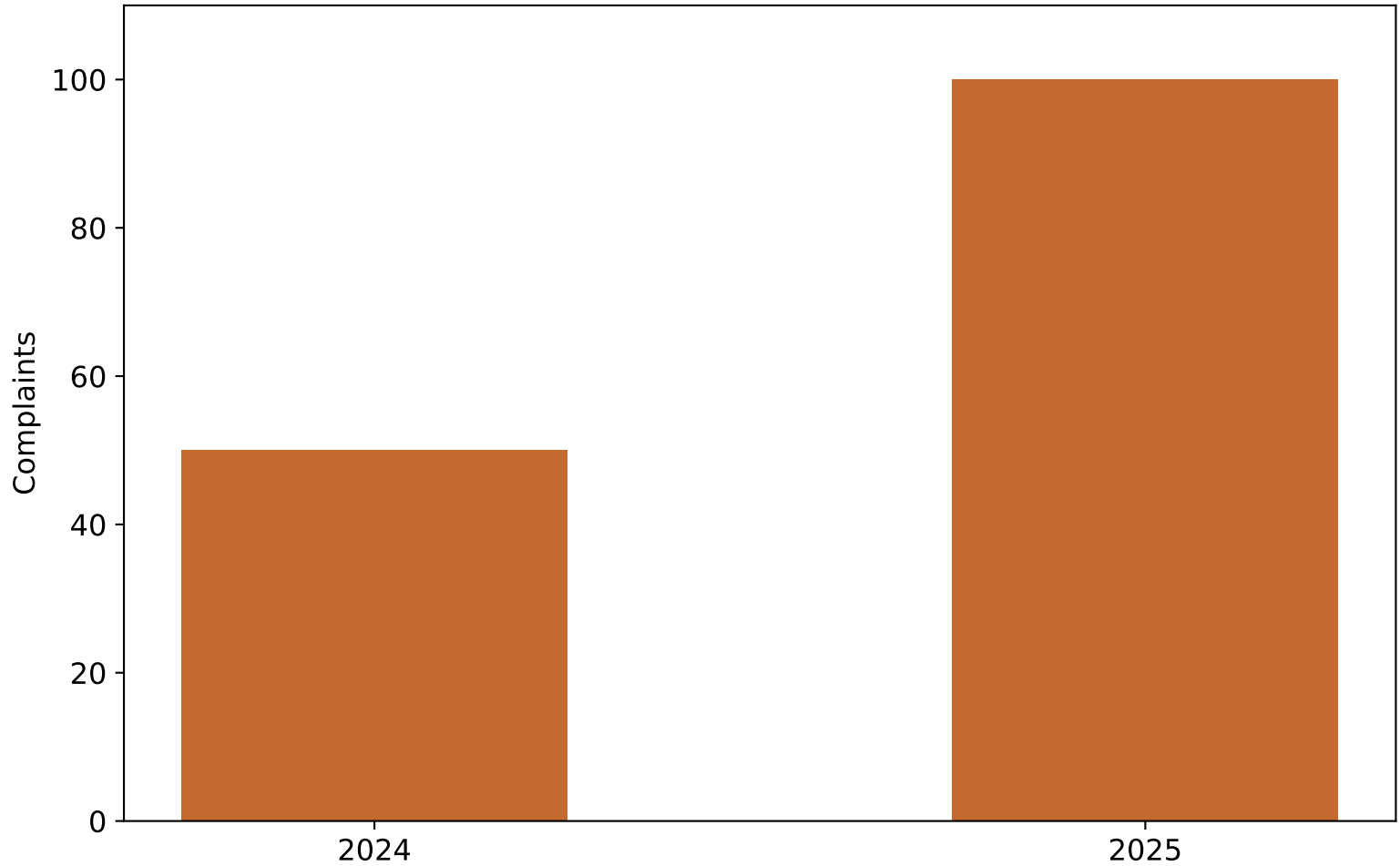
Two series rising together on two different axes.

Chart 5: Our app's users keep growing



Total sign ups ever (cumulative). Active users each quarter were 800, 900, 700 and 600.

Chart 6: Complaints doubled! Service is getting worse



Customers: 2024 had 5,000; 2025 had 20,000.

Answers for the tutor

1. Truncated axis: the y-axis starts at 990, so a 4% gap looks ten times bigger.
2. Cherry-picked dates: costs rose sharply over the year; only the last three months fell.
3. Mixed sources: a pie must show parts of one whole. Two surveys cannot be added into one pie.
4. Dual axes and correlation: both rise with hot weather and population; one does not cause the other.
5. Cumulative total: a running total always rises. Active users actually fell after Q2.
6. Missing denominator: complaints per 1,000 customers fell from 10 to 5. Service improved.