How to spot a misleading graph – Lea Gaslowitz

VOCABULARY

1. Put words/phrases in the correct column.

stabilize   rocket   plummet   reach a peak   fluctuate

increase   decrease   drop   grow   fall   rise

level off   climb   decline   plunge   recover

GO UP	GO DOWN
rocket	plummet
reach a peak	decrease
increase	drop
grow	fall
rise	decline
climb	plunge
recover	

2. Study the table and rewrite the sentences given below.

NOUNS	VERBS
There was an increase in sales. There was a decrease of 20%.	Sales increased by 20%.
There was a sharp increase.	Sales increased sharply.

a) Last year, the sales of mobile phones went up dramatically.

Last year, there was an increase in sales of mobile phones.

b) As you can see, there was a fall in the price of oil last quarter.

As you can see, the price of oil fell last quarter.

c) In 2002, we observed a rise in our production of 15%.

In 2002, our production rose by 15%.

d) There was a slight drop in profits.

Our profits dropped slightly.

3. **Write a description for the graph showing the sales (in million $) of ABC
    Ltd company.**

_____
_____
_____
_____
_____
_____
_____
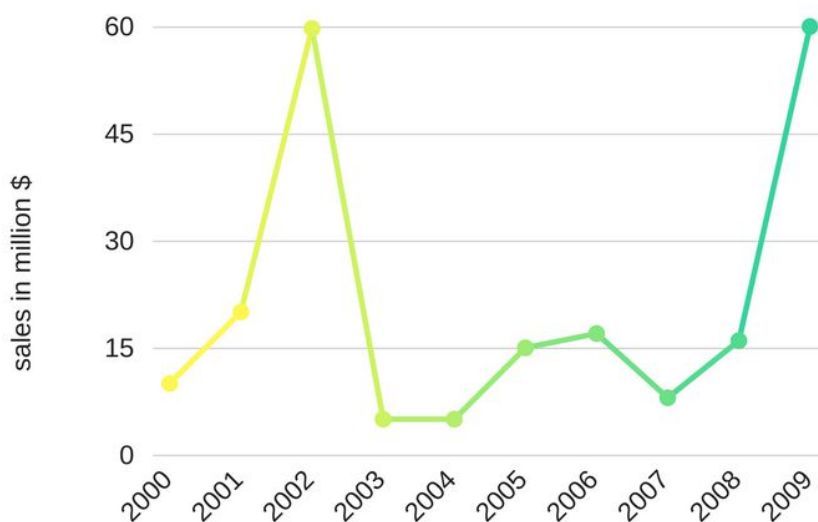
4. **Work in pairs. One of you should describe a graph and the other should
    draw that graph below.**
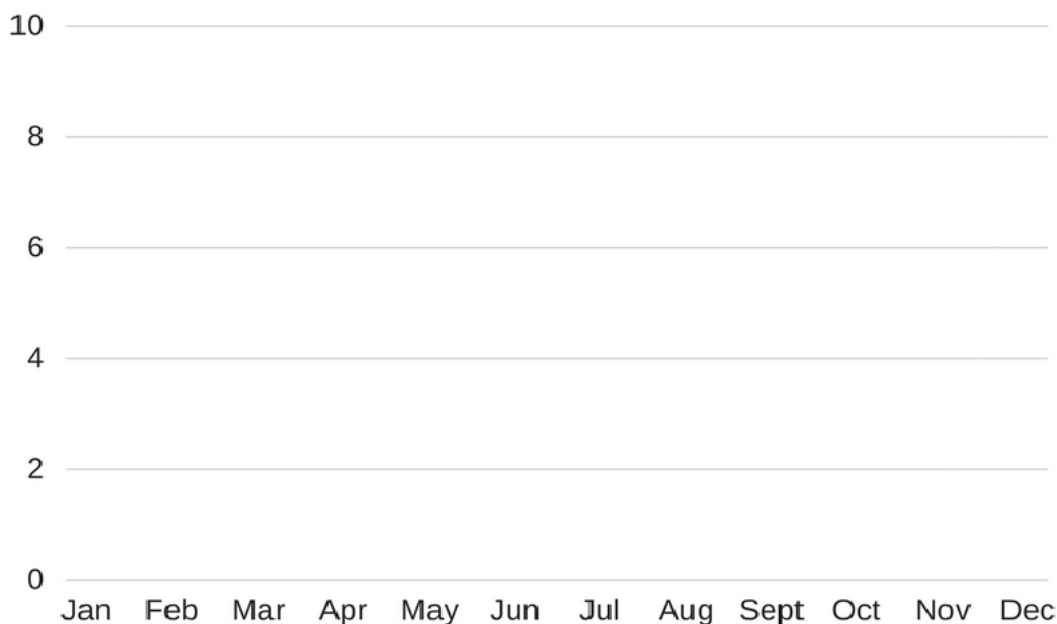
VIDEO & DISCUSSION

**5. Watch the video and complete these sentences with one word each.**

a) Yet, as it turns out, there are plenty of ways graphs can mislead and outright manipulate.

b) This is one of the most common ways graphs misrepresent data, by distorting the scale.

c) First of all, the scale is inconsistent, compressing the 15-month span after March 2009 to look shorter than the preceding six months.

d) And picking specific data points can hide important changes in between.

e) The first graph plots the average annual ocean temperature from 1880 to 2016 making the change look insignificant.

f) When they're used well, graphs can help us intuitively grasp complex data.

6. Match words which you wrote down in exercise 5 with their synonyms.

I.   complicated – complex

II. unimportant – insignificant

III. cover – hide

IV. illogical – inconsistent

V. change – distort

VI. cheat – mislead

7. Discuss:

- Do you agree with the statements that "numbers don't lie"?

- What is cherry picking according to the video?

- In which situations can we receive misleading data? Why would some people like to hide some of it? (think about the video + your own examples)

- How often do you see distorted or inconsistent graphs?

- Do you think people should be punished for misrepresenting data given to the public?

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EXERCISE 4 – GRAPHS

Annual traffic on Acme.com
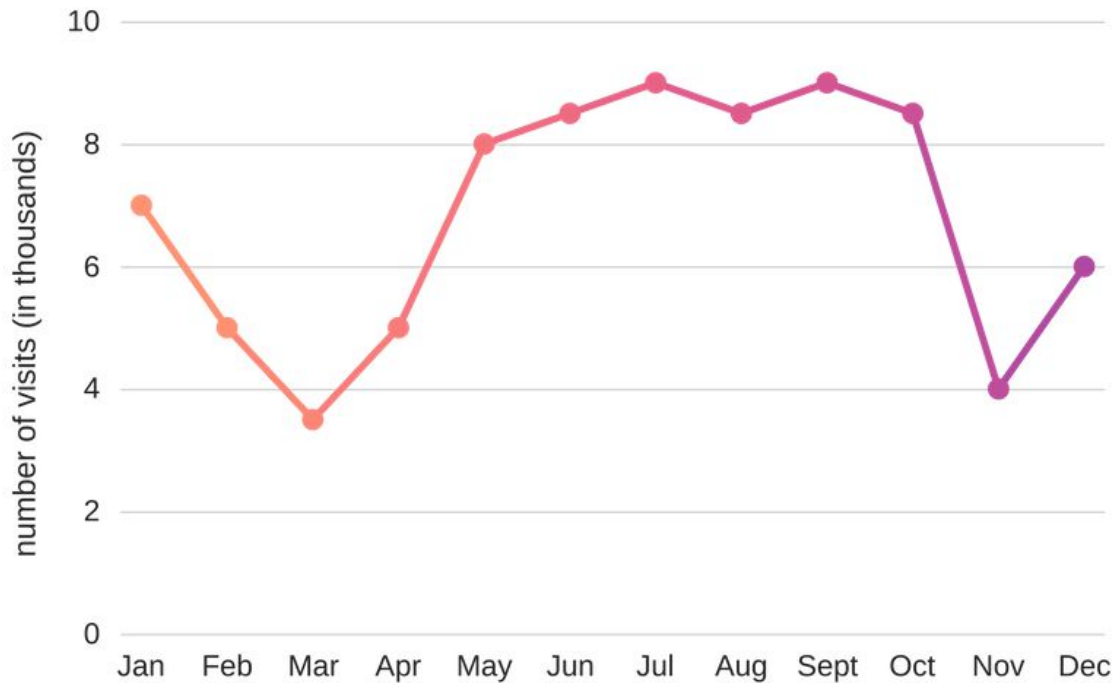
Total number of likes of Orion
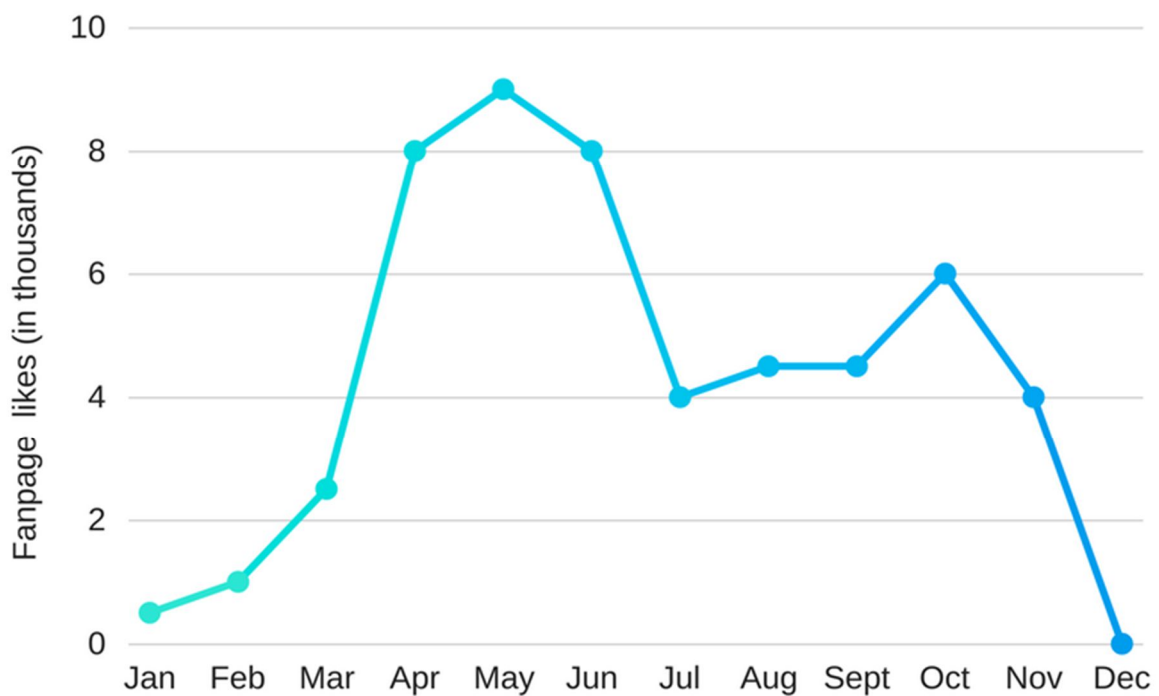
EXTRA SPEAKING TASK

Analyze these misleading graphs and tell what is wrong with them.

Gun deaths in Florida

Number of murders committed using firearms

2005
Florida enacted
its 'Stand Your
Ground' law

873

721

1990s   2000s   2010s
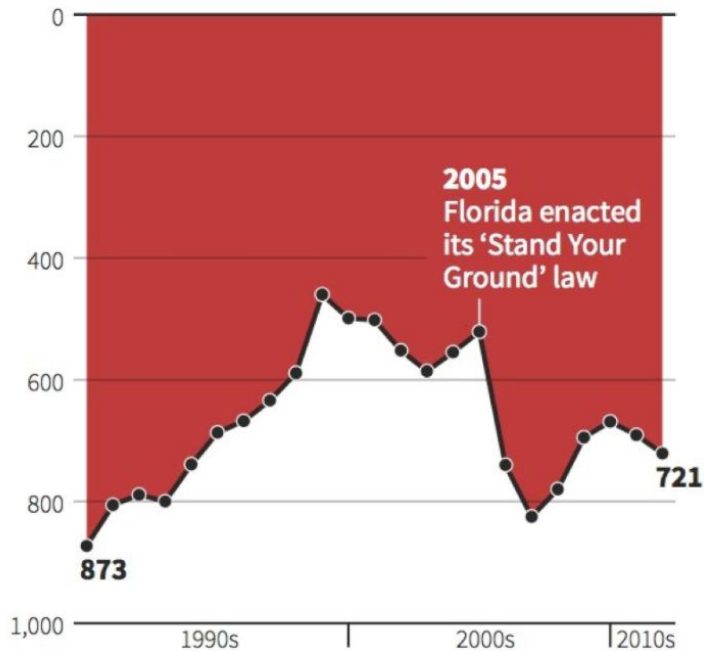
Job and Health Insurance Losses Accelerating
14,000 People Becoming Uninsured Every Day

The
Wonk Room

UNEMPLOYMENT RATE
UNDER PRESIDENT OBAMA

9.0%   8.9%   8.8%   9.0%   9.1%   9.2%   9.1%   9.1%   9.1%   9.0%   8.6%

JAN   FEB   MAR   APR   MAY   JUN   JUL   AUG   SEP   OCT   NOV

FOX NEWS radio

2011
SOURCE: BUREAU OF LABOR STATISTICS