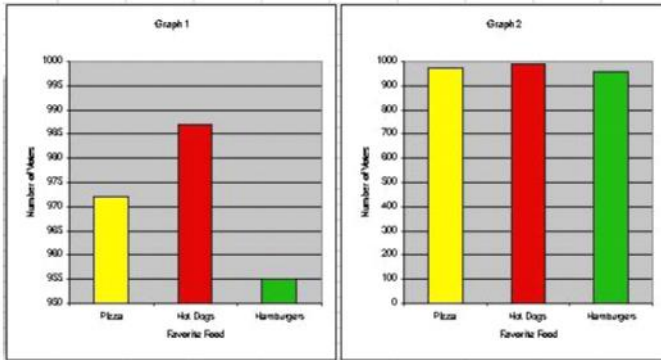


1.2 Misrepresenting Data

There are many ways that a graph can be misleading:

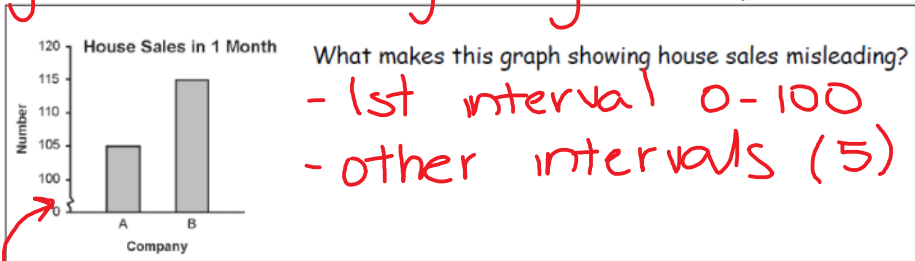
P Daddy surveys a number of people to find out their favorite fast food. He draws the two graphs below. Do they show the same data? Why do they look different?



They look different because the vertical scale is different

Which of the graphs is misleading? What makes the graph misleading?

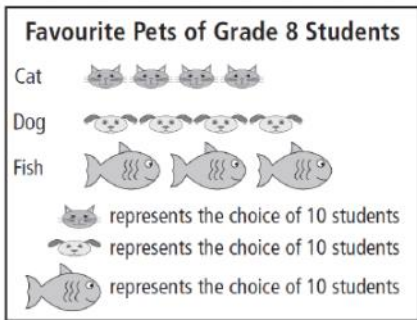
Graph #1 because it makes the difference in heights look very large # intervals are not the same size



What makes this graph showing house sales misleading?

- 1st interval 0-100
- other intervals (5)

"break in the graph"

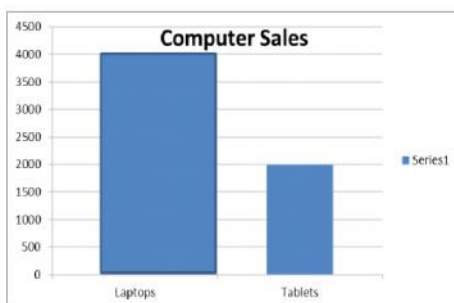
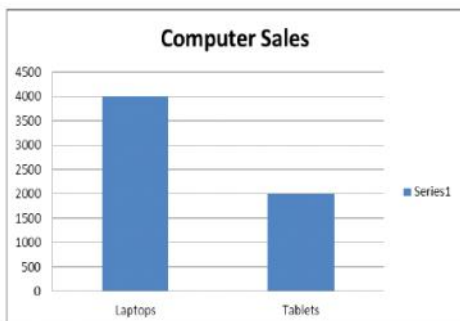


What is the favourite pet of grade 8 students?

dogs = cats are equally popular

How does this graph misrepresent the answer?

The pictures are different sizes
5 "distorted visual"



Do these two graphs show the same information?

yes

Do these two graphs show the same information?

yes

How is one of the graphs misleading?

"distorted visual" The bars are different widths



What is the cost of maintaining a bike in:

a) 1997

\$20

b) 2007

\$40

Does this graph make it look like the 2007 cost is only double the 1997 cost?

NO

How many times bigger does the 2007 cost look compared to the 1997 cost?

It looks 4x bigger

Redraw the graph so that it is not misleading

