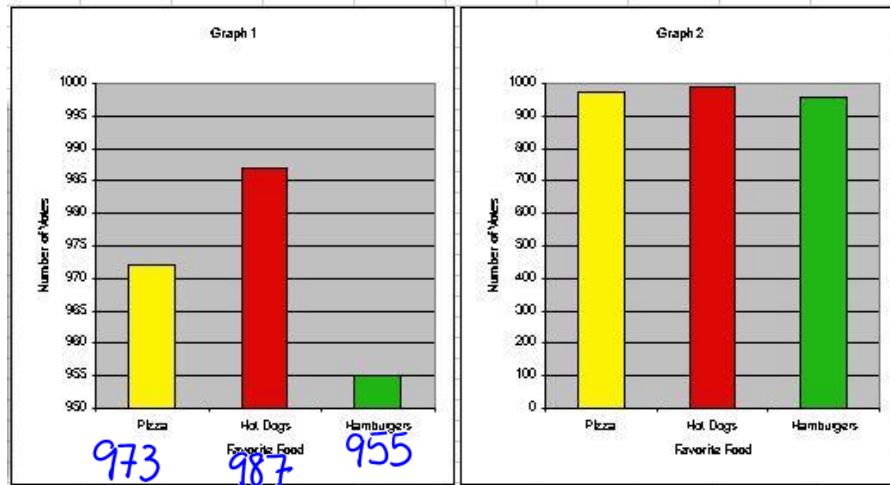


Date: _____

1.2 Misrepresenting Data

There are many ways that a graph can be misleading:

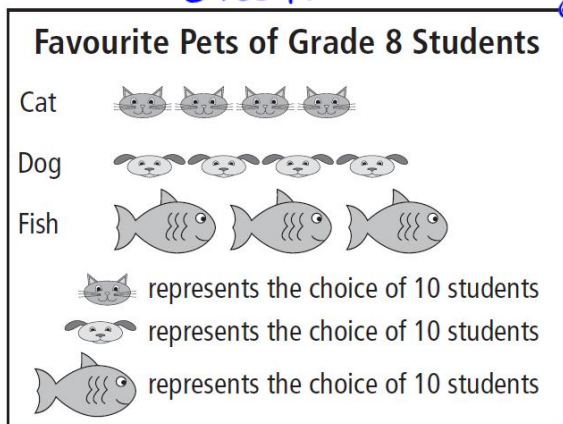
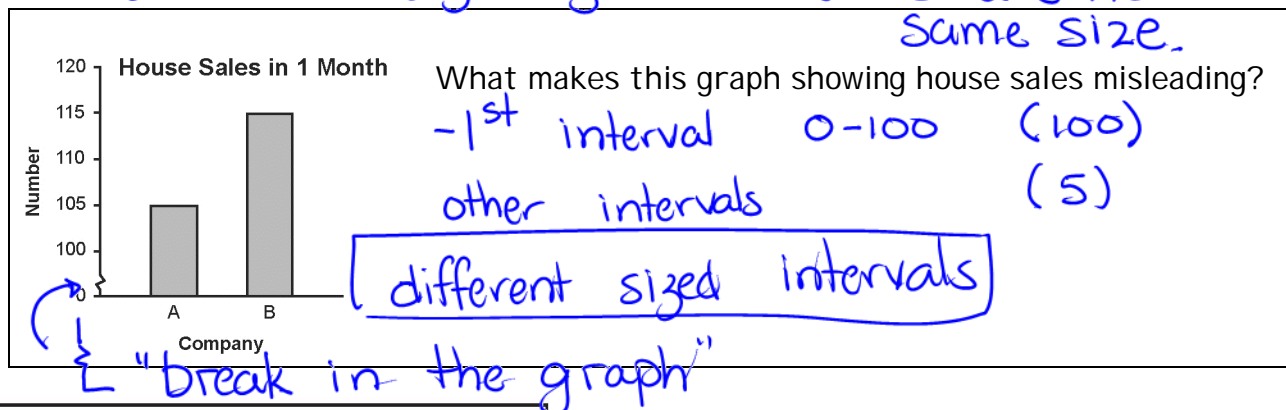
P Daddy surveys a number of people to find out their favorite fast food. He draws the two graphs below. Do they show the same data? Why do they look different?



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.



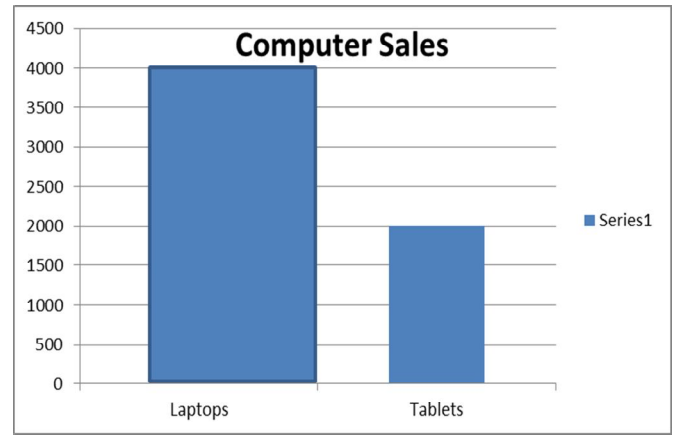
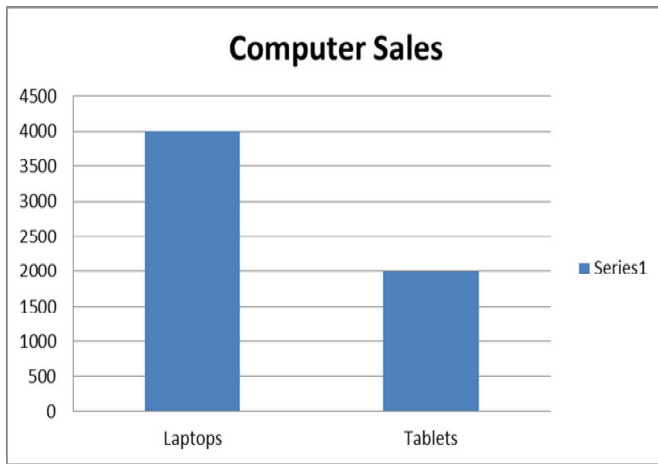
What is the favourite pet of grade 8 students?

dogs and cats are equally popular.

How does this graph misrepresent the answer?

the pictures are different sizes.

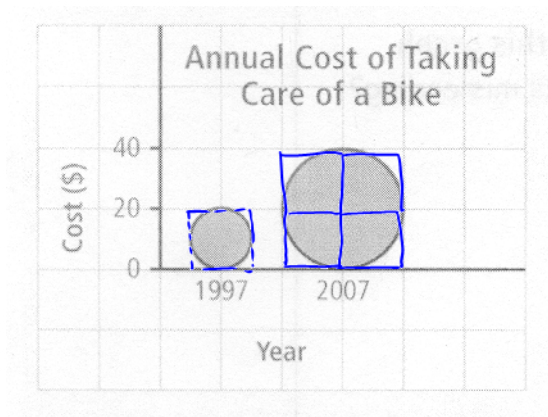
"distorted visual"



Do these two graphs show the same information? *yes*

How is one of the graphs misleading?

"distorted visual". The bars are different widths in the second graph.



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

