



Milking graphs for all they are worth!

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The complete presentation will be posted at

www.sabinin.info/conferences.html

Plan for the workshop

- 4 activities
 - Which vase? Which graph?
 - Graph to graph?
 - Guess that place!
 - Filling bathtubs!

What are graphs good for?

- Let's Google it!



Dj Impure

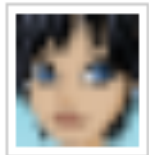
Resolved Question

[Show me another »](#)

What is The importance of graphs in everyday life?

4 years ago

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my two
cents

Best Answer - Chosen by Voters

I am not trying to be a smart ____, but I have lived my whole life just fine without ever needing to use a graph (other than at school). So, to me... they have no importance at all.

4 years ago

Which vase? Which graph?

- Activity from scratch
 - Each group gets a vase, color-water, a ruler, a small cup, and poster graph paper.
 - Groups graph height vs. volume of water
- The big question: Which graph came from which vase?



Here are our vases ...

- Pull out the **green** cards from Envelope #1.
- For each of the vases, sketch the graph of volume of water (horizontal) to height of water (vertical)



Vase 1



Vase 2



Vase 3



Vase 4



Vase 5



Vase 6



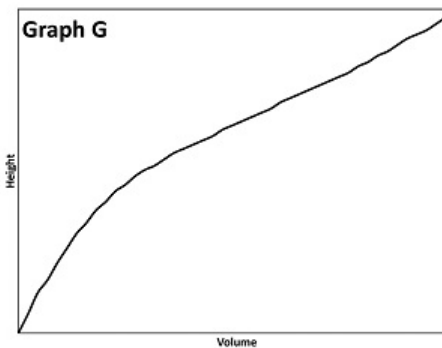
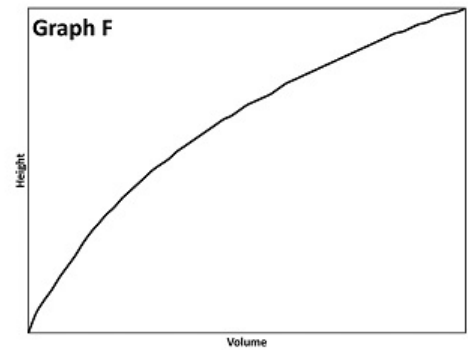
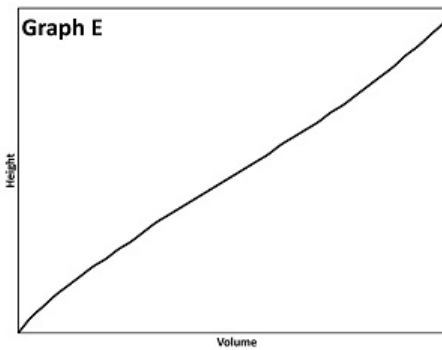
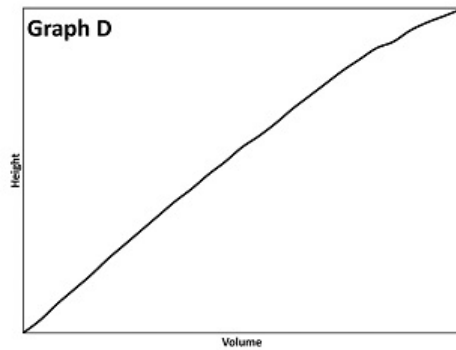
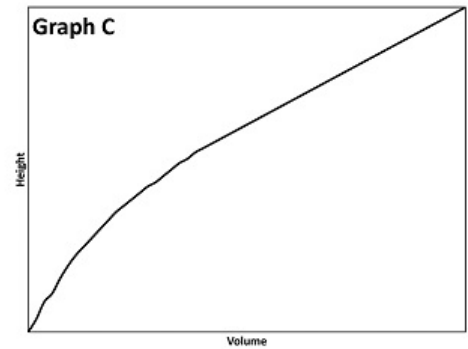
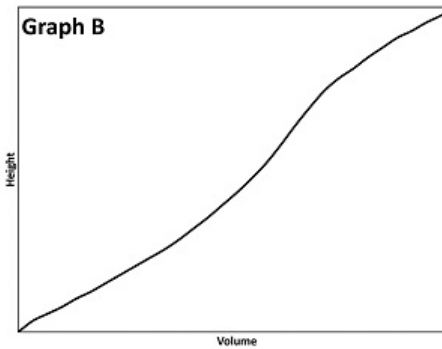
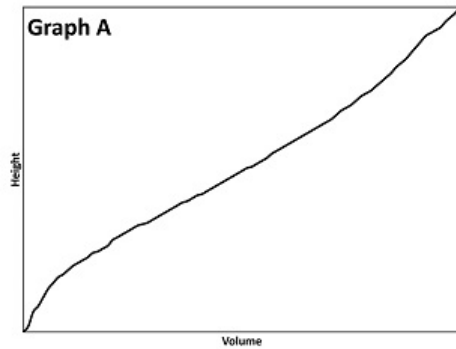
Vase 7

Decision time ...

- What are some of the decisions that the students will have to make about
 - Collecting data?
 - Graphing data?

Now, the graphs ...

- Pull out the **blue** cards from Envelope #1.

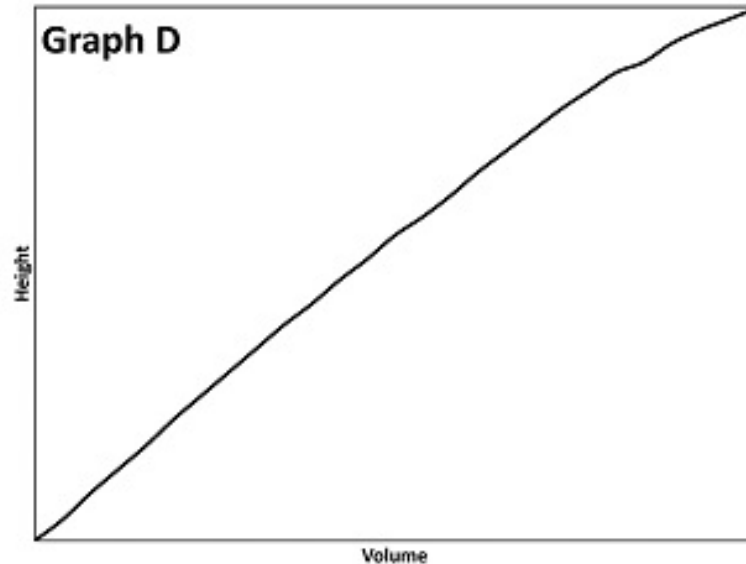


Which graph comes from which vase?

For example:

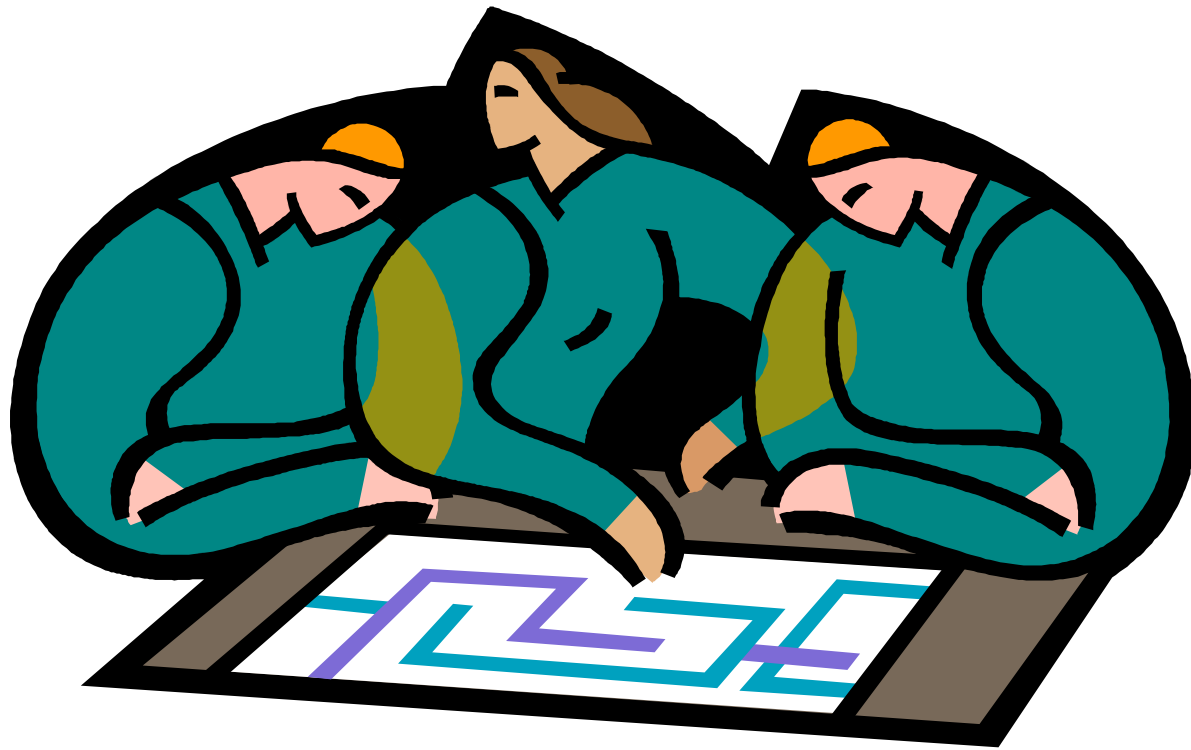


Vase I

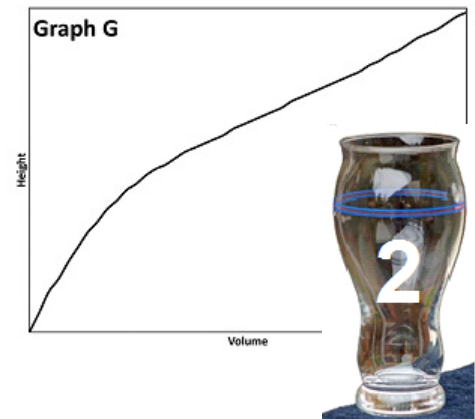
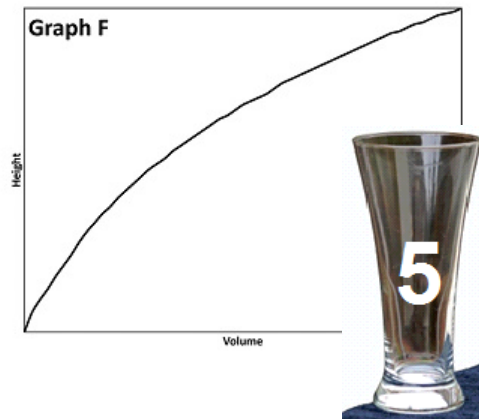
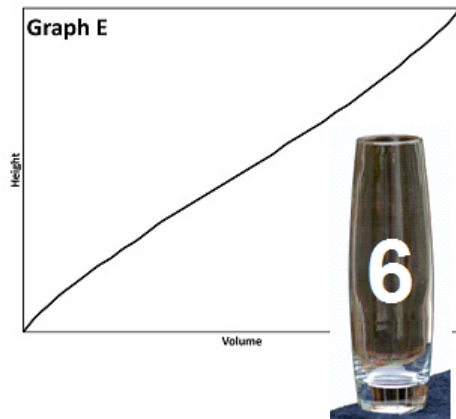
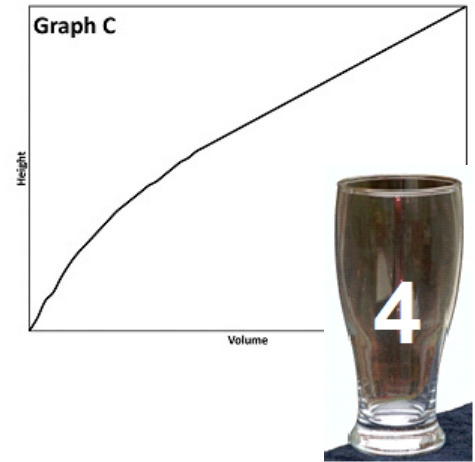
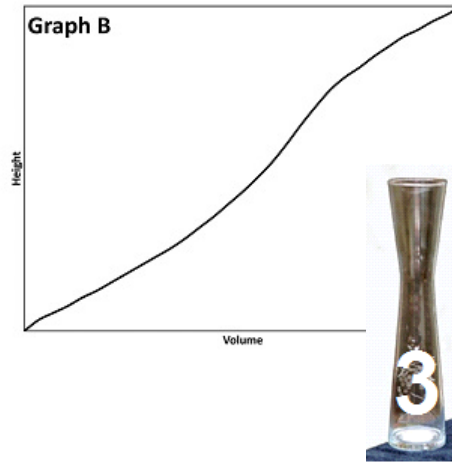
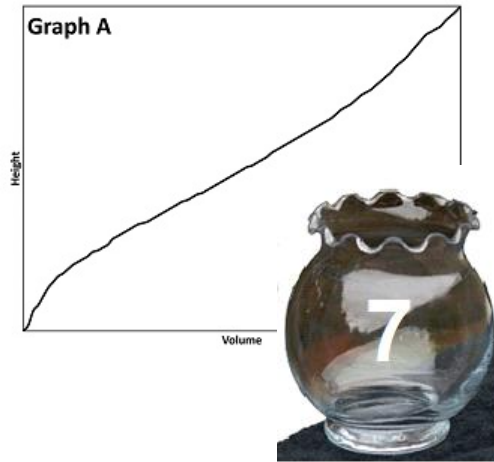


Let the matching begin!

Go ahead, match'em up!



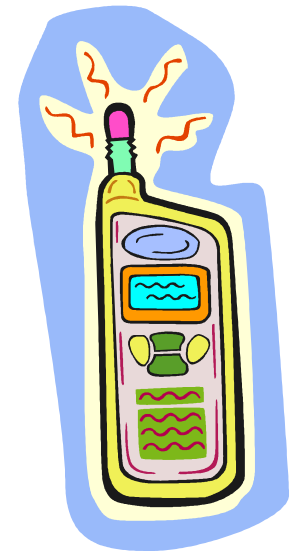
How did we do?



We got some data from teachers:

Are you satisfied with your cell phone provider?

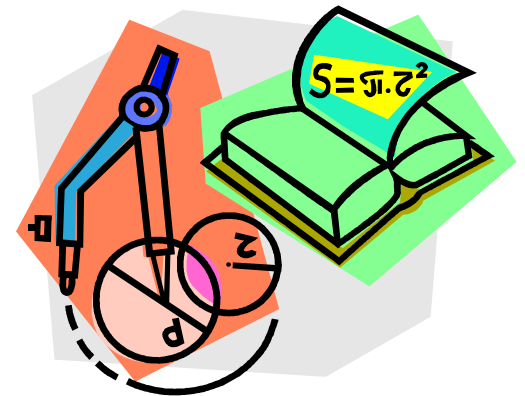
- 1 – extremely dissatisfied
- 2 – somewhat dissatisfied
- 3 – neutral
- 4 – somewhat satisfied
- 5 – extremely satisfied



- Your group will get either a *pie chart* or a *bar graph* of these data

We got some data from students:

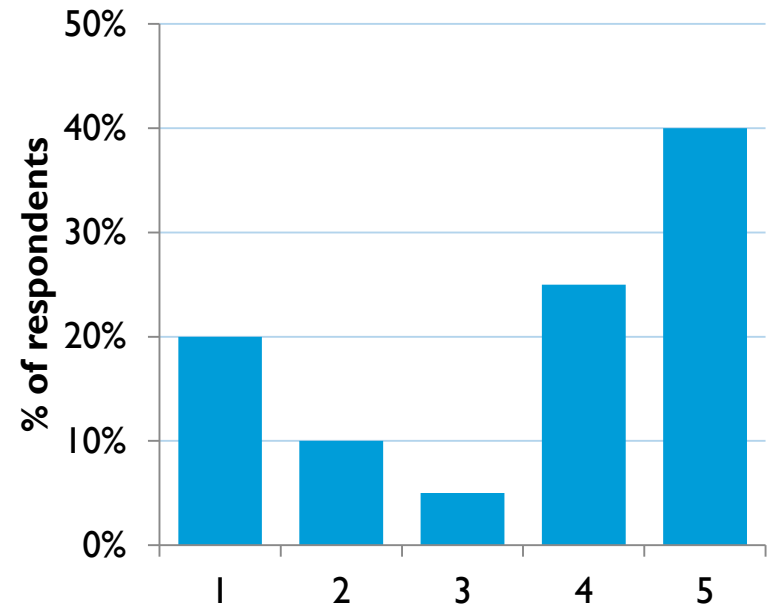
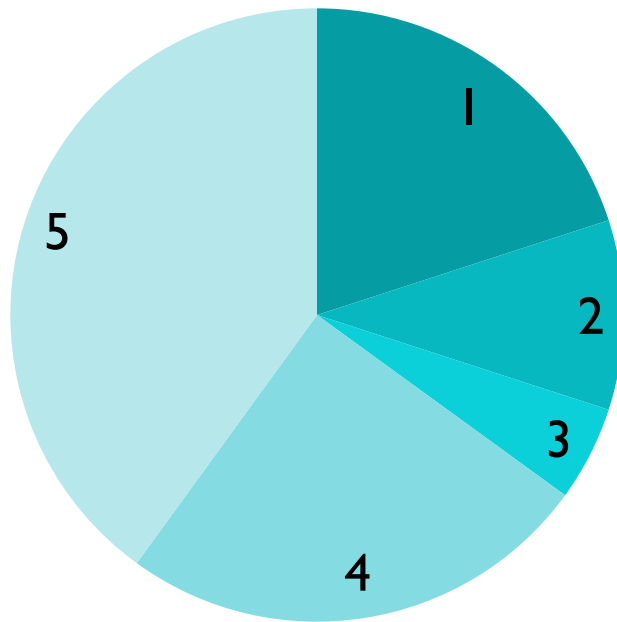
- We asked a group of 7th grade students to take a test on geometry.
- We recorded the total score (out of 100) for each student
- Your group will get either a *box-and-whisker plot* or a *histogram* of the data



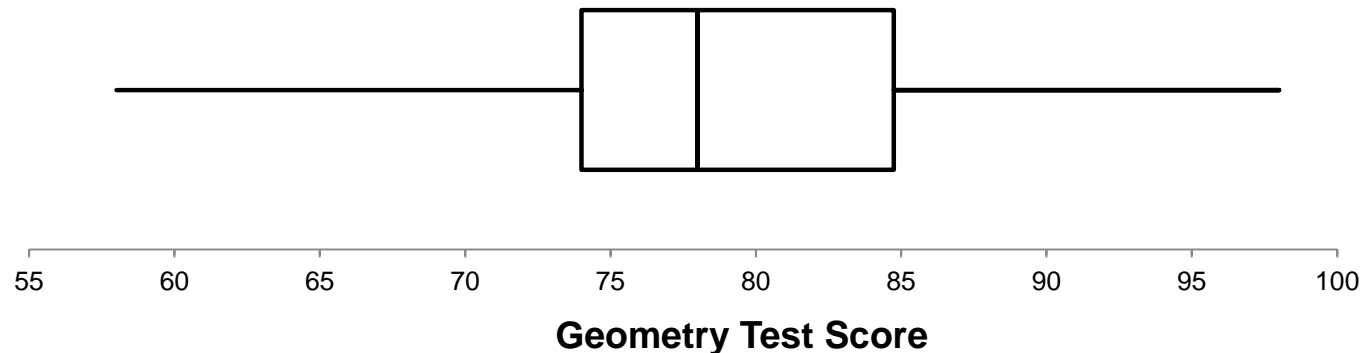
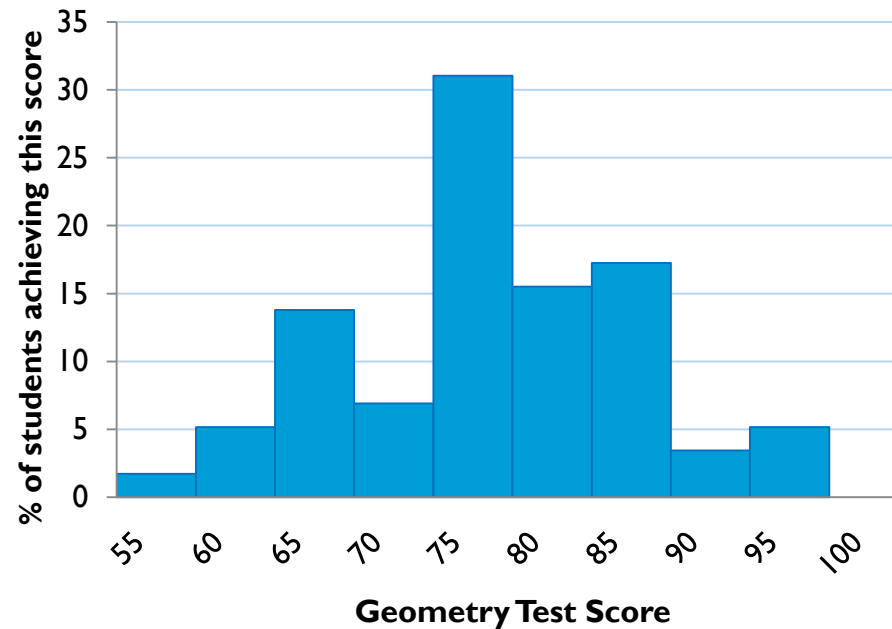
Create the other graph

- Create the other graph!
 - Double check that the mean, median, mode, and range are the same for the two graphs.
- What can you calculate from one graph that you cannot from the other?

Revealing the graphs for “Satisfaction with cell phone provider”



Revealing the graphs for “Geometry in 7th grade”



Guess that Place

- Think of a common public place and the data associated with it.
 - For example:
 - Place: kids toy store
 - Associated data: monthly number of shoppers over a full year
- Graph what you think the data should look like.
- Label your graph with as much information as possible without giving it away.
- Can other groups guess what place you have in mind?!



Source of activity unknown

Let the (educated) guessing begin!



“When can I stop making wild guesses and start making educated guesses?”

Filling bathtubs!

- Over a ten-minute period, the depth of water changes in a bathtub. Sometimes the faucet is turned on. At other times the drain plug is pulled, and the water drains out. The bathtub is 6 feet long by 3 feet wide by 1.5 feet deep, and a gallon of water is the same as 231 cubic inches. The x-axis represents the time in minutes, and the y-axis represents the amount of water in gallons.

Source of activity unknown

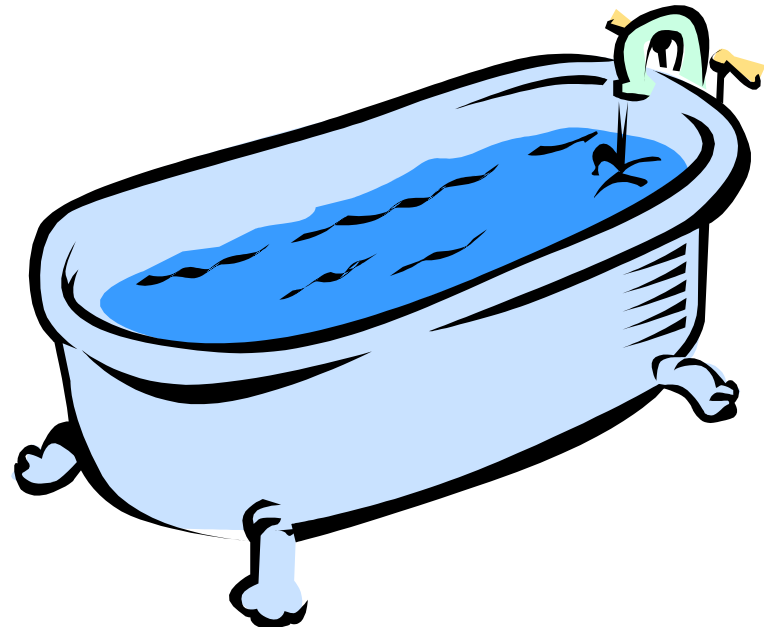
Envelope #2

10 bathtub-filling situations

- 10 tables of values
 - Yellow cards
- 10 descriptions
 - Pink cards
- 10 graphs
 - Blue cards

For a challenge

- 10 equations
 - Green cards



Go ahead, match'em up!



Contact us

with questions or comments:

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The complete presentation will be posted
at www.sabinin.info/conferences.html



"ANY QUESTIONS?"