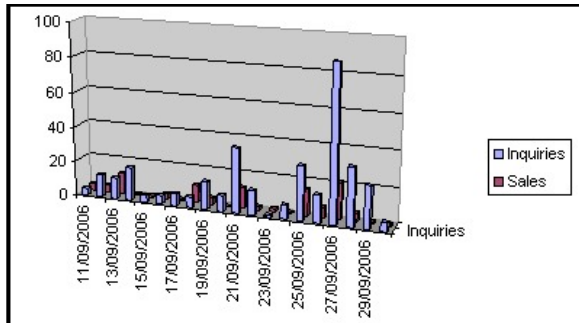


Graphing

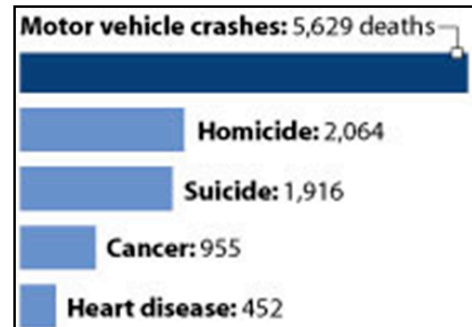
Obj. 3.6: Create a clear, accurate, and compelling graph to depict data.



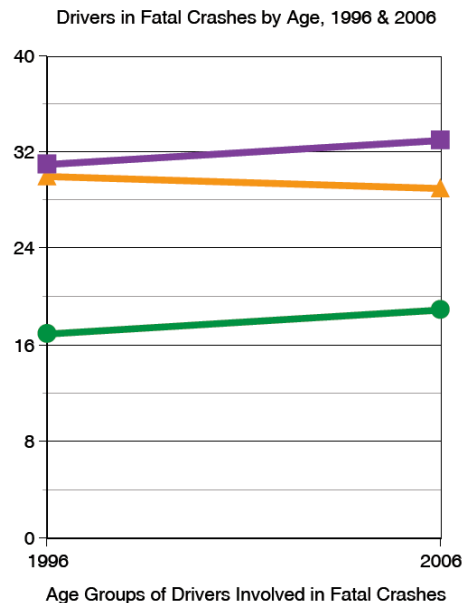
Examine each graph below and write down any problems you notice. These could be errors, a necessary component that is missing, confusion in how data is presented, or weaknesses in the set-up of the graph.



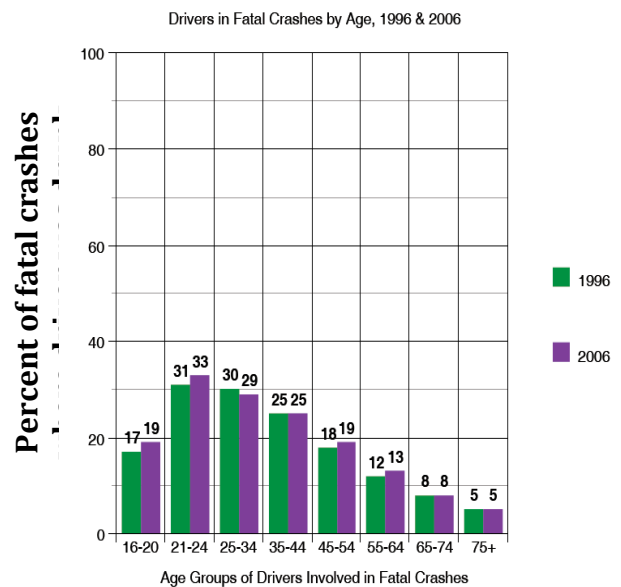
1) Problem(s):



2) Problem(s):



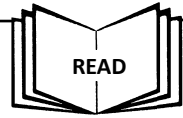
3) Problem(s):



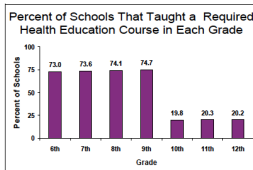
4) Problem(s):

DISCUSS

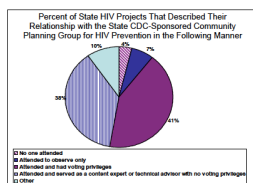
With a partner, share the problems you found with each of the graphs.



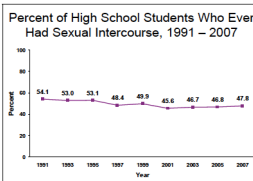
Data tells a story; sometimes these stories can be quite interesting! Read the CDC handout “Using Graphs and Charts to Illustrate Quantitative Data. Then, for each of the example graphs in the handout, tell the story. Focus on the purpose and big conclusion.



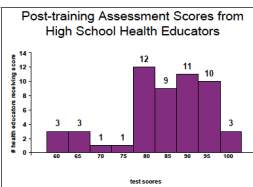
Graph 1:



Graph 2:



Graph 3:



Graph 4:

NEW INFO

Graphs must be clear, accurate, and compelling in order to tell the story of the data. Read the following guidelines on creating a clear, accurate, and compelling graph.

If your graph is not CLEAR, you lose your credibility!

- 1) Choose the relevant data to graph
- 2) Choose the best type of graph to show data (line, bar, pie, double bar, scatter plot)

If your graph is not ACCURATE, everyone is lost!

- 3) Create a TITLE that explains the data
- 4) Add label (with units) on the X-AXIS
- 5) Add label (with units) on the Y-AXIS

If your graph is not COMPELLING, nobody cares!

- 6) Choose a strategic scale to use most of the graphing space, but do not stretch or shrink your scale so that it misrepresents your data.
- 7) Graph the data, using signals (ex: colors, patterns) to show differences in the data

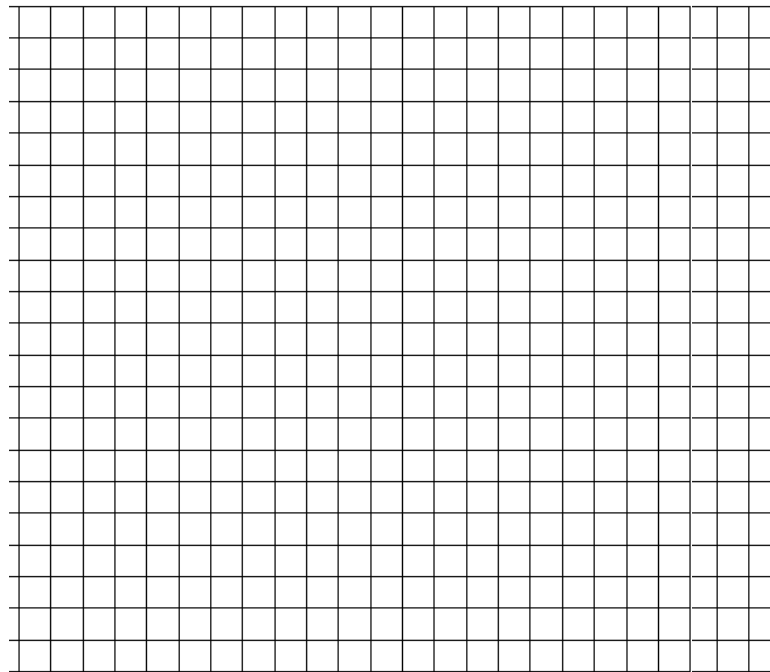


Examine the data in the table below. Follow the steps listed on the previous page to create an accurate, clear, and compelling graph (you decide on the best type!) to show differences in percent of total drivers involved in fatal crashes with BAC .08 or higher for different Age Groups for the year 1996 and 2006.

Drivers in Fatal Crashes With a BAC of .08 or Higher, by Age, Gender, 1996 and 2006

Total Drivers						
Drivers Involved in Fatal Crashes	1996			2006		
	Total Number of Drivers	BAC .08 or Higher		Total Number of Drivers	BAC .08 or Higher	
		Number	Percent of Total		Number	Percent of Total
Total	57,001	12,348	22%	57,695	12,491	22%
Drivers by Age Group (Years)						
16-20	7,824	1,359	17%	7,286	1,350	19%
21-24	6,205	1,950	31%	6,454	2,145	33%
25-34	12,889	3,837	30%	11,223	3,259	29%
35-44	10,955	2,765	25%	10,310	2,595	25%
45-54	7,127	1,272	18%	9,201	1,746	19%
55-64	4,237	512	12%	5,864	753	13%
65-74	3,319	275	8%	3,022	229	8%
75+	3,068	145	5%	2,954	139	5%
Drivers by Sex						
Male	41,376	10,240	25%	41,975	10,078	24%
Female	14,850	1,963	13%	14,655	2,168	15%

Source: CDC





Trade graphs with a partner and use the following checklist to evaluate their graph. Then write additional comments below. Try to come up with at least one complimentary comment and one constructive comment.

Type of Graph: _____

Trade graphs and check that your partner's graph meets each standard:

- ☐ descriptive title that explains data clearly
- ☐ x-axis label is clear & includes units
- ☐ y-axis label is clear & includes units
- ☐ Scales begin at 0 & have even intervals
- ☐ Maximum scale allows graph to fit entire space
- ☐ Double bars are grouped and evenly spaced
- ☐ Colors or shading differentiate data

COMMENTS:



Find another set of data that interests you and only exists in table form. Graph the data (you may choose to graph all of it or just smaller subset) in the space below.

