(4.6) Understanding Indices

Gasoline Prices (¢/L)		
2006	January	95.0
	March	93.3
	May	104.6
	July	109.7
	September	89.7
	November	86.5
2007	January	87.1
	March	102.4
	May	111.5

Gas Price as Percent
100
98.2

This table gives the bi-monthly gas prices in cents/Litre 2006-2007.

Graph the data on the scatter plot below:

Calculate the gas price as a percent of the price in January 2006.

Ex. March '06 $= \dfrac{93.3}{95} \times 100\% = 98.2$

Then graph the percents on the graph below in a different colour

Compare the two graphs.
Is there information that each graph shows that the other does not? If so, what type of information?

Create a question about the increase/decrease of gas prices that could be answered using the graph of gas as a percent.

Price Indices

Definition:

Uses:

Examples:

Example: Use the following CPI graph to answer the questions below.

Consumer Price Index (CPI)

CPI (2002 = 100)

120
110
100
90
80
0

1990   1994   1998   2002   2006

Year

a) *What is the base year for this CPI?*
        The base year is when CPI is _____.
        That occurs in the year _____.

b) *When was the cost of the basket goods 110%*
    of the base cost?
            The year _____.

c) *What was the CPI in 1993? What does this mean?*
        The CPI was _____ in 1993.
        This means that the cost of basket goods in 1993 was _____ of the base cost.

d) *Describe the change in CPI between 1990-1991. Why is this change significant?*
        The CPI changed from _____ to _____. This is a change of _____.
        This is the _____ change in any _____ period.

e) *What is the overall trend in CPI during this time frame?*
        The CPI is _____ overall.
        This means that Canadians are spending _____ for the same basket goods.

f) *Calculate the average annual rate of increase for CPI.*
        Total increase= $\dfrac{totalincrease}{numberyears}$ =

g) *Use your answer in f to predict the CPI in 2015.*