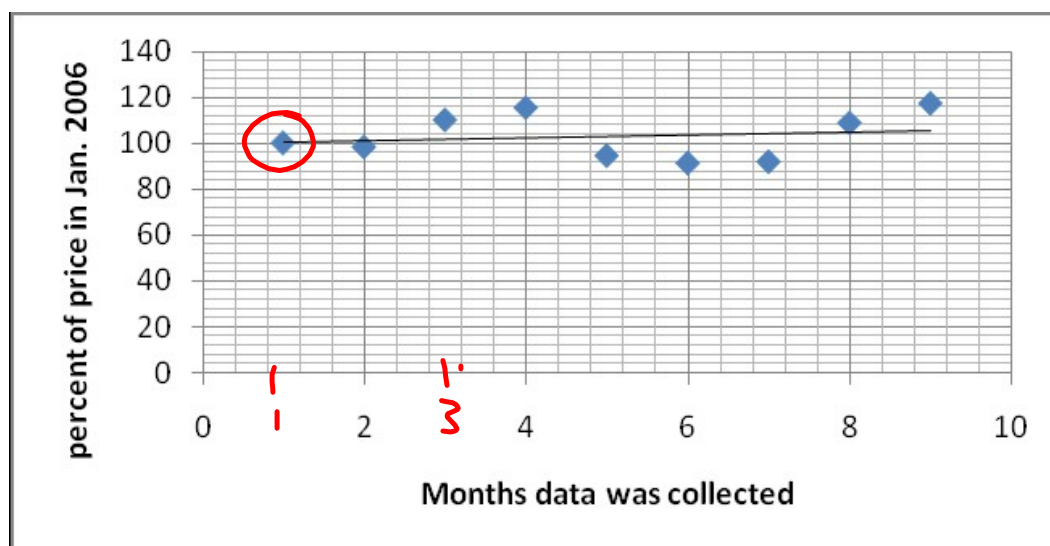


Gasoline Prices (cents/L)			% of Jan. 06
2006	Jan	95	$\frac{95}{95} \times 100 = 100$
	March	93.3	$\frac{93.3}{95} \times 100 = 98.2$
	May	104.6	$\frac{104.6}{95} \times 100 = 110.1$
	July	109.7	115
	Sep.	89.7	94.4
	Nov.	86.5	91
2007	Jan.	87.1	91.6
	March	102.4	107.7
	May	111.5	117.3

In the third column of the chart express the price a percent of the price in Jan. 2006.

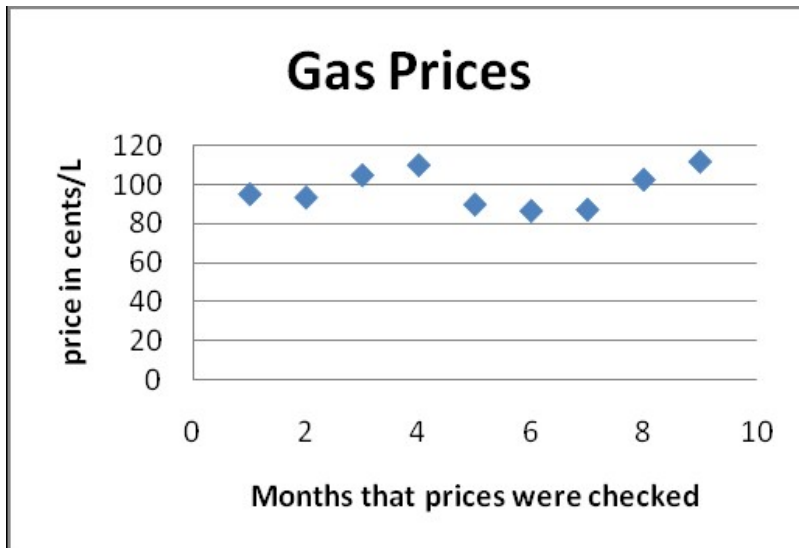
If you graph the data comparing the prices to 2006 it looks like this.



This is Price index. A Price Index describes the price of an item compared to a base value measured at a particular time or in a particular place. Price indices help people predict trends in prices. The Consumer Price Index is a very important index by stat Canada. It compares goods and service prices to a particular time to see what is happening to prices in general over time. (Up or Down and by how much?)

## UNDERSTANDING INDICES

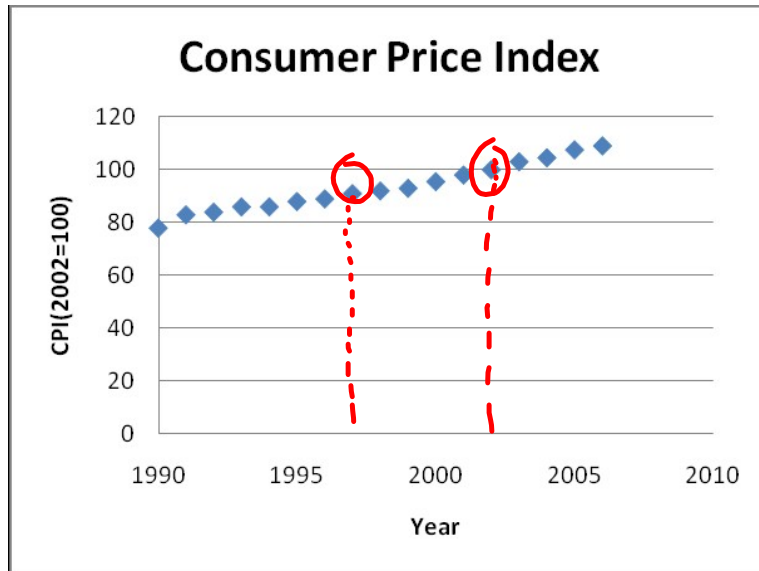
The graph below was created using the data from the table provided.



Gasoline Prices (cents/L)			% of Jan. 06
2006	Jan	95	
	March	93.3	
	May	104.6	
	July	109.7	
	Sep.	89.7	
	Nov.	86.5	
2007	Jan.	87.1	
	March	102.4	
	May	111.5	

## Example 1

Use the CPI below to answer each question.



- a) What is the base ~~price~~<sup>year</sup> for the CPI? 2002
- b) In what year was the cost of the basket of goods about 90% of the base cost? 1997
- c) What was the CPI in 1990? What does this mean? 79  
The price of goods in 1990 is 79% of the cost in 2002.
- d) Describe the change in the CPI from 1990 to 1991. What do you notice about the line segment representing this period?  
There is a larger jump in prices for these two years compared to the rest.
- e) Describe the overall trend in the CPI and its significance.

It is going up slowly  
(somewhere between 1-2% per year)

2. Use the graph from #1

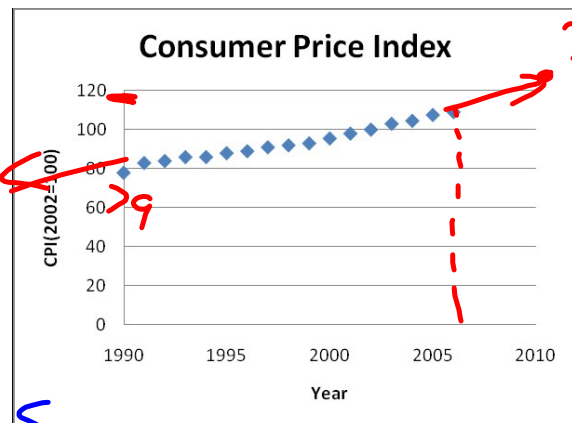
a) Calculate the average annual rate of inflation from 1990 to 2006.  $\frac{110 - 79}{2006 - 1990} = \frac{31}{16} = 1.9\%$   
 $= 16$

b) Use your answer to part "a" to predict the CPI from 2010. Justify your prediction.

$$4 \times 1.9 = 7.6$$

$$110 + 7.6 = 117.6$$

c) What would be the CPI in 1985?  $1.9 \times 5 = 9.5$   
 $79 - 9.5 = 69.5$



d) If the price of goods and services in 2002 is \$450, what would be the price in 1990?

79% of the price in 2002

$$.79 \times 450$$

$$\$355.50$$

## Use an Index to Compare Cities

The 2006 UBS Prices and Earnings report includes a comparison of clothing prices in 71 cities. The base price is the price in New York.

City	Clothing Price Index (New York = 100)
Zurich	115.6
Oslo	114.4
Dublin	97.5
New York	100
Toronto	73.8
Tokyo	148.1
Rome	87.5
Hong Kong	75
Delhi	43.8

- a) Which cities in this table have index values less than 100?

What does that mean?

Dublin, Toronto, H.K, Delhi  
Rome.

Clothes in these cities  
are cheaper than N.Y

- b) How do clothing prices in Zurich and Hong Kong compare to clothing prices in New York?

clothes  
in Zurich is 15.6% more than N.Y  
clothes in H.K. are 25% less than N.Y

NOTE: There are other types of Indices that use a formula instead of a base number to describe something about a place or person which then allows them to compare the data.

p. 237

#1, 2ac, 3ac, 5, 6, 9, 10, 11

#2a) 186

$$\frac{186-124}{124} = \frac{62}{124} = 50\%$$