

Quiz Answers for Day 30

Lesson 11. Page 198. Question 6e.

Question: Consider the bananas imported from Mexico, Guatemala, Costa Rica, and Honduras. What percent of all banana imports came from these countries in 1992? In 2001? What is the percent change in banana imports from these countries between 1992 and 2001?

Answers:

Before computing with the numbers, I must convert them all to the same units.

Example: 2.1 billion is 2,100,000,000 and 873 million is 873,000,000

I could use them in the form above with all the zeros. Or I could convert them all to millions or all to billions. **I choose to express all the numbers in millions.**

If I start with the number with all the zeros: When I want to express a number in millions, I write the number with all the zeros and then delete the last six zeros and put the word “million” after it.

If I start with the number in billions: When I wrote out the numbers with all the zeros, I notice that, when I remove the last six zeros from 2,100,000,000 then that leaves 2100 so it is 2100 million. To summarize, if we take the original 2.1 and move the decimal place three places to the right, then we have the number in millions.

Here are the sums I need:

1992 all		1992 selected		2001 all		2001 selected	
873		873		141		141	
843		843		1800		1800	
2100		2100		2400		2400	
905		905		841		841	
2000		4721	sum	2100		5182	sum
917				1000			
166				134			
7804	sum			8416	sum		

In 1992, the percentage of the US imports that came from these countries was

$$\frac{4721}{7408} = 0.605 = 60.5\%$$

In 2001, the percentage of the US imports that came from these countries was $\frac{5182}{8416} = 0.616 = 61.6\%$

The percent change is $\frac{61.6 - 60.5}{60.5} = 0.018 = 1.8\%$