

## Econ 311: Problem Set #2 Due: Monday, September 28, 2009

**Question.1** Ten economists were asked to predict the percentage growth in the Consumer Price Index over the next year. Their forecasts were

3.6 3.1 3.9 3.7 3.5  
3.7 3.4 3.0 3.7 3.4

- a. Compute the sample mean.
- b. Compute the sample median.
- c. What is the mode?

**Question. 2 Risk of a Single Asset (Standard Deviation)**

Wes and Jennie Moore, owners of Moore's Foto Shop in western Pennsylvania, are considering two investment alternatives, asset A and asset B. They are not sure which of these two single assets is better, and there ask you for some assistance.

Year	Rates of		Return
	Asset A	Asset B	
5 years ago	11.3%		9.4%
4 years ago	12.5		17.1
3 years ago	13.0		13.3
2 years ago	12.0		10.0
1 years ago	12.2		11.2
Total			
Average rate of			
return			
<b>Standard</b>			
<b>Deviation</b>			

- a. Compare the standard deviations of these two assets' rate of return.

**Question. 3** A random sample of data has a mean of 75 and a variance of 25.

- a. Use Chebychev's theorem to determine the percent of observations between 65 and 85.
- b. If the data are mounded, use the empirical rule to find the approximate percent of observations between 65 and 85.

**Question 4.** Following is a random sample of price per piece of plywood, X, and quantity sold, Y (in thousands):

---

X	Y
\$6	80
7	60
8	70
9	40
10	0

---

- Compute the covariance.
- Compute the correlation coefficient. What information does the correlation coefficient provide?