

## BUSI 344

### Suggested Answers to Review and Discussion Questions: Lesson 1

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1. Absolute frequencies are more useful for comparison than relative frequencies where the sample size is small and the relative comparison may not be as meaningful.
2. Open discussion on the BUSI 344 discussion forum.
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5. An average (or mean) measure may not always be representative of a distribution. In this example, the average size of households was determined to be 2.5, however, a household cannot have 2.5 people in actuality because household size is a discrete variable. It may have been more effective for the developer to use the mode size or examine the relative distribution of household size to determine what to build.
6. Open discussion on the BUSI 344 discussion forum.
7. The standard deviation is a measure of the dispersion of a distribution. While the range of a distribution may have a significant effect on its standard deviation, the actual distribution will determine the size of the standard deviation. If one distribution has a greater range than another, it is likely that it will have a greater standard deviation. However, if the distribution with the larger range is more tightly distributed around the mean with an outlier resulting in a large range, the standard deviation may be smaller than that of a distribution that is more widely dispersed but with a slightly smaller range. The COV is a ratio of the standard deviation divided by the mean, and therefore, the range does not tell us very much about this value.
8. If real estate is in fact a good hedge against inflation, housing prices and inflation must be (very) positively correlated. As such, when inflation increases, so would house prices. For example, let's examine a house bought for \$200,000 in 1990. Because housing prices should rise with inflation, the same house will be worth more today. However, because of inflation, if the original \$200,000 is held in cash since 1990, it is worth less today as it has less purchasing power. Therefore, by holding onto the real estate, you have hedged against inflation, and retained value in your investment. Whether or not real estate is actually a good hedge against inflation is a very debatable topic.
9. Open discussion on the BUSI 344 discussion forum.
10. By lowering the unit size, the price per unit appears lower. Larger relative price increases may be hidden. For example, a 20 cent per litre increase in gas prices doesn't seem like much, but an equivalent 80 cent overnight increase per gallon would seem a lot steeper, even though both are actually the same percentage increase. If both increased by 20 cents, the increase in the per gallon rate is only 25% or one-quarter the increase in the price per litre.

Similarly, if smoked salmon is \$20/pound, this would be \$44/kilogram. It is more enticing to sell it as \$4.40 per 100 grams, as to the casual shopper this might seem cheaper than \$20/pound. These are both examples of how statistics can be manipulated in order to mislead.