

## Day 4 Homework Math 105

### Estimation for Comparisons & Identifying Problems with Data

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Use the article you chose for the Day 2 homework (if you did not do this assignment you will need to select an article from the three choices for that assignment). Select **three** examples of quantitative information in the article and use estimation to explain the data in a different way. For each example,

- a. Identify the paragraph the data is in (1<sup>st</sup>, 2<sup>nd</sup>, etc.)
- b. Write a complete sentence restating the information.
- c. Explain how you did your estimation.

Example:

Sample excerpt:

*In California, the number of suspensions increased by almost 85,000 in just two years, from 739,290 in 2005-06 to 824,231 in 2007-08.*

**Paragraph #:** 5

**New comparison:** The number of suspensions increased by about 9%.

**Explanation for estimation:** I compared 85 to 739. 80 would be 10% of 800, so 85 would be a little less than 10% of 739.

**Article Title:** \_\_\_\_\_

1. Paragraph #: \_\_\_\_\_

New Comparison:

Explanation for estimation:

2. Paragraph #: \_\_\_\_\_

New Comparison:

Explanation for estimation:

3. Paragraph #: \_\_\_\_\_

New Comparison:

Explanation for estimation:

4. Following are excerpts from articles, reports advertisements or other publications. Identify ways in which the **quantitative** data is unclear, misleading or inaccurate using specific information presented in this class. You should identify at least 3 different problems with the presentation of the quantitative data (3 problems out of all the examples not for each example). You do not have to use all the excerpts. Explain what is wrong with the presentation for each problem you find. Write your answers in the space following the excerpts. If you do not use an excerpt, write “not used” in the space below it.

**Excerpt A:** *In Colorado, there were 9,563 referrals of students to law enforcement in 2006-2007. The vast majority of these referrals were for relatively minor offenses such as “detrimental behavior” and “violations of codes of conduct.”*

*From Test, Punish, and Push Out: How “Zero Tolerance” and High-Stakes Testing Funnel Youth into the School-to-Prison Pipeline, Advancement Project, January 2010.*

**Excerpt B:** *Lipozene diet pills are clinically proven to help reduce body fat & weight*

- *78% of each Pound Lost is PURE BODY FAT.*
- *Lipozene diet pills are backed by multiple clinical studies.*
- *REDUCE POUNDS of Body Fat and Weight WITHOUT a change in lifestyle*
- *Lipozene weight loss supplements are safe and effective*

Downloaded July 15, 2010 from

[http://www.lipozene.com/?source\\_in=LPGOGX2&gclid=CJqju7nP7qICFd8B5wodeXDehg](http://www.lipozene.com/?source_in=LPGOGX2&gclid=CJqju7nP7qICFd8B5wodeXDehg).

**Excerpt C:** *Increased emphasis on getting freshmen excited about their education outside of the classroom and giving them more personalized administrative support is paying off, Fort Lewis College administrators say. The school was able to hold on to significantly more students this year.*

*Student retention at the college increased this year by 4 percent. That means that the college saw almost 60 percent of freshmen from last year return this year as sophomores; in the past, Fort Lewis struggled to get more than 55 percent to return.*

*"These retention figures are very significant," said Fort Lewis President Brad Bartel. Typical increases for college retention are usually no higher than 1 percent, Bartel said. Last year, 55.5 percent of freshmen returned; this year, 59.5 percent came back.*

From *FLC keeping more students, administrators say*, Durango Herald, October 25, 2004, downloaded from [http://www.durangoherald.com/asp-](http://www.durangoherald.com/asp-bin/article_generation.asp?article_type=news&article_path=/news/04/news041025_2.htm)

[bin/article\\_generation.asp?article\\_type=news&article\\_path=/news/04/news041025\\_2.htm](http://www.durangoherald.com/asp-bin/article_generation.asp?article_type=news&article_path=/news/04/news041025_2.htm).

**Excerpt D:**

***Can Supplement Limit Stroke Damage?***

*Supplementing your diet with a natural form of Vitamin E called alpha tocotrienol might protect your brain's sensitive nerve cells, perhaps limiting the damage caused by a stroke.*

*The statistics speak for themselves: about 700,000 Americans will have a stroke this year and an estimated 137,000 will die as a result. Another 40 percent will be left with moderate to severe impairments that require special care.*

*According to Ohio State Medical Center researchers, supplementing your diet with a natural form of Vitamin E called alpha tocotrienol might protect your brain's sensitive nerve cells, perhaps limiting the damage caused by a stroke.*

*Ohio State professor and associate dean for research at the university's medical center, Chandan Sen says "Alpha tocotrienol is markedly more potent than the more common available forms of vitamin E in its ability to help protect neurons in the brain from damage or death."*

From *Can Supplement Limit Stroke Damage?* [chicagotribune.com](http://www.chicagotribune.com), downloaded July 15, 2010,  
<http://www.chicagotribune.com/topic/sns-health-supplement-stroke-damage,0,1421675,print.story>