Do the numbers make sense? NAMES:

1. Westchester County is a suburban area covering 438 square miles immediately north of New York City. A garden magazine claimed that the county is home to 800,000 deer. Do a calculation that shows this claim to be implausible. Explain. (A deer population should be about 6-8 deer per square mile according to www.deerfriendly.com.)

2. An article in a Midwestern newspaper about flight delays at major airports said,

> *"According to a Gannett News Service study of US airlines' performance during the past five months, Chicago's O'Hare Field scheduled 114,370 flights. Nearly 10 percent, 1,136 were canceled."*

Check the newspaper's arithmetic. What percent of O'Hare's flights were canceled? Round to the nearest percent.

3. Continental Airlines once advertised that it had "decreased lost baggage by 100% in the past six months". What is wrong with this? (HINT: If you decreased lost baggage by 100%, how much baggage would you currently lose? Is that likely?)

4. A 1994 newspaper quotes a sociologist as saying that "there are 248 women aged 40 – 44 who have never been married for every 100 men aged 40 – 44 who have never been married". This data paints a bleak picture for women finding love after 40. Below is the actual data needed to verify this fact. (source: 1996 Information Please Almanac and US Statistical Abstract) We will use the data to check the sociologist's assertion. The steps to do so are outlined below.

	Percent never married (1994)	Total number in US population (1994)
Men	9.2	127,076,000
Women	13.0	133,265,000

Find the total number of men (in 1994) who have never been married.

Find the total number of women (in 1994) who have never been married.

To find the number of women for every 100 men, set up the following proportion using x to represent the number of women for every 100 men. Then solve for x.

$$\frac{Number\ \ of\ \ women\ \ for\ \ every\ \ 100\ \ men}{100} = \frac{total\ \ women\ \ never\ \ married}{total\ \ men\ \ never\ \ married}$$

What did you get to be the true number of women for every 100 men? (Round to the nearest whole number.) Can you tell where the sociologist possibly made her mistake?