1. 250 teachers were asked if computers are an essential teaching tool; 142 said yes, the rest said no. Calculate a 99% confidence interval for the proportion of teachers who feel that computers are essential.

2. A school principal claims the students at that school are above average intelligence. A random sample of 30 students have a mean IQ of 112. Say the mean population IQ is 100 with standard deviation 15. Is there sufficient evidence to support the claim?

3. Blood glucose levels for obese people have a mean of 110 with standard deviation 15. A researcher believes that a diet high in raw cornstarch will have an effect on blood glucose level. A sample of 20 people who have tried the diet have a mean glucose level of 120. Test the hypothesis that the raw cornstarch has an effect.

   Discussion: What would need to happen in order to reach a different conclusion?

4. 13 men and 10 women record their body fat percentages:

MEN   13.3   6.0   20.0   8.0   14.0   19.0   18.0
       25.0   16.0   24.0   15.0   1.0   15.0

WOMEN   22.0   16.0   21.7   21.0   30.0   26.0   12.0
        23.2   28.0   23.0

Do a t-test to see if the mean percentages the same for both groups.