

### Math 13 Chapter 8 Overview

- 1) The claim is that the mean is at most 12. Write down the Claim,  $H_1$  and  $H_0$ .
  
  
  
  
  
  
  
  
  
  
- 2) The claim is that the mean is over 12. Write down the Claim,  $H_1$  and  $H_0$ .
  
  
  
  
  
  
  
  
  
  
- 3) The claim is that the proportion is 0.82. Write down the Claim,  $H_1$  and  $H_0$ .
  
  
  
  
  
  
  
  
  
  
- 4) The claim is that the mean is 33. A sample of 87 people found the mean to be 31.7 with  $s = 1.2$ . Find the value of the critical values and the test statistic.
  
  
  
  
  
  
  
  
  
  
- 5) Out of 90 people chosen at random, 8 had served on a jury. Test the claim that less than 10% of people have served on a jury.

6) The IQ's of 50 people were tested. They had a mean of 103.6 and it is known that  $\sigma = 15$  for IQ scores. Test the claim that the mean for the population is 100 for IQ's.

7) An automated drink dispenser is supposed to deliver 16oz. of soda with a standard deviation less than 0.3oz. For the last 80 drinks dispensed, the mean was 15.9 with  $s = 0.5$ . Test the claim that the standard deviation is less than 0.3oz.

8) For his last 36 basketball games, Kevin Durant of the Oklahoma City Thunder has averaged 29.5 points with  $s = 6.5$ . Test the claim that Durant could be as good as Kobe Bryant whose lifetime average is 25.5 points per game.