

EXAMPLE 1: A researcher claims that the average number of years that recent college graduates stay at his/her first job is 3.4 years. The standard deviation is known to be 1.1 years. A survey of 240 randomly selected college graduates found that the average time at his/her first job was 2.9 years. Test the claim using a significance level of .10. Use both the traditional and  $P$ -value methods.

EXAMPLE 2: A study of 32 randomly selected shoppers in a grocery store found that the mean purchase total was \$98.76 with a standard deviation of \$14.86. The store claims that the average amount spent is under \$100. Test this claim using both the traditional and the  $P$ -value method.

EXAMPLE 2 (re-do): Suppose the mean purchase total was \$96.37 with a standard deviation of \$14.86. Use only the  $P$ -value method.