

# Monday, April 8, 2019

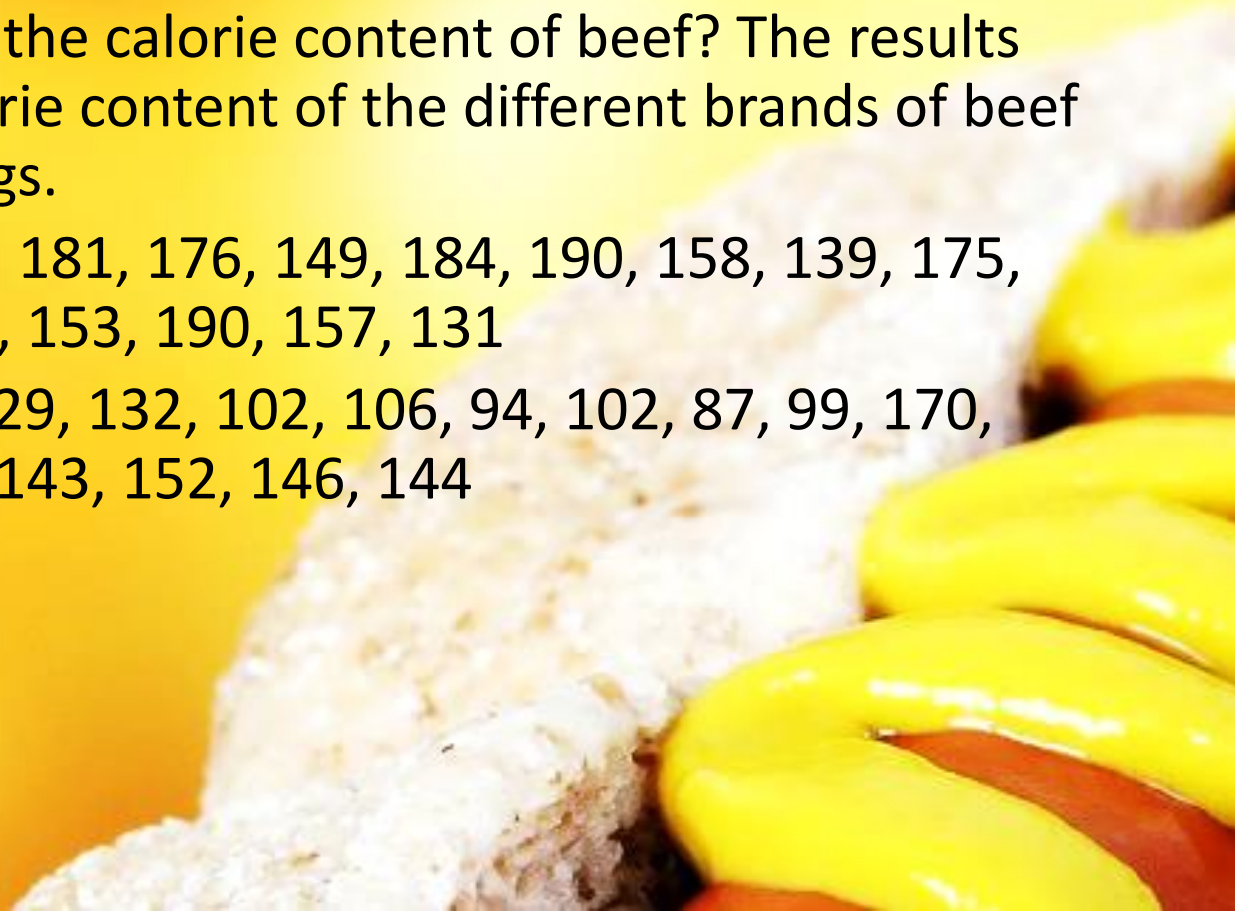
- Warm-up

- A U.S. magazine, Consumer Reports, carried out a survey of the calorie content of a number of different brands of hotdog. There were two types of hotdog: beef and poultry. Is there evidence that the calorie content of poultry hot dogs is lower than the calorie content of beef? The results below are the calorie content of the different brands of beef and poultry hotdogs.

- Beef hotdogs: 186, 181, 176, 149, 184, 190, 158, 139, 175, 148, 152, 111, 141, 153, 190, 157, 131

- Poultry hotdogs: 129, 132, 102, 106, 94, 102, 87, 99, 170, 113, 135, 142, 86, 143, 152, 146, 144

- MC Practice



# Objectives

**Content:** I will perform hypothesis tests and confidence intervals using 2 samples

**Social:** I will work well with my groups, communicating my thinking.

**Language:** I will use the proper terminology and phrases in answering the practice problems.

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2 sample t-test

$$H_0: \mu_b = \mu_p$$

$$H_a: \mu_b > \mu_p$$

$$t_{31.648} = 4.5$$

$$p\text{-value} = 0.000041$$

Beef

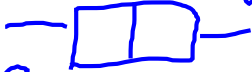
Poultry


Independent samples -

Independent groups

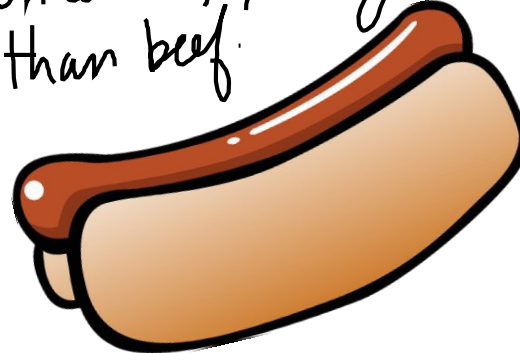
assume random sample  
 $17 < 10\%$  of all beef hot dog brands

Assume Random Sample  
 $17 < 10\%$  of all poultry hot dog brands

 fairly symmetric - nearly normal

 fairly symmetric - nearly normal

Due to a p value of 0.000041, which is lower than an  $\alpha$  of 0.05 we reject the null. There is statistical evidence that the calorie content of poultry hot dogs is lower than beef.





**MC  
Practice**

# Homework for the chapter

Study for  
the test

*Due Wednesday...*