

9/11/18

Class Examples 2/1/18

Example 1: The data in table 1 represents the first exam score of 10 students enrolled in a college statistics course. Treat the 10 students as a population.

- a. Compute the population mean.
- b. Find the sample mean for the sample consisting of Jennifer, Juan, Ryanne, and Dave.

Table 1.

Student	Score
Michelle	82
✓ Ryanne	77
Bilal	90
Pam	71
✓ Jennifer	62
✓ Dave	68
Joel	74
Sam	84
Justine	94
✓ Juan	88

62
68
77
74
77
82
84
88
90
94

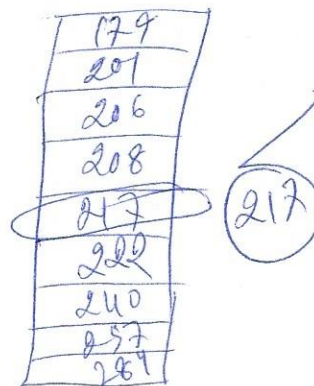
$$\begin{aligned} & \frac{77+82}{2} \\ & = \frac{159}{2} \\ & = \boxed{79.5} \end{aligned}$$

problem 3

Example 2: The data in Table 2 represent the length (in seconds) of a random sample of songs released in the 1970s. Find the median length of the songs.

Table 2.

Song Name	Length
"Sister Golden Hair"	201
"Black Water"	257
"Free Bird"	284
"The Hustle"	208
"Southern Nights"	179
"Stayin' Alive"	222
"We Are Family"	217
"Heart of Glass"	206
"My Sharona"	240



Example 3: Find the median score of the data from table 1 (Test scores).

Example 4: Comparing the Mean and the Median

Yolanda wants to know how much time she typically spends on her cell phone. She goes to her phone's website and records the call length for a random sample of 12 calls, shown in the table below. Find the mean and median length of a cell phone call. Which measure of central tendency better describes the length of a typical phone call?

Table 3.

1	7	4	1
2	4	3	48
3	5	3	6

1
1
2
3
3
4
8
6
7
48

Median.

$$\text{Mean} = \frac{1+7+4+1+2+4+3+4+8+3+5+3+6}{12} = \boxed{2.25}$$

$$\text{Median} = \frac{3+4}{2} = \boxed{3.5}$$

