

- c. What is the mean for the combined set if the first sample has $n = 5$ and the second sample has $n = 3$?

22. One sample has a mean of $M = 5$ and a second sample has a mean of $M = 10$. The two samples are combined into a single set of scores.

- a. What is the mean for the combined set if both of the original samples have $n = 5$ scores?

- b. What is the mean for the combined set if the first sample has $n = 4$ scores and the second sample has $n = 6$?

- c. What is the mean for the combined set if the first sample has $n = 6$ scores and the second sample has $n = 4$?

23. Explain why the mean is often not a good measure of central tendency for a skewed distribution.

24. A researcher conducts a study comparing two different treatments with a sample of $n = 16$ participants in each treatment. The study produced the following data:

Treatment 1: 6 7 11 4 19 17 2 5
9 13 6 23 11 4 6 1

Treatment 2: 10 9 6 6 1 11 8 6 3
2 11 1 12 7 10 9

- a. Calculate the mean for each treatment. Based on the two means, which treatment produces the higher scores?

- b. Calculate the median for each treatment. Based on the two medians, which treatment produces the higher scores?

- c. Calculate the mode for each treatment. Based on the two modes, which treatment produces the higher scores?

25. Schmidt (1994) conducted a series of experiments examining the effects of humor on memory. In one study, participants were shown a list of sentences, of which half were humorous and half were non-humorous. A humorous example is, "If at first you don't succeed, you are probably not related to the boss." Other participants would see a nonhumorous version of this sentence, such as "People who are related to the boss often succeed the very first time."

Schmidt then measured the number of each type of sentence recalled by each participant. The following scores are similar to the results obtained in the study.

Number of Sentences Recalled	
Humorous Sentences	Nonhumorous Sentences
4 5 2 4	5 2 4 2
6 7 6 6	2 3 1 6
2 5 4 3	3 2 3 3
1 3 5 5	4 1 5 3

Calculate the mean number of sentences recalled for each of the two conditions. Do the data suggest that humor helps memory?

26. Stephens, Atkins, and Kingston (2009) conducted a research study demonstrating that swearing can help reduce pain. In the study, each participant was asked to plunge a hand into icy water and keep it there as long as the pain would allow. In one condition, the participants repeatedly yelled their favorite curse words while their hands were in the water. In the other condition the participants repeated a neutral word. Data similar to the results obtained in the study are shown in the following table. Calculate the mean number of seconds that the participants could tolerate the pain for each of the two treatment conditions. Does it appear that swearing helped with pain tolerance?

Amount of Time (in seconds)	
Participant	Swear Words
1	94
2	70
3	52
4	83
5	46
6	117
7	69
8	39
9	51
10	73
	61

27. Earlier in this chapter (p. 67), we mentioned a research study demonstrating that alcohol consumption increases attractiveness ratings for members of the opposite sex (Jones, Jones, Thomas, & Piper, 2003). In the actual study, college-age participants were recruited from bars and restaurants near campus and asked to participate in a "market research" study. During the introductory conversation, they were asked to report their alcohol consumption for the day and were told that moderate consumption would not prevent them from taking part in the study. Participants were then shown a series of photographs of male and female faces and asked to rate the attractiveness of each face