Total sleep time per night among college students was approximately Normally distributed with mean μ = 6.78 hours and standard deviation σ = 1.24 hours.

1. If your sleep time is 8 hours, what percent of students sleep less than you?

1. Use the “68–95–99.7 rule” to describe the sleep time of college students.
2. You take a sample of 100 students and calculate their average sleep time. What is the distribution of all possible sample means of 100 students?
3. You take a sample of 100 students and calculate their average sleep time. What is the probability that the average is below 7 hours?
4. Use the “68–95–99.7 rule” to describe the variability of average sleep time of 100 students.
5. You take a sample of 100 students and calculate their average sleep time. The average sleep time is 7 hours. What is the 95% confidence interval for the population average sleep time?