1 Concept Questions

1. What is the purpose of inferential statistics?
2. What is the subject of Statistics?
3. What is the purpose of descriptive statistics?
4. What is a simple random sample?
5. What is measured by the median?
6. What is measured by the standard deviation?
7. What can we conclude, when the median s much larger than the mean?
8. State the Addition Rule for two random events.
9. State the general multiplication rule.
10. What is the sensitivity of a clinical test?
11. What does it mean when two random events are independent?
12. Draw a Venn Diagram showing events$A$ and B in their sample space. Shade the area representing $A\&B^c$.
13. What is the difference between numerical discrete and numerical continuous variables, give an example for each.
14. Draw the density of a random variable X of a normal distribution with mean μ and standard deviation σ. Include μ and σ with your diagram. In the diagram show $P(X > \mu)$.
15. State the Central Limit Theorem
16. Which graph is suitable to visualize the length of surgery for different organ transplants (liver, kidney, heart)?
17. Which graph is suitable to visualize the relationship between temperature (daily high) and wind speed (daily high)?
18. Which graph is suitable to visualize the relationship between location (North, East, West, South) of a grave in an ancient burial ground and the presence of burial items in the grave (yes/no)?
19. In a paper they state that "lung volume is approximately normally distributed". What does that mean?