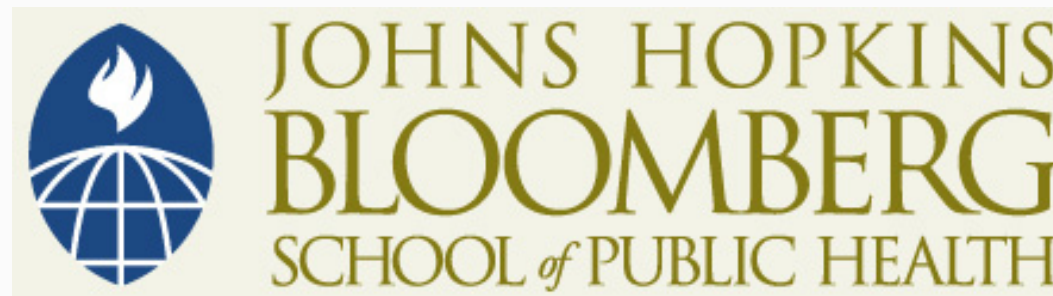


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JOHNS HOPKINS
BLOOMBERG
SCHOOL *of* PUBLIC HEALTH

Lecture 2b: Practice Problems

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Practice Problems

- Suppose a population is normally distributed (and you are a member of the population)
 1. If you have a standard score of $Z = 2$, what percentage of the population has scores greater than you?
 2. If you have a standard score of $Z = -2$, what percentage of the population has scores greater than you?
 3. If you have a standard score of $Z = 1$, what percentage of the population has scores less than you?
 4. If you have a standard score of $Z = 1$, what percentage of the population has scores farther away from the population mean (in either direction) than you?
 5. If you have a standard score of $Z = -1.7$, what percentage of the population has scores farther away from the population mean (in either direction) than you?
 6. If you have a standard score of $Z = -1.7$, what percentage of the population has scores greater than you?

Practice Problems

7. Suppose the distribution of grades in your statistics class is normal, with mean = 83.4, $s = 7$. There are 120 total in the class. If you score a 97.4 in the class, roughly how many people have scores higher than you?
8. Suppose we call unusual observations in a population of normally distributed values those that are either at least 2 SD above the mean or about 2 SD below the mean. What percent are unusual? In other words, what percent of the observations will have a standard score either $Z > + 2.0$ or $Z < -2.0$? What percent would have $|Z| > 2$?