Week 6. STAT1020 Discussion section – Issac Lee

1. The 68-95-99.7 Rule

1) As a group, the Dutch are among the tallest people in the world. The average Dutch man is 184cm tall. If a Normal model is appropriate and the standard deviation for men is about 8 cm, what percentage of all Dutch men will be over 2 meters tall?

2) Peter found that 16 % of Dutch men are smaller than this height, how tall is he?

2. Normal model - Review problem

1) Weights of individual Brand X tortillas are normally distributed with mean = 1.2 ounces, and standard deviation = 0.15 ounces. What percentage of Brand X tortillas have weights between 0.87 and 1.45 ounces?

2) The daily "winnings" of a gambler are normally distributed with mean = $50. On 4.75% of days, the gambler's winnings exceed $250. Find the standard deviation of the gambler's daily winnings. (Note: "Winnings" can be negative.)

3) Suppose the weights of adult pandas are normally distributed with standard deviation = 50 lbs. Panda Po's weight is 300 lbs. It is known that Po is heavier than 91.92% of pandas. What is the mean panda weight?