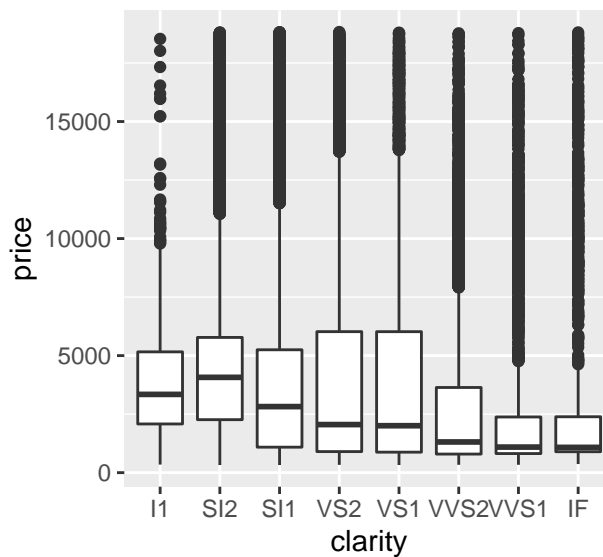


Homework 4

due Feb 9, 2021

(Problems 1, 2) Recall the `diamonds` data set we used in class.

1. Note that the `diamonds` data set has eight distinct `clarity` values. For each of these values, compute the median diamond `price`.
2. Verify your answer in 1. above by drawing the plot below:



3. Recall the `starwars` data set we used in class. Which human female character has the shortest height with brown hair color?
4. Assume that X follows a normal distribution with mean 5 and standard deviation 2, say $N(5, 2^2)$. Compute the probability that $3 \leq X \leq 5$.
5. Determine c so that the probability $0 \leq Z \leq c$ is 0.45, where Z follows the standard normal distribution $N(0, 1^2)$.