Math 5710 Thursday, 7/23/20 Quiz 23

1. What is your name?

2. A number is randomly selected from { 1, 2, 3, ..., 100 }. What is the probability that 58 is selected?

   The probability that 58 is selected is 0.01.

3. A number is randomly selected from [1, 100). What is the probability that 58 is selected?

   The probability that 58 is selected is 0.

4. A number is randomly selected from [1, 100). What is the probability that the number selected is an element of [50, 60)?

Sample answer:

I don't know because the probability of x being selected $\ni x \in [\ 1, 100\ )$ depends on the sample space of the experiment. I will answer the question for the case in which the sample space is as follows:

Ω = { [1, 10), [10, 20), [20, 30), [30, 40), [40, 50), [50, 60), [60, 70), [70, 80), [80, 90), [90, 100)

So for the case in which Ω is so defined, the probability that the number selected is an element of [50, 60) = 0.1

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5. Smile.