

### Homework 3

**Due:** 11:59pm, Thursday, Feb. 24th

**Instruction:** Please scan or typeset your solutions and upload them as a single pdf file to Canvas. Do not just take a picture of your solutions.

0. Readings: Sections 4.3, 4.4

1. Section 4.5: 1(c) (d) (e)

2. Section 4.5: 2

3. Section 4.5: 3

4. Section 4.5: 11

5. Section 4.5: 13

6. Let a random variable  $X \sim \text{Bernoulli}(p)$ , compute its population mean  $\mu$ , population variance  $\sigma^2$ , and population standard deviation  $\sigma$ .

7. Let a random variable  $Y \sim \text{Binomial}(n, p)$ , compute its population mean  $\mu$ , population variance  $\sigma^2$ , and population standard deviation  $\sigma$ .