

HOMWORK # 7

1] Section 4.8: 1, 3, 5.

2] Section 5.7: 7.

3] Section 5.8: 5(a), (b), 8, 9.

4] Section 5.9: 1, 2.

5] Section 5.10: 1, 9.

6] Section 5.12: 32, 39, 52.

7] Assume that X_1, X_2, \dots are independent $\text{Unif}[0, 1]$, and let $S_n = X_1 + \dots + X_n$, for $n \in \mathbb{N}$.

(a) Compute approximately $\mathbb{P}(S_{192} \leq 90)$.

(b) Find n so that $\mathbb{P}(S_n \geq 50) \geq 0.95$.

(Hint: Read Example 8.18 in the professor lecture notes)