

# Homework #5

*ST 554*

## Mixed Distributions

- Let  $X \in \mathbb{R}$  have the cdf  $F$ . Find the cdf of  $X^+ = \max\{0, X\}$ .
- Find and sketch the cdf for  $X \sim \text{Unif}(-2, 4)$ .
- If  $X \sim \text{Unif}(-2, 4)$ , what is  $P(X^+ = 0)$  and  $P(X^+ = 1)$ .

## Blitzstein & Hwang: Chapter 5

1, 4, 5, 6, 8, 10, 11, 14, 18, 21, 24, 26

## Extra problems: Chapter 5 (optional)

- solved: 12, 16, 32, 33, 34, 36
- interest: 25, 27, 28, 30