## CS394 R Homework 1

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August 26, 2018

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$$U = \{1, 2, 3 \dots 10\}, A = \{1, 4, 7, 10\}, B = \{1, 2, 3, 4, 5\}, C = \{2, 4, 6, 8\}.$$

 $\mathbf{a}$ 

$$\bar{A} \cap C = \{2, 6, 8\}, |\bar{A} \cap C| = 3$$

b

$$B - \bar{C} = \{2, 4\}, |B - \bar{C}| = 2$$

 $\mathbf{c}$ 

$$B \cup A = \{1, 2, 3, 4, 5, 7, 10\}, |B \cup A| = 7$$

 $\mathbf{d}$ 

$$\bar{B} \cap (A - C) = \{1\}, |\bar{B} \cap (A - C)| = 1$$

 $\mathbf{e}$ 

$$(A-B) \cap (B-C) = \emptyset, |(A-B) \cap (B-C)| = 0$$