Class Exercise 5

1. **Three events**

   Let A, B and C be three events such that A is mutually exclusive from both B and C, $P(A) = 0.2$, $P(B) = 0.4$, $P(C) = 0.6$ and $P(B \cap C) = 0.3$. Determine the following probabilities

   (a) $P(A \cup B \cup C)$

   (b) $P(A' \cap B \cap C)$

   (c) $P(A' \cap B' \cap C')$

   (d) $P((A \cup B) \cap C)$

   (e) $P((A \cup B') \cap C')$

   (f) $P(C' \cup (A' \cap B'))$

   (g) $P(A \cup B' \cup C')$

   (h) $P((A \cup B) \cap (A' \cup C))$