Good luck!

1. Let \( A = \{1, 2, 3, 5, 7, 9\} \), \( B = \{1, 4, 7, 10\} \), \( C = \{2, 4, 6, 8, 10\} \), and let the universal set be \( U = \{1, 2, ..., 10\} \). Calculate the following quantities:

   a) \( B' \)

   b) \((A \cup B) \cap C\)

   c) \((A - B) - C\)

   d) \(A - (B - C)'\)

2. Let \( A \) and \( B \) be sets with \(|A| = 6\) and \(|B| = 5\).

   a) What is \(|A \times B|\)?

   b) What is \(|P(B)|\)?

   c) What is \(|P(A \times B)|\)?