

**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  $U = \{1, 2, \dots, 10\}$ . 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  $|AxB|$ ?

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

c) What is  $|P(AxB)|$ ?