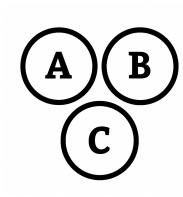
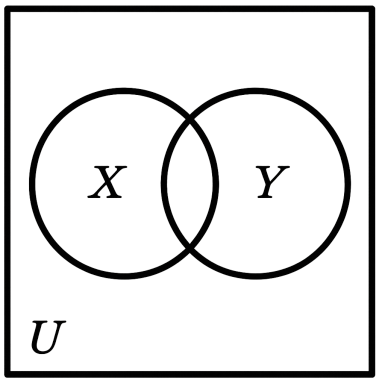
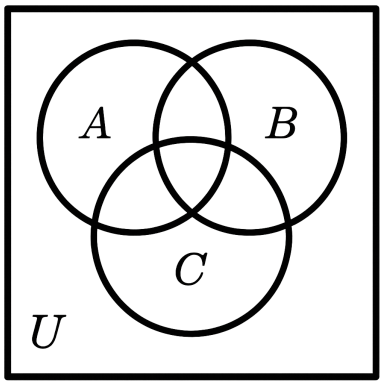
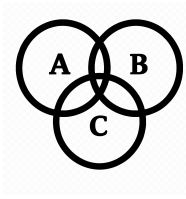
F Set Operations F









$|X \cup Y| = |X| + |Y| - |X \cap Y| = |U| - |X^C \cap Y^C|$

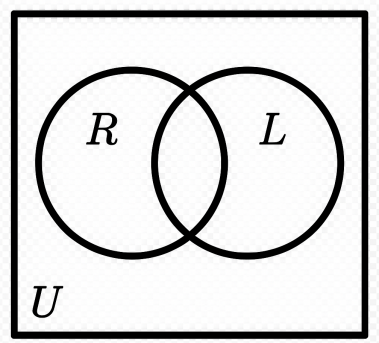
$|X \cap Y| = |X| + |Y| - |X \cup Y| = |U| - |X^C \cup Y^C|$

$|A \cup B \cup C| = |A| + |B| + |C| - |A \cap B| - |B \cap C| - |A \cap C| + |A \cap B \cap C|$

$|A \cap B \cap C| = -|A| - |B| - |C| + |A \cup B| + |B \cup C| + |A \cup C| + |A \cup B \cup C|$

$|A \cap B| = |A \cap B \cap C^c| + |A \cap B \cap C|$

?



$|R| = 30$

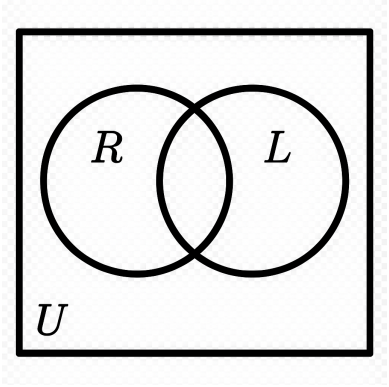
$|L| = 40$

$|R^C \cap L^C| = 35$

$|U| = 100$

$|L \cup R| = ?$

Set Operations



$|R| = 30$
$|L| = 40$
$|R^C \cap L^C| = 35$
$|U| = 100$
$|L \cup R| = ?$
$|L \cup R| = |L| + |R| - |L \cup R|$
$|L \cup R| = |L| + |R| - (|U| - |L^C \cap R^C|) = 40 + 30 - (100 - 35) = 5$