Expressions for Switches

When implementing expression using switches, it is helpful to have the expression in a form where only inputs are complemented. For each expression below, use DeMorgan’s theorem to obtain an equivalent expression which contains ANDs and ORs of the inputs (e.g., $A$) and their complements (e.g., $\overline{A}$). There should be no complements (bars) in the final expression except those over the inputs.

Part A

$Out_1 = A(B + C) + (D \overline{E} F)$

Part B

$Out_2 = ((\overline{A} + B) + C) + (D + (E + \overline{F}))$