

1. Given the following function: $F(W,X,Y,Z) = \Sigma m(2,3,5,7,12,13)$.
 - a. Implement the function using an 8-input multiplexer.
 - b. Implement the function using a 4-input multiplexer.
2. Implement a 4-input multiplexer:
 - a. Using two 2-input multiplexers and logic gates.
 - b. Using two 2-input multiplexers and tri-state buffers.
 - c. Using only 2-input multiplexers.
3. Determine the ROM size and contents to implement a function which converts a sign and magnitude number from -5 to +6 to two's complement format.