TEJ4M-01

Representing Negative Numbers

1. State the binary equivalent of the following decimal numbers using Single Magnitude Method:
   a) 54 = 0011 0110
   b) -54 = 1011 0110
   c) -79 = 1100 1111
   d) -89 = 1101 1001
   e) -114 = 1111 1100
   f) -127 = 1111 1111
2. State the binary equivalent of the following decimal numbers using Two's Complement:
   a) 54 = 0011 0110
   b) -54 = 1100 1010
   c) -79 = 1011 0001
   d) -89 = 1010 0111
   e) -114 = 0111 1110
   f) -127 = 1001 0001

Add and Subtract the following in binary

a) 6+2= 0110 + 0100 = 1010
b) 10+3= 1010 + 0011 = 1101
c) 11-8= 1011 + 1000 = 0001 0011
d) 15-9= 1111 + 0111 =
e) 23-12= 0001 0111 + 0100 = 0001 1011
f) -3 - -4= 1101 + 1100 = 0001 0001