Quiz

Answer the following items on sheet(s) of yellow paper. Do not write anything at the back of each sheet. Write your name and section on top of each sheet. **Show all solutions and box all final answers**. Deadline: **18 August 2015, 5pm.**

1. Perform the specified operations. Assume an 8-bit word size and operands in 2C notation. Express the answers in decimal.
   (a) 0100 0010 + 1001 0001
   (b) 1010 1010 + 0001 1000
   (c) 0101 0100 + 0010 0111
   (d) 1011 1011 + 1111 1110
   (e) 0111 1011 - 0110 0101
   (f) 0100 1001 - 1110 1011
   (g) 1110 1111 - 1100 1011
2. Determine if the following operations would result to an overflow. Assume an 8-bit word size.
   (a) 1100 0010 + 1101 0001
   (b) 1010 1010 + 0101 1100
   (c) 1101 0100 + 0010 0001
   (d) 1011 1011 + 1111 1110
   (e) 0111 1011 - 0111 0101
   (f) 0101 1001 - 1101 1011
   (g) 1111 1111 - 1001 1011
   (h) $1100\ 0010_{2c}$ + $1101\ 0001_{2c}$
   (i) $1010\ 1010_{2c}$ + $0101\ 1100_{2c}$
   (j) $1101\ 0100_{2c}$ + $0010\ 0001_{2c}$
   (k) $1011\ 1011_{2c}$ + $1111\ 1110_{2c}$
   (l) $0111\ 1011_{2c}$ - $0111\ 0101_{2c}$
   (m) $0101\ 1001_{2c}$ - $1101\ 1011_{2c}$