# CS 429 Quiz 1: February 5, 2018

Name/EID: _____

**Note that this quiz has two sides.**

1. (12 points: 2 points each) Perform the following operations or conversions.

   (a) `0x503c - 0x40` (result in hex): _____

   (b) Hex 0xbc06 to binary: _____

   (c) Decimal 53 to little-endian hex (show 4 bytes): _____

   (d) `01101001 ^ 01010101` (binary): _____

   (e) `01101001 & 01010101` (binary): _____

   (f) Decimal value of unsigned `0xFFFFFFFF`: _____
   (an expression is OK)

2. (2 points) Given a value x, show how to compute $41x$ using only shifts and adds (as few as possible).

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3. (6 points total: 2 points each) Write a single C expressions (not a series of statements), in terms of the 32-bit variables x and y, to compute a value that is:

   (a) identical to x, except that the most significant byte is set to 0xFF:

   (b) has as its least significant (LS) byte the LS byte of y, but all other bytes are the corresponding bytes of x:

   (c) is the (bitwise) complement of the exclusive or of x with y:

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