Recitation#1: Number Conversion

CS232 Spring 2021

When: January 29 at 2:00 pm

Assume we are dealing with 8 bit numbers for this task. Complete the following tables to practice encoding decimal values into unsigned and two's complement. The first table is unsigned and the second table is two's complement. The first row of each column has been filled out for you. If a decimal number can't be encoded into binary and hexadecimal with the given scheme, write "NA" for both columns.

Note: the '0b' and '0x' prefixes denote the following numeral as binary or hexadecimal respectively.
Unsigned

Decimal	Binary	Hexadecimal
10	0b0000 1010	0x0A
241	0b1111 0001	0xF1
15	0b0000 1111	0x0F
162	0b1010 0010	0xA2
250	0b1111 1010	0xFA
255	0b1111 1111	0xFF
204	0b1101 1101	0xCC
-35	n/a	n/a
128	0b1000 0000	0x80
105	0b0110 1001	0x69

Two's Complement

Decimal	Binary	Hexadecimal
-10	0b1111 0110	0xF6
-15	0b1111 0001	0XF1
241 (n/a)	0b0000 1111(n/a)	0x0F
-94	0b1010 0010	0xA2
250	**n/a**	**n/a**
-1	0b1111 1111	0xFF
-204	0b1100 1100	0xCC
-35	0b1101 1101	0xDD
128	n/a	n/a
151(n/a)	0b0110 1001	0x69