M1CW2

Name: Daniel Kantor

Numbering System Practice

Show your work. I will deduct points for not showing your work

1. Convert the following decimal numbers to binary

A. 48_{10} : $\boxed{110000_2}$

$48 = 32 + 16$

$32 = 2^5$

$16 = 2^4$

110000

B. 199_{10} : $\boxed{11000111_2}$ $199 = 128 + 64 + 4 + 2 + 1$

$$\overset{\checkmark}{128} - \overset{\checkmark}{64} - \overset{\times}{32} - \overset{\times}{16} - \overset{\times}{8} - \overset{\checkmark}{4} - \overset{\checkmark}{2} - \overset{\checkmark}{1}$$

1 1 0 0 0 1 1 1

C. 113_{10} : $\boxed{1110001_2}$ $113 = 64 + 32 + 16 + 1$

$$\overset{\checkmark}{64} - \overset{\checkmark}{32} - \overset{\checkmark}{16} - \overset{\times}{8} - \overset{\times}{4} - \overset{\times}{2} - \overset{\checkmark}{1}$$

1 1 1 0 0 0 1