Math 2303
Homework Assignment # 2
Due: Friday, September 18, 2009

_____
Student Name

_____
PSID#

Mark the box next to your class:

☐	**Dr. Flagg, Section 25738, MWF 11 - noon**
☐	**Dr. Tucker, Section 25734, TTh 8:30 - 10**
☐	**Dr. Tucker, Section 25740, TTh, 11:30 - 1**
☐	**Dr. Tucker, Section 25736, TTh, 2:30 - 4**

Instructions:

- **Print out this form and complete the problems. You must do all of the problems!**
- **Show all work in the space provided. You must show work in order to receive credit for a problem.**
- **Write your final answer in the box.**
- **If your identifying information is not completely filled in, your paper will not be graded.**
- **Staple all pages together.**
- **Homework must be submitted in class according to your professor's instructions. Late work will not be accepted.**

Section 1.4 Exercise #10

59 to base 2

place values 1, 2, 4, 8, 16, 32, 64

$32\overline{)59}$ 1, 32, 27

$16\overline{)27}$ 1, 16, 11

$8\overline{)11}$ 1, 8, 3

$4\overline{)3}$ 0, 3

$2\overline{)3}$ 1, 2, 1

$1\overline{)1}$ 1

111011_2

Section 1.4 Exercise #18

101 to base 8

place values 1, 8, 64, 512

$64\overline{)101}$ 1, 64, 37

$8\overline{)37}$ 4, 32, 5

$1\overline{)5}$ 5

145_8

Section 1.4 Exercise #34

11101110_2

$= 1\times2^7 + 1\times2^6 + 1\times2^5 + 0\times2^4 + 1\times2^3 + 1\times2^2 + 1\times2 + 0$

$= 128 + 64 + 32 + 8 + 4 + 2 = 238$

Section 1.4 Exercise #36

125_7

$= 1\times7^2 + 2\times7 + 5 = 68$

Section 1.4 Exercise #42

$3F_{16} = 3\times16 + 15$

$= 48 + 15$

$= 63$

Section 1.5 Exercise #4

$$\begin{array}{r} {}^{1}34_5 \\ 40_5 \\ \hline 124_5 \end{array}$$

$3+4=7$

1 set of 5

+2 left

put 2 under 3, 4 column and carry the one

124_5

Section 1.5 Exercise #14

$$\begin{array}{r} {\scriptstyle 1} \\ 572_8 \\ +\ 123_8 \\ \hline 715_8 \end{array}$$

$7+2=9$

1 set of 8 + 1 left

715_8

Section 1.5 Exercise #22

$$\begin{array}{r} {\scriptstyle 1} \\ 7E9_{16} \\ +\ 542_{16} \\ \hline D2B_{16} \end{array}$$

$9+2=11=B_{16}$

$E+4=14+4=18$

$=1$ set 16 + 2 left

$1+7+5=13=D_{16}$

$D2B_{16}$

Section 1.5 Exercise #26

$$\begin{array}{r} {\scriptstyle 3\ \ 6+4} \\ 4\not{4}_6 \\ -\ 35_6 \\ \hline 05_6 \end{array}$$

$(6+4)-5=5$

5_6

Section 1.5 Exercise #34

$$\begin{array}{r} {\scriptstyle 1\ \ 9+3} \\ 2\not{3}_9 \\ -\ 14_9 \\ \hline 08_9 \end{array}$$

$(9+3)-4=8$

8_9