Problem set 3 Solutions

Problem 1: Colors

(a) Your three colors: names and hex values

Anything goes as long as the hex values are legal

(b) RGB values of red, green, blue, yellow, cyan, magenta in hexadecimal

Red FC0000  Green 03FFC0  Blue 00003F
Yellow FFFFC0  Cyan 03FFFF  Magenta FC003F

Problem 2: Bits, Bytes, Bases

(a) Number of bits for US population?

330 million = 330 x 300M = 9 bits + 20 bits = 29 bits

(b) Number of bytes for US population?

4 bytes

(c) Number of bytes for EU population?

4 bytes

(d) Number of bytes for population of the world?

8B = 2^33 so 5 bytes

(e) Number of bytes for US national debt?

32 x 10^12 = about 45 bits so 6

Problem 3: Bloody Instructions

(a) What section discusses addition vs multiplication?

1.5. Also in 5.2

(b) Paste in your added code sections with a line of context around each.

There are three places: two error checks and the actual computation
Problem 4: Get with the Program

(a) Paste in your program that prints a number, its square, its cube.

Get
Store N
Print
Mul N
Print
Mul N
Print
Stop

(b) Paste in your program for counting down by sevens.

Get N
Top Print
Sub 7
Ifpos Top
Stop