CIS 2107. Quiz 3a.

The quiz is 2 pages and is out of 20 points.

1. 1 point 5 milliseconds = ? hours

2. 1 point Using the approximation trick we spoke about in class, about how much is $2^{36}$

3. 2 points What is $6086_{16}B1E1B + 4A88_{16}2B_{16}$ in base 16?

   $\begin{array}{cccccc}
   6 & 0 & 8 & 6 & B & 1 \\
   + & 4 & A & 8 & 8 & 2 \\
   \hline
   \end{array}$

4. 8 points Write a function which is passed a string. The function returns 1 if the string contains a double letter in the middle and 0 if it does not. A double letter is defined as (i.e., two consecutive letters that are the same. For example, if the string is yellow or zipper, the function returns 1. Do not use any functions in <string.h>. No credit given for solutions that use functions in <string.h>.
5. **8 points** A `color_t`, which is defined `typedef uint32_t color_t;`, is used to store how red, green, and blue a particular color is. Each of the three components (i.e., the red, green, and blue values) is stored as an `unsigned char`. Write a function which is passed red, green, and blue values, and returns a `color_t` with the appropriate values set. For example, if the function is passed a red value of 0x27, a green value of 0xA3, and a blue value of 0xFF, the function returns a `color_t` with value 0x0027A3FF.