CIS 2107. Quiz 3b.

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

1. 1 point 5 minutes = ? milliseconds

2. 1 point Using the approximation trick we spoke about in class, about how much is $2^{25}$

3. 2 points What is $B50DDD798_{16} + 58A423_{16}$ in base 16?

\[
\begin{array}{cccccccc}
B & 5 & 0 & D & D & D & 7 & 9 \\
+ & 5 & 8 & A & A & 2 & 3 & 16 \\
\end{array}
\]

4. 8 points Write a function which is passed a string. The function returns the number of double letters (i.e., two consecutive letters that are the same) it contains. For example, if the string is shampoo, the function returns 1. If it’s subcommittee, it returns 3. 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 a color_t and an integer c (for component). If c==0, return the blue component. If c==1, return the green component, if it's 2, return the red component. For any other value of c return the integer 0. For example, if the function is passed a color_t with value 0x0027A3FF and c with value 1, the function returns the integer 0xA3.