Problem Statement

The following text is a C program. Evaluate by hand/calculator the C expressions in the order listed below and write your answers in the spaces provided in the comments to the right. Once you have manually performed all of the calculations, enter, save, and compile the program below.

```
/*  Name:  Brutus Buckeye                                   */
/*  Date:  MM/DD/YYYY                                       */
/*  Assignment:  APP C23-2                                  */
/*  Seat:  XX         Instructor:  XYZ      Time:  HH:MM */

#include  <stdio.h>
#include  <math.h>
int main ( )
{
    int a = 3, x = 10.001, y = 5/4, c = -9;
    float b = 3.14, w = x, z = 3.25;

    a = a + pow(x,y);           /* a = _____*/
    b += w;                     /* b = _____*/
    a = z + ++y;                /* a = _____*/
    b = x++ - 3;                /* b = _____*/
    w = x % (2 * (y + 2));      /* w = _____*/
    b = (z + c) * a;            /* b = _____*/
    c = x--;                    /* c = _____*/
    z *= ++y;                   /* z = _____*/
    y = a / z + x;              /* y = _____*/
}
```

Instructions

Implement

- Write a complete C program **APP_C23_2.cpp** by entering the text included above
- Add a **`printf`** command for each statement so that you can see what the computer calculates.
  - Example:
    - **`printf("w = %f\n", w);`** for floating point values
    - **`printf("a = %i\n", a);`** for integer values.
- Compile, link, and run your program.
  - **NOTE:** When you compile the program below, the compiler will generate several warnings, (e.g. warning: converting to 'int' from 'double'). You may ignore these warnings.

Evaluate

- Compare your calculations with the output from the program. **Do not change your answers**, but explain, where appropriate, why your results were different.

Document

- Create a single PDF that includes your program, the output from running your program, your evaluations to the statements above, and your explanations as to why your results were different.
- Submit your PDF to Carmen according to the DAL.