Instructions

Implement

- Complete the C23-2 assignment which exercises your skills in performing computer arithmetic by hand.
- On the next page is text for a new C program. Evaluate by hand/calculator the C expressions in the order listed and enter your answers in the spaces provided in the comments to the right.
  - Note: For the first three blanks, the value to be filled in the blank should be the final value when execution of the repetition structure is finished.
- After you have manually performed all of the calculations, create a new C program and enter the below text.
- Add a **`printf()`** command for each statement so that you can see what the computer calculates.
  - Use **`%d`** to print an **`int`**, **`%ld`** to print a **`long`**, **`%u`** to print an **`unsigned int`**, and **`%lu`** to print a **`unsigned long`**.
- Compile, link, and run your program

Evaluate

- Compare your calculations with the outputs 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.

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

#include <stdio.h>
#include <math.h>

int main()
{
    int m = 100/3.99, n = 28.01, o = 20, p = 4.0, q = 16, r, s, t;
    int I;
    long L;
    unsigned int uI;
    unsigned long uL;

    for (o=m; o<=n; o++)
    {
        q += p;
    }                                       /* o = _____________ */
                                            /* q = _____________ */

    for (r=m, s=4; r<n+3; r++, p--)
    {
        t = r*p+n+s;
    }                                       /* t = _____________ */

    I = pow(t, q)/2.0-1;                    /* I = _____________ */
    I = I+1;                                /* I = _____________ */

    L = pow(t, q)/2.0-1;                    /* L = _____________ */
    L = L+1;                                /* L = _____________ */

    uI = pow(t, q)/2.0-1;                   /* uI = _____________ */
    uI = uI+1;                              /* uI = _____________ */

    uL = pow(t, q)/2.0-1;                   /* uL = _____________ */
    uL = uL+1;                              /* uL = _____________ */
}
```