```
/*uses my student id number and number of
letters in my last name to comput 5 values */
                                                       16
#include <iostream>
using namespace std;

int main(void)
{
    int studID, answer, numLet;

    studID = 11204649;
    numLet = 7;

    cout << "My last name is Sendejo.\n"
        << "The number of characters is my last name is 7.\n";
    cout << "My Student ID is 11204649.\n\n";

    // first expression
    answer = studID % 2;
    cout << "Expression # 1: " << studID << " % 2 is " << answer << "\n\n";

    // second expression
    answer = studID % numLet;
    cout << "Expression # 2: " << studID << " % " << numLet << " is " << answer <
< "\n\n";

    // third expression
    answer = studID / numLet;
    cout << "Expression # 3: " << studID << " / " << numLet << " is " << (double)
answer << "\n\n";

    //fourth expression
    answer = 1 + 2 + 3 + 4 + 5 + 6 + numLet;
    cout << "Expression # 4: 1 + 2 + 3 + 4 + 5 + 6 + " << numLet << " is " << ans
wer << "\n\n";

    //fifth expression
    answer = 100000 / 99 + (studID - 54321 / ((numLet + 30) * (numLet + 30)));
    cout << "Expression # 5: 100000 / 99 + (" << studID << " - 54321 / ( "
        << numLet << " + 30)^2) is " << (double) answer << "\n";

    return 0;
}



/*-------------------------- Posted Run ----------------------------------
-

My last name is Sendejo.
The number of characters is my last name is 7.
My Student ID is 11204649.

Expression # 1: 11204649 % 2 is 1

Expression # 2: 11204649 % 7 is 1

Expression # 3: 11204649 / 7 is 1.60066e+006

Expression # 4: 1 + 2 + 3 + 4 + 5 + 6 + 7 is 28

Expression # 5: 100000 / 99 + (11204649 - 54321 / ( 7 + 30)^2) is 1.12056e+007
```

```
Press any key to continue . . .

---------------------------------------------------------------------------
-*/
```

```cpp
// CS 2A  - Assignment 2, Option A
// Instructor Solution:
//  Original - Prof. Loceff, Updates, Edits, Annotations: &

// Notes:
//  - No unnecessary vars
//  - Correct typing of vars
//  - Correct use of precedence rules

#include <iostream>
using namespace std;

int main() {
    // It's ok if you don't use a variable for the name. I prefer to, and also to
    // keep all the declarations together in one place, esp. since numLet is closely
    // tied to myName
    string myName = "Rapunzel";
    int numLet = 8;
    int myID = 22222222;
    double dblResult;
    int intResult;

    cout <<"My First Name is " << myName <<endl;
    cout <<"My Student ID is: " << myID <<endl;
    cout <<"The number of letters in my first name is: " <<numLet <<endl <<endl;

    intResult = myID % 7;
    cout <<"Expression #1 --> " << intResult << endl <<endl;

    intResult = numLet % 4;
    cout <<"Expression #2 --> " <<intResult << endl <<endl;

    dblResult = myID / (double) numLet; // Note double prec denominator
    // dblResult = (double) myID / numLet; // is also fine

    cout <<"Expression #3 --> " <<dblResult <<endl <<endl;

    intResult = 1 + 2 + 3 + 4 + 5 + 6 + 7 + numLet;
    cout <<"Expression #4 --> " <<intResult <<endl <<endl;

    // Below, note I make sure the denominators are always in double prec.
    // Also note that I code a/b^2 as a/b/b to save on parenthesizing the
    // denominator. You could parenthesize if you feel it reads better.
    dblResult = 100000.0 / (99 + (myID - 54321.0)/(numLet + 30)/numLet + 30);
    cout <<"Expression #5 --> " <<dblResult <<endl;

    return 0;
}

/* --- Output ---

 My First Name is Rapunzel
 My Student ID is: 22222222
```

```
The number of letters in my first name is: 8

Expression #1 --> 1

Expression #2 --> 0

Expression #3 --> 2.77778e+06

Expression #4 --> 36

Expression #5 --> 1.36893
Program ended with exit code: 0

*/
```