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**Problem 1 (10 pts)**

#include <stdio.h>

int main(void)

{

double x = 8.8;

x--;

int y = (int) x;

x = (int) x % 2;

y -= 5;

y++;

printf("x = %.2f\n", x);

printf("y = %d\n", y);

return 0;

}

If you execute this program, what will be printed? Put you answer in the area provided below.

X=1.00  
y=6

**Problem 2 (10 pts)**

#include <stdio.h>

int main(void)

{

double a = 13.2746322;

double b = -21.7769800021;

printf("%6.2f\n%6.2f\n", a, b);

return 0;

}

If you execute this program, what will be printed? Put you answer in the area provided below.

13.27  
-21.77

**Problem 3 (25 pts)**

Every time someone on the planet Ridiculon sees a number, they like to take the number, divide it by 12.334 and then multiply that result by 5. There are some Ridiculonites that dislike doing math in their head and on paper. Write a program, called ***problem3.c***, that asks the user for a number, does the calculations that are described above and prints the answer to the screen. For example, if the user enters the value 5, the output would look like the following:

Welcome to the Ridiculon Advanced Numerical Terminal

Enter a number: 5

Hmm. A better number would be 2.026917

If the user enters the number -3.2, the output would look like the following:

Welcome to the Ridiculon Advanced Numerical Terminal

Enter a number: -3.2

Hmm. A better number would be -1.297227

**Problem 4 (25 pts)**

Your boss needs some help calculating what employees earned during a given work period. Write a program that asks the user for an employee ID (as an integer), their hourly rate, and the number of hours they worked and then calculates what how much they earned. For example, if the employee worked 8.25 hours at $35 per hour, they earned 8.25\*35 = $288.75. Your output should follow the format below.

Example output 1:

Enter employee ID: 123

Enter hours worked: 6.2

Enter hourly rate: 9

Employee 123 earned $55.80

Example output 2:c

Enter employee ID: 527

Enter hours worked: 40

Enter hourly rate: 23.5

Employee 527 earned $940.00

**Problem 5 (30 pts)**

Write a program, called ***problem5.c***, that asks the user for a number of years (whole years, not fractional years) and calculates the number of years, weeks, and days that corresponds to. You can ignore leap years, so assume we always have 365 days in year.

For example, 368 days would correspond to 1 year, 0 weeks, and 3 days, because 1 year + 3 days is 368 days.

As another example, 1230 days would correspond to 3 years, 19 weeks, and 2 days, because 3 years + 19 weeks + 2 days is 1230 days.

Take the 1230 days example above. Think about how you can take advantage of using the appropriate type of division to get a quotient and remainder. For example, if you divide 1230 by 365, the quotient is 3, and the remainder is 135. The 3 gives us the number of years. How can we use the 135 to calculate the rest of the values?

Below is example output using two different input values. Make sure your output follows the same format below. Don’t worry about the user entering a negative number. You do not need to handle that case.

Example output 1:

Enter the number of days: 742

742 days is equivalent to:

2 years, 1 weeks, 5 days

Example output 2:

Enter the number of days: 4278

4278 days is equivalent to:

11 years, 37 weeks, 4 days

To submit the assignment, put this file, your problem3.c, problem4.c, and problem5.c files in a folder and zip the folder. Submit that zipped folder in Canvas.