CPS 210 Lab 4

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1. My cat, Earl, is 264 ounces. Declare 264 as an integer. Write a program that determines how many pounds and remaining ounces he is. Display your results. (Please don't body shame my cat.)
   - **Hint:** How many ounces are in a pound?

2. It takes roughly 2580 minutes to drive from California to New York. Declare 2580 as an integer. Write a program that converts the minutes into hours. Find the remaining minutes as well. Display your results.
   - **Hint:** How many minutes are in an hour?

3. Write a program to convert the time in seconds to —

   days:hours:minutes:seconds
   - **Ex.** Given 313297 seconds, output is 3:15:1:37
   - **Ex.** given 2071403 seconds, output is 23:23:23:23
   - **Hint:** Start by finding days and work down. Check your calculations by hand before you start the program. How many seconds are in a day, hour, and minute?

4. Write a program that given at least a two digit integer, determines the tens place. Display the tens place.
   - **Ex.** Given 123, tens place is 2 Ex. Given 56, tens place is 5
5. Write a program that given a three-digit integer, determines the sum of the three digits. Display the sum.
   - **Ex.** Given 123, sum is 6. Ex. Given 555, sum is 15

6. Suppose you have a variable amount, that represents dollars and cents in the standard form, for example, **128.85** You need to assign

dollars to an int variable d, and cents to an int variable, c. Write a program to do this.

- **Hint:** This one takes some thought. It's a bit tricky. Remember what casting does. Also, remember we use % on ints.

7. Explain the difference between the two code snippets:

(a)

```
if( x < 2)
        System.out.prinln("Less than 2");
if  (x < 10)
        System.out.println("Less than 10");
if (x < 20)
        System.out.println("Less than 20");
```

(b)

```
if( x < 2)
        System.out.prinln("Less than 2");
else if  (x < 10)
        System.out.println("Less than 10");
else if (x < 20)
        System.out.println("Less than 20");
```

8. Write a program that determines whether a 3-digit number is a palindrome number. A number is a palindrome if it reads the same from right to left and from left to right.

- **Ex.** 121 , 393, 909, 555 are all palindromes

- **Ex.** 123, 456, 980 are not palindromes

- **Hint:** Use modulus to find the ones and hundreds digit. From there, use a conditional statement (if and else) to print "Number is a palindrome" or "Number is not a palindrome depending on if ones == hundreds.

9. Depending on the value of an int variable, t, a space is divided into 5 regions as shown in the picture. Write a Java program that outputs a message giving the correct region for that value of t.