PRPP #1: Binary and Base 10 Converter

Binary and Base 10 Number System Converter

Ah, the very first PRPP problem… Well, now you can get a feel of what these problems are like! This problem will be a fairly easy one, more for the beginner. Enjoy!

Objective: Your objective is to make a converter that will convert a decimal number(base 10) to a binary number(base 2), and vice versa. There will be a prefix of either "b" to represent a binary input, or a "d" to represent a decimal input. Depending on the prefix, it will convert the number to the correct number system format. If the prefix is "b", then it will convert the number inputted to a decimal number. If the prefix is "d", then it will convert the number to binary format. There will be one input line, and one output line.

Rules: You can only use your own code. No outside modules or functions allowed. This means you may not use a module, or other code to do your conversions. For example, if your are using Python, you may not use the built in "bin()" function to convert your decimal number to a base 10 number. You have to write your own code for that.

Examples:

Input(s):	Output(s):
b101	5
d100	1100100
b1111001	121

Notes: Try learning the conversion methods from decimal to binary and vice versa before attempting this problem. It will help a lot to know the method for conversions.

Hints: Try using modulus in your algorithm, it might help. If you don't know what it is, it is basically, a operation which returns a remainder, if applicable. Also, using the len() function, and string manipulation functions might help.