

CS306 – Introduction to Perl
Spring 2006
Homework Assignment #1
Due: January 27th

Guidelines for Submitting Homework

Each homework will have some questions on the beginning followed by one or more programming assignments. When you turn in your homework, please create a zip file with the following structure:

firstname-lastname-hw1.zip

answers.txt	<--- all of the questions answered in this file
program1.pl	<--- the perl source code for the first program
program2.pl	<--- the perl source code for the second program
README	<--- and special instructions for me or the TA to run your programs
etc....	<--- any data files, input files, etc... that your programs need

Your name should also appear somewhere near the top of each program in a comment.

Email this zip file to cs306@cis.uab.edu. **When emailing this file email a copy to yourself so you know the email went through ok and arrived intact as you intended.**]

Homework #1

Question 1. What is the result of $0x21 + 056 + 0b10$? Fully explain what this is doing.

Question 2. Examine the following program.

```
#!/usr/bin/perl
my $name = <STDIN>;
print "Hello $name, how are you?"
```

Before doing anything with this program, try to guess what the output will be. Now run this program. Were you surprised? What was the surprising behavior? Why is that happening? How might we fix this?

Question 3. What is the difference between a list and an array?

Question 4. Suppose you need to create the following array...

```
@names = ("george", "jane", "judy", "elroy");
```

How you would use the `qw()` function to make this cleaner? Pages 60-65 in the text might be helpful.

Program 1. Write a program to ask the user for a number. Then, calculate the circumference of a circle with a radius of that value.

Program 2. Write a program to ask the user to enter a word. Then, compare that word with a hard-coded secret word that you have stored in your program. Tell the user if they have matched or not. Figure out how to make the word match case-insensitively. In other words, `secret` and `SeCreT` should match. Hint: The discoveries in question #2 may also help in this question.

Program 3. Write a program to ask the user for three words. Then print out the three words, one per line, in alphabetical order. Do not use lists or arrays.

Program 4. Rewrite program 3 using a list (i.e. you will have a three-element list holding the words the user has provided you)

Program 5. Create two arrays, `@schools` and `@mascots` and populate these with at least 5 school-mascot pairs (if element 0 of `@schools` is `UAB` then element 0 of `@mascots` should be `Blazers`, etc...). Then write code to print out phrases such as "The `Blazers` are from `UAB`." for all of the schools in your array.