

# COMPUTER SCIENCES

## CS 368-1 (2011 Summer) — Day 2 Homework

Due Thursday, July 14th, at the start of class.

### Description

Write a Perl script that guesses a number that the user has in mind.

### Details

This should be a fairly straightforward exercise that uses basic Perl syntax: loops, conditionals, variables, etc.

The user will run the script, think of a number between 1 and 100, and then the script will repeatedly guess what the number is. For each guess, the user indicates whether it is correct, too high, or too low. A typical interaction might look like this:

```
% homework-02-script
Welcome to the number-guessing game!
Think of a number between 1 and 100.

I guess 50.
Is this (c)orrect, (h)igh, or (l)ow? h
Too high, I'll guess lower.

I guess 25.
Is this (c)orrect, (h)igh, or (l)ow? l
Too low, I'll guess higher.

I guess 42.
Is this (c)orrect, (h)igh, or (l)ow? c
I got it!

%
```

While a binary search is clearly the optimal strategy here, it does not really matter what strategy your script implements **as long as it is guaranteed to find the answer eventually**.

If you use a binary search, there is a simple Perl expression that we have not discussed in class but that may be helpful. Specifically, you can find the integer portion of a floating-point number like this:

```
my $x = int(23 / 5);
```

### Reminders

Start your script the right way! Here is a suggestion:

```
#!/usr/bin/perl
# Homework for CS 368-1
# Assigned on Day 02, 2011-07-12
# Written by [Your Name Here]

use strict;
use warnings;
```

Do the work yourself, consulting reasonable reference materials as needed; any reference material that gives you a complete or nearly complete solution to this problem or a similar one is not OK to use. Asking the instructors for help is OK, asking other students for help is not.

## Hand In

A **printout** of your code on a **single sheet of paper**. Be sure to put your own name in the “[Your Name Here]” part of the code. Identifying your work is important, or you may not receive appropriate credit.