

CSE 305 Programming Languages Spring, 2005

Homework 6

Maximum Points: 15

Due 9:00 am, Monday, March 21, 2005

Professor Shapiro

March 7, 2005

Write the answers to this homework set into a file named `hw6`, and submit it using the `submit` script, by the date and time shown above.

1. (3) Using any Perl reference, determine and state what Perl uses for Boolean values. Cite the source where you found the answer.
2. (3) In the course notes, <http://www.cse.buffalo.edu/~shapiro/Courses/CSE305/2005/notes7.html> it is noted that, “In C, the `typedef` identifier is a synonym for its parent type,” whereas the notes also show that C++ does not allow the assigning of one enumeration typed variable to another. How does C++ deal with types defined with `typedef`? Give the answer you find in some C++ reference material. Cite your source. Write a C++ program to test this information, and include your program and its run in your answers.
3. Some languages provide a convenient way to initialize arrays, such as the C-based languages,

```
int[] squares = {0, 1, 2, 9, 16, 25};
```

However, is the `{ . . . }` notation a general array-valued constructor, allowed on the rhs of assignment statements, or only a special syntax for declaration statements? What kinds of expressions are allowed inside the curly brackets?

For each of the languages listed below, discuss how this array bracket notation may be used and what expressions are allowed within the brackets. List all the resources you use, and use quotation marks appropriately. You may write test programs to experiment with various compilers, in which case you are to include the programs you use, show their runs, and explain what you learn from each. The languages you are to discuss are:

- (a) (3) Java
- (b) (3) C
- (c) (3) C++