Exercises – Constants and Typedef

1. What is the difference between a static local variable and a global variable?
2. Write a function that, when you call it, displays a message telling how many times it has been called: “I have been called 3 times” for instance. Write a main function that calls this function at least 10 times.
3. For the following function and variable declarations place an extern declaration to accomplish each of the following:

char choice;

int flag;

long date, time;

int main()

{

}

double factor;

double watts()

{

}

double thrust()

{

}

file1 file2

char bondType;

double resistance;

double roi()

{

}

double average()

{

}

double variance()

{

}

* 1. Extend the scope of the global variable choice into file2
  2. Extend the scope of the global variable flag into the average function only
  3. Extend the scope of the global variable date in average and variance
  4. Extend the scope of the global variable date into roi only
  5. Extend the scope of the global variable factor into roi only
  6. Extend the scope of the global variable bondtype into file1

1. Write a program that asks the user for a number of gallons and then outputs the equivalent number of litres. There are 3.78533 litres in a gallon. Use a declared constant to store that value.
2. Modify your solutions to questions 8 – 16 of the functions tutorial to make sure the functions are all const correct.