

```
/*  
 * Simple program to demonstrate floating point bug in GNU C++ on  
 * Intel hardware with Linux.  
 *  
 * Compile with:  
 * - g++ -o wtf wtf.cc  
 *  
 * Then run. Be surprised.  
 *  
 * Now compile with:  
 * - g++ -O2 -o wtf wtf.cc  
 *  
 * Now run. Be more surprised.  
 *  
 * From: http://gcc.gnu.org/ml/gcc-help/2001-06/msg00053.html  
 */
```

```
#include <stdio.h>
```

```
int main(int argc, char *argv[])  
{
```

*main*

```
    double amount;  
    double cost;  
    long long iamount;
```

```
    cost = 0.06;  
    amount = cost * 100;  
    iamount = cost * 100;
```

```
    // should print "Amount (double) 6.00000"  
    printf("Amount (double) %lf\n", amount);
```

```
    // should print "Amount (long long) 6"  
    // does it?  
    printf("Integer Amount (long long) %lld\n", iamount);
```

```
    return (0);
```

```
}
```