



Informatik

Übungsstunde

Stepwise Refinement

am Beispiel „Dots and Boxes“

What is the output of the following program?

```
1  #include <iostream>
2  int f (int i) {
3      return i * i;
4  }
5  int g (int i) {
6      return i * f(i) * f(f(i));
7  }
8  void h (int i) {
9      std::cout << g(i) << "\n";
10 }
11 int main () {
12     int i;
13     std::cin >> i;
14     h(i);
15     return 0;
16 }
```

Find 3 mistakes in this program

```
1  # include <iostream>
2  double f (double x) {
3      return g(2.0 * x);
4  }
5  bool g (double x) {
6      return x % 2.0 == 0;
7  }
8  void h () {
9      std::cout << result;
10 }
11 int main () {
12     double result = f(3.0);
13     h();
14     return 0;
15 }
```