3.6. Semantic Errors

The third type of error is the **semantic error**. If there is a semantic error in your program, it will run successfully in the sense that the computer will not generate any error messages. However, your program will not do the right thing. It will do something else. Specifically, it will do what you told it to do.

The problem is that the program you wrote is not the program you wanted to write. The meaning of the program (its semantics) is wrong. Identifying semantic errors can be tricky because it requires you to work backward by looking at the output of the program and trying to figure out what it is doing.

Check your understanding

debug-6-1: Which of the following is a semantic error?

- A. Attempting to divide by 0.
- B. Forgetting a semi-colon at the end of a statement where one is required.
- C. Forgetting to divide by 100 when printing a percentage amount.

Check me Compare me

✔ This will produce the wrong answer because the programmer implemented the solution incorrectly. This is a semantic error.

Activity: 1 -- Multiple Choice (question4_6_1)

debug-6-2: Who or what typically finds semantic errors?

- A. The programmer.
- B. The compiler / interpreter.
- C. The computer.
- D. The teacher / instructor.

Check me Compare me

✔ You must fully understand the problem so the you can tell if your program properly solves it.

Activity: 2 -- Multiple Choice (question4_6_2)

You have attempted 3 of 2 activities on this page

✔ Completed. Well Done!

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