

Correcting code snippets

First I will restate the offending code, underlined. I will then present my reasoning as to why the desired output is not achieved. Finally, I will present a corrected version.

1) double a = 20/16;

System.out.println(a);

Does not output "1.25"

at least one one of the numbers entered should be a floating point number (ex: 20.0).

Otherwise, the expression 20/16 es done as integer division, **then** converted to a double.

Thus, the printed output is '1.0' instead of the desired '1.25'.

corrected code:

double a = 20.0/16.0 //20/16.0 or 20.0/16 are also valid

System.out.println(a)

2) int import = 80;

int export = 40;

System.out.println("Net product gain is " + (import-export) + ".");

Does not output "Net product gain is 40."

Here variable assignment is attempted using reserved words "import" and "export". This will result in compilation errors because the reserved words are used incorrectly. The solution is to simply change the variable names to something valid.

Corrected code:

// num1 and num2 make enough sense...

// I'm not entirely sure what is meant by net product gain anyways

int num1 = 80;

int num2 = 40;

System.out.println("Net product gain is " + (num1-num2) + ".");

3) int c = 10.0/2.0;

System.out.println(c);

Does not output "5" nor "5.0"

You want to print a floating point number? Why did you print an integer. There's your problem, crazy pants!

Corrected code:

double c = 10.0 / 2.0; // what an absolute fool. convert to double

System.out.println(c);

4) String d = "I spent a total of " + 5 + 2 + " days waiting on the order.";

System.out.println(d);

Does not output "I spent a total of 7 days waiting on the order."

Wowee zowee.... In Java, when you use the + operator on a string class variable, it is used for concatenation. In this example, 5 and 7 are converted to strings, then concatenated to the larger string variable 'd' where they are, resulting in '52' instead of the desired result of 7. there are various solutions, but any of them calculate the expression 5 + 2 before the string conversion takes place. I chose to simply wrap the expression in parentheses.

Corrected Code:

String d = "I spent a total of " + (5 + 2) + " days waiting on the order.";

System.out.println(d);

5) String e = "The man approached us to exclaim "It is good to see you!"";

System.out.println(e);

Does not output "The man approached us to exclaim "It is good to see you!"

Escape characters, friend! Haven't we gone over this in an earlier programming course?? Goodness. Remedial. Double quotes end up closing the string. You actually have an invalid String class variable in this instance... The poor file won't even compile :(

Corrected code:

```
String e = "The man approached us to exclaim \"It is good to see you!\"";  
System.out.println(e);
```