

## Practice questions (Output questions)

Suppose that x, y, and z are int variables, and x = 10, y = 15, and z = 20. Determine whether the following expressions evaluate to true or false.

- a. `!(x > 10)`
- b. `x <= 5 || y < 15`
- c. `(x != 5) && (y != z)`
- d. `x >= z || (x + y >= z)`
- e. `(x <= y - 2) && (y >= z) || (z - 2 != 20)`

Suppose that str1, str2, and str3 are string variables, and str1 = "English", str2 = "Computer Science", and str3 = "Programming". Evaluate the following expressions.

- a. `str1 >= str2`
- b. `str1 != "english"`
- c. `str3 < str2`
- d. `str2 >= "Chemistry"`

Suppose that x, y, z, and w are int variables, and x = 3, y = 4, z = 7, and w = 1. What is the output of the following statements?

- a. `cout << "x == y: " << (x == y) << endl;`
- b. `cout << "x != z: " << (x != z) << endl;`
- c. `cout << "y == z - 3: " << (y == z - 3) << endl;`
- d. `cout << "!(z > w): " << !(z > w) << endl;`
- e. `cout << "x + y < z: " << (x + y < z) << endl;`

What is the output of the following C++ code?

```
x = 100;
y = 200;
if (x > 100 && y <= 200)
    cout << x << " " << y << " " << x + y << endl;
else
    cout << x << " " << y << " " << 2 * x - y << endl;
```

Correct the following code so that it prints the correct message.

```
if (score >= 60)
    cout << "You pass." << endl;
else;
    cout << "You fail." << endl;
```

Write C++ statements that output Male if the gender is 'M', Female if the gender is 'F', and invalid gender otherwise.

What is the output of the following program?

```
#include <iostream>
using namespace std;
int main()
{
    int myNum = 10;
    int yourNum = 30;
```

```

if (yourNum % myNum == 3)
{
yourNum = 3;
myNum = 1;
}
else if (yourNum % myNum == 2)
{
yourNum = 2;
myNum = 2;
}
else
{
yourNum = 1;
myNum = 3;
}
cout << myNum << " " << yourNum << endl;
return 0;
}

```

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Suppose that sale and bonus are double variables. Write an if. .else statement that assigns a value to bonus as follows: If sale is greater than \$20,000, the value assigned to bonus is 0.10; If sale is greater than \$10,000 and less than or equal to \$20,000, the value assigned to bonus is 0.05; otherwise, the value assigned to bonus is 0.

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Suppose that overSpeed and fine are double variables. Assign the value to fine as follows: If  $0 < \text{overSpeed} \leq 5$ , the value assigned to fine is \$20.00; if  $5 < \text{overSpeed} \leq 10$ , the value assigned to fine is \$75.00 if  $10 < \text{overSpeed} \leq 15$ , the value assigned to fine is \$150.00; if  $\text{overSpeed} > 15$ , the value assigned to fine is \$150.00 plus \$20.00 per mile over 15.

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