1. Assuming that x is 5, y is 6, and z is 8, indicate whether each of the following relational expressions is true or false:
2. 7 <= (x + 2) // true
3. (2 + x) != y // true
4. x <= (y + 2) // true
5. What the following program display?

#include <iostream>

using namespace std;

int main()

{

int a = 0, b = 2, x = 4, y = 0;

cout << (a == b) << endl;

cout << (a != y) << endl;

cout << (b <= x) << endl;

cout << (y > a) << endl;

cin.get();

return 0;

}

False

False

True

False

1. Write an if statement that performs the following logic: if the variable x is equal to 20, then assign 0 to variable y.

if (x == 20)

y = 0;

1. Write an if statement that performs the following logic: if the variable price is greater than 500, than assign 0.2 to the variable discountRate.

if (price > 500)

discountRate = 0.2;

1. TRUE or FALSE: both of the following if statements perform the same operation.

if (calls == 20)

rate \*= 0.5;

if (calls = 20)

rate \*= 0.5;

False, the second *if* statement is assigning calls the value of 20.

1. Write an if statement that performs the following logic: if the variable sales is greater than 50,000, then assign 0.25 to the commissionRate variable, an assign 250 to the bonus variable.

if (sales > 50000)

commissionRate = 0.25;

bonus = 250;

1. The following code segment is syntactically correct, but it appears to contain a logic error. Can you find the error?

if (interestRate > 0.07)

cout << "This account earns a $10 bonus.\n";

balance += 10.0;

Nope.

1. Write an if/else statement that assign 0.10 to commissionRate unless sales is greater than or equal to 50000.00, in which case it assign 0.20 to commissionRate.

if (sales >= 50000.00)

commisionRate = 0.20;

else

commisionRate = 0.10;

1. If you executed the following code, what would it display if the user enters:
   1. 5?

Zero

* 1. 15?

Zero

Ten

* 1. 30?

Zero

Ten

Twenty

* 1. -1?

int number;

cout << "Enter a number:";

cin >> number;

if (number > 0)

{

cout << "Zero\n";

if (number > 10)

{

cout << "Ten\n";

if(number > 20)

{

cout << "Twenty\n";

}

}

}

1. The following code is used in a bookstore program to determine how many discount coupons a customer gets. Complete the table that appears after the program

int numBooks, numCoupons;

cout << "How many books are being purchased?";

cin >> numBooks;

if (numBooks < 1)

numCoupons = 0;

else if (numBooks < 3)

numCoupons = 1;

else if (numBooks < 5)

numCoupons = 2;

else

numCoupons = 3;

cout << "The number of coupons to give is "

<< numCoupons << endl;

|  |  |
| --- | --- |
| If the customer purchases this many books | This many coupons are given |
| 1 | 1 |
| 3 | 2 |
| 4 | 2 |
| 5 | 3 |
| 10 | 3 |