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)
3. (2 + x) != y
4. x <= (y + 2)
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;

}

1. Write an if statement that performs the following logic: if the variable x is equal to 20, then assign 0 to variable y.
2. 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.
3. 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;

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.
2. 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;

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.
2. If you executed the following code, what would it display if the user enters:
   1. 5?
   2. 15?
   3. 30?
   4. -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 |  |
| 3 |  |
| 4 |  |
| 5 |  |
| 10 |  |