

1. The following code should print "equal" if x and y (both type int) are equal to each other, or else "not equal". Circle at least 10 of the 11 errors (3 points each). **ANSWERS IN BOLD.**

```
If (x = y);
if (x == y)
    cout << 'equal'
    cout << "equal";
else (x != y) then
else if (x != y) //or just "else"
    cout >> not equal.
    cout << "not equal";
```

2. What does the following print? (5 points each)

```
cout << 5.5 + 1 / 2;           5.5
```

```
cout << 10 % 4;               2
```

```
cout << sqrt(pow(3.5, 2));    3.5
```

```
cout << 10 - 3 + 1;          8
```

```
for (int i = 10; i > 4 && i < 20;
     i -= 2)
    cout << i << " ";
```

ANSWER: 10 8 6

```
int j = 5;
do {
    j = j + 1;
    cout << "j";
} while (j < 5);
```

ANSWER: j

```
double x = 2.5;
while (true)
{
    if (x > 15)
        break;
    cout << (x = x * 2) << endl;
}
```

ANSWER: 5 10 20

3. For the code shown, what would be the values of a, b, and c if the user enters the text shown below in bold? (5 points each).

```
int a = 1;
char b = '2';
double c = 3.0;
cin >> a >> b >> c;
```

4.5 x 2

a 4 b '.' c 5.0

123 abc 4.5

a 123 b 'a' c 3.0

4. Write a program that asks the user to enter the radius of a circle and prints its diameter (25 points).

```
// This program asks the user to
// enter the radius of a circle,
// and prints its diameter.
```

```
#include <iostream>
using namespace std;
int main()
{
    double r;
    cout << "Enter radius: ";
    cin >> r;
    cout << "The diameter is "
         << r*2 << endl;
    return 0;
}
```