CS101/ Sample Quiz #3

NAME: ________________________________

1. Consider the following program

```cpp
#include <iostream.h>
void main()
{
    int a, b;
    cin >> a >> b;
    if (a>0)
        if (b>0) cout << b;
        else cout << -b;
    else cout << a;
    cout << endl;
}
```

For each of the following inputs, give the corresponding output:

<table>
<thead>
<tr>
<th>Input</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2</td>
<td>2</td>
</tr>
<tr>
<td>1 -2</td>
<td>2</td>
</tr>
<tr>
<td>-1 2</td>
<td>-1</td>
</tr>
<tr>
<td>-1 -2</td>
<td>-1</td>
</tr>
</tbody>
</table>

2. Mark each of the following logical expressions as true or false. You may assume that we have declared

```cpp
int x, y, z;
x=1; y=2; z=3;
```

<table>
<thead>
<tr>
<th>Expression</th>
<th>True</th>
<th>False</th>
</tr>
</thead>
<tbody>
<tr>
<td>(x&gt;1)</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>(x!=1)</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>(x&gt;1)</td>
<td></td>
<td>(z&lt;10)</td>
</tr>
<tr>
<td>!(x&lt;1) &amp;&amp; (z&gt;4)</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>(x&lt;y) &amp;&amp; (z==3)</td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

3. Write a code fragment to print the message **OK** if the integer variable `x` satisfies

\[ 10 < x \leq 20 \]

and which prints **not OK** if not.

```cpp
if ((10 < x) && (x <= 20)) cout << "OK\n";
else cout << "not OK\n";
```

4. What is the output?

```cpp
#include <iostream.h> void main()
{
    int n=8; int sum=0;
    while ((n>1)&&(sum<15)){
        cout << sum << endl;
        cout << n << endl;
        sum=sum+n;
        n=n-2;
    }
}
```

Output:

0
8
8
6
14
4