What does each of the following `cout` statements print? (3 pts each)

```
cout << 8 / 3;  2
```
```
cout << -11 % 4;  -3
```
```
cout << 12 - 2 - 1;  9
```
```
cout << 1 * 2 + 3 * 4;  14
```
```
cout << 2.9 / 1;  2.9
```
```
string s = "elephant";
cout << s[3];  p
```
```
cout << s.substr(2, 3);  eph
```
```
cout << int(s.size());  8
```
```
cout << s + "s";  elephants
```
```
cout << s + s;  elephantelephant
```

True or false? (3 pts each)

```
'A' == 'a'  false
```
```
3 < 4 && 4 < 3  false
```
```
3 >= 4 || 4 >= 3  true
```
```
!3  false
```
```
1 + 3 != 4  false
```

What do the following print? (5 pts each)

```
for (int i = 10; i < 20; i = i + 2)
cout << i << ' ';  ANSWER: 10 12 14 16 18
```
```
string s = "x";
while (int(s.size()) < 5)
    s = s + s;
cout << s << '\n';  ANSWER: xxxxxxxxx
```
```
int i = 0, j = 0;
do
    {  ANSWER: 5 10
        i = i + 1;
        j = j + 2;
    } while (i < 5);
cout << i << " " << j << endl;
```

Suppose the user types `123 456 789` and presses ENTER (12 keystrokes total). What does the following code print? (5 pts).

```
char c;
int i;
string s;
cin >> c >> i >> s;
cout << c << "\n" << i << "\n"
    << s << "\n";
```
```
ANSWER: 1 23 456
```

Write a program that prompts for and reads two integers and prints the difference as a positive number regardless of the order of input, as in the following two example runs. (30 pts).

```
Enter 2 integers: 3 7
The difference is 4
```
```
Enter 2 integers: 10 2
The difference is 8
```

// ONE POSSIBLE ANSWER
#include <iostream>
using namespace std;
int main()
{
    int a, b;
    cout << "Enter 2 integers: ";
cin >> a >> b;
cout << "The difference is ";
    if (a > b)
        cout << a - b << endl;
    else
        cout << b - a << endl;
    return 0;
}