## Java Class

```
public class MathOperations {
    // Declare native methods
    public native int add(int a, int b);
    public native int subtract(int a, int b);

    static {
        // Load the DLL
        System.loadLibrary("MathOperations");
    }

    public static void main(String[] args) {
        MathOperations mathOps = new MathOperations();
        System.out.println("Addition: " + mathOps.add(5, 3));
        System.out.println("Subtraction: " + mathOps.subtract(5, 3));
    }
}
```

## Header File

```
javac MathOperations.java
javah -jni MathOperations
```

## Native Methods in C/C++

```
#include <jni.h>
#include "MathOperations.h"

JNIEXPORT jint JNICALL Java_MathOperations_add(JNIEnv *env, jobject obj, jint a, jint b) {
    return a + b;
}
```

```
JNIEXPORT jint JNICALL Java_MathOperations_subtract(JNIEnv *env, jobject obj, jint a, jint b) {
    return a - b;
}
```

### C++ Code into a DLL:

```
gcc -shared -o libMathOperations.dll -I"%JAVA_HOME%/include" -I"%JAVA_HOME%/include/win32" MathOperations.c
```

## Output:

### Addition: 8

### Subtraction: 2