## **Bitwise Operations Test**

```
a = ?
                                                        a = ?
int orig = 0xA0A0;
                                                        int orig = 0xF0F0;
int insert = 0x000D;
                                                        int insert = 0x000F;
int a = \text{orig } \& (\text{insert} << 4);
                                                        int a = \text{orig } \& \text{ (insert } << 12);
OR = ?
                                                        XOR = ?
int orig = 0xF0F0;
                                                        int orig = 0x9090;
int insert = 0x0007;
                                                        int insert = 0x0007;
int a = orig \mid (insert << 4);
                                                        int a = orig \mid (insert << 4);
int b = orig \mid (insert << 8);
                                                        int b = orig \mid (insert << 12);
int OR = a \wedge b:
                                                        int XOR = a \wedge b;
result = ?
                                                        result = ?
long value1 = 0xA00AD00D;
                                                        long value1 = 0x2002A00A;
long value 2 = 0xA0A0D0D0:
                                                        long value 2 = 0x2200AA00:
int result = (value1 << 8) ^ (value2 >> 12);
                                                        int result = (value1 << 4) ^ (value2 >> 8);
                                                        result = ?
result = ?
long value 1 = 937;
                                                        long value 1 = 560;
long value 2 = 139;
                                                        long value2 = 277;
int result = (value1 << 12) ^( (value2 >> 8);
                                                        int result = (value1 << 8) & (value2 >> 12);
cupcake = ?
                                                        a = ?
int i = 0x3030;
                                                        long testValue = 0x6006B00B;
int cupcake = i \mid (1 << 8);
                                                        int a = 0:
                                                        if (testValue & (1 << 4))
                                                        a = 1;
                                                        else
                                                        a = 2;
```

```
a = ?
                                                    a = ?, result = ?
long testValue = 0xB00B2002;
                                                    long testValue = 0x40402020;
int a = 0;
                                                    int a = 0;
if (testValue | testValue ^ (1 << 4))
                                                    if ((result = testValue | testValue & testValue
                                                    ^ (1 << 4)))
a = 1;
                                                    a = 1;
}
else
                                                     else
a = 2;
                                                    a = 2;
```