Bitwise Operations Test - Answers

```
a = ?
                                                        a = ?
int orig = 0xA0A0;
                                                        int orig = 0x7070;
int insert = 0x000B;
                                                        int insert = 0x0005;
int a = orig \land (insert << 4);
                                                        int a = \text{orig } \land (\text{insert} << 4);
a = 0xA010
                                                        a = 0x7020
OR = ?
                                                        AND = ?
int orig = 0x7070;
                                                        int orig = 0x5050;
int insert = 0x000D;
                                                        int insert = 0x000B;
int a = orig \mid (insert << 4)
                                                        int a = orig \mid (insert << 4)
int b = orig \mid (insert << 12)
                                                        int b = orig \mid (insert << 12)
int OR = a \& b;
                                                        int AND = a \wedge b;
result = ?
                                                        result = ?
long value 1 = 0x9900DD00;
                                                        long value1 = 0x10103030;
long value 2 = 0x9009D00D;
                                                        long value2 = 0x10013003;
int result = (value1 << 12) ^ (value2 >> 8);
                                                        int result = (value1 << 8) \land (value2 >> 4);
result = ?
                                                        result = ?
long value 1 = 610;
                                                        long value 1 = 738;
long value 2 = 819;
                                                        long value 2 = 998;
int result = (value1 << 12) \land (value2 >> 4);
                                                        int result = (value1 << 12) ^ (value2 >> 4);
cupcake = ?
                                                        a = ?
                                                        long testValue = 0x4004D00D;
int i = 0x4040;
int cupcake = i \land (1 << 8);
                                                        int a = 0;
                                                        if (testValue & (1 << 12))
                                                        a = 1;
                                                        else
                                                        a = 2;
```

```
a = ?
                                                    a = ?, result = ?
long testValue = 0xAA002200;
                                                    long testValue = 0x33002200;
int a = 0;
                                                    int a = 0;
                                                    if ((result = testValue | testValue ^ testValue
if (testValue & testValue ^ (1 << 12))
                                                    & (1 << 12)))
a = 1;
                                                    a = 1;
}
else
                                                    else
a = 2;
                                                    a = 2;
```