Bitwise Operations Test - Answers

```
a = ?
                                                       a = ?
int orig = 0xEE91;
                                                       int orig = 0x8C6D;
int insert = 0x0074;
                                                       int insert = 0x0012;
int a = orig ^ (insert << 15);
                                                       int a = \text{orig } \land (\text{insert} << 10);
a = 0x3AEE91
                                                       a = 0xC46D
XOR = ?
                                                       XOR = ?
int orig = 0x568B;
                                                       int orig = 0xCADF;
int insert = 0x0068;
                                                       int insert = 0x0067;
int a = orig \mid (insert << 13)
                                                       int a = orig \mid (insert << 9)
int b = orig \mid (insert << 14)
                                                       int b = orig \mid (insert << 10)
int XOR = a \mid b;
                                                       int XOR = a \wedge b;
result = ?
                                                       result = ?
long value1 = 0x4C9F91CC;
                                                       long value 1 = 0x97F8BDF7;
long value 2 = 0x76358276;
                                                       long value 2 = 0x1F0517A0;
int result = (value1 << 15) ^ (value2 >> 9);
                                                       int result = (value1 << 5) \land (value2 >> 9);
result = ?
                                                       result = ?
long value 1 = 7232;
                                                       long value 1 = 6032;
long value2 = 12613;
                                                       long value 2 = 13079;
int result = (value1 << 9) \land (value2 >> 6);
                                                       int result = (value1 << 7) ^ (value2 >> 15);
cupcake = ?
                                                       a = ?
                                                       long testValue = 0xE0009060;
int i = 0x8D3C;
int cupcake = i \& (1 << 1);
                                                       int a = 0;
                                                       if (testValue & (1 << 7))
                                                       a = 1;
                                                       else
                                                       a = 2;
```

```
a = ?
                                                    a = ?, result = ?
long testValue = 0x5008200A;
                                                    long testValue = 0x72004A00;
int a = 0;
                                                    int a = 0;
if (testValue & testValue ^ (1 << 14))
                                                    if ((result = testValue ^ testValue & testValue
                                                    | (1 << 3)))
a = 1;
                                                    a = 1;
}
else
                                                    else
a = 2;
                                                    a = 2;
```