Bitwise Operations Test - Answers

```
a = ?
                                                      a = ?
int orig = 0x56D5;
                                                      int orig = 0xD8C3:
int insert = 0x0032;
                                                      int insert = 0x00DF;
int a = \text{orig } \& (\text{insert} << 9);
                                                      int a = \text{orig } \land (\text{insert} << 19);
a = 0x4400
                                                      a = 0x6F8D8C3
OR = ?
                                                      OR = ?
int orig = 0x0EFC;
                                                      int orig = 0x8893;
int insert = 0x009B;
                                                      int insert = 0x0032;
int a = orig \mid (insert << 3)
                                                      int a = orig \mid (insert << 27)
int b = orig \mid (insert << 10)
                                                      int b = orig \mid (insert << 9)
int OR = a \mid b;
                                                      int OR = a \mid b;
OR = 0x26EFC
                                                       OR = 0x9000EC93
result = ?
                                                      result = ?
long value1 = 0xDC67438E;
                                                      long value1 = 0xB7631B97;
long value2 = 0xE39264EC;
                                                      long value 2 = 0xE7705AD9;
int result = (value1 << 7) \land (value2 >> 29);
                                                      int result = (value1 << 5) & (value2 >> 2);
result = 0x33A1C707
                                                      result = 0x284012A0
result = ?
                                                      result = ?
long value 1 = 14184;
                                                      long value 1 = 15774;
long value2 = 12760;
                                                      long value 2 = 8552:
int result = (value1 << 5) & (value2 >> 7);
                                                      int result = (value1 << 23) | (value2 >> 9);
                                                      result = 0xCF000010
result = 0x0
right = ?
                                                      a = ?
int i = 0xDCCD;
                                                      long testValue = 0xA200C900;
int right = i \& (1 << 10);
                                                      int a = 0;
                                                      if (testValue & (1 << 18))
right = 0x400
                                                      a = 1;
                                                      else
                                                      a = 2;
                                                       a = 2
```

```
a = ?
                                                    a = ?, result = ?
long testValue = 0xE0009000;
                                                    long testValue = 0x309000C0;
int a = 0;
                                                    int a = 0;
if (testValue ^ testValue | (1 << 30))
                                                    if ((result = testValue | testValue & testValue
                                                    ^(1 << 21)))
a = 1;
                                                    a = 1;
}
else
                                                    else
a = 2;
                                                    a = 2;
a = 1
                                                    a = 1, result = 0x30B000C0
```