

Bitwise Operations Test - Answers

<p>a = ?</p> <pre>int orig = 0x9090; int insert = 0x000F; int a = orig (insert << 4); ----- a = 0x90F0</pre>	<p>a = ?</p> <pre>int orig = 0xB0B0; int insert = 0x0008; int a = orig ^ (insert << 4); ----- a = 0xB030</pre>
<p>AND = ?</p> <pre>int orig = 0xC0C0; int insert = 0x0008; int a = orig (insert << 4) int b = orig (insert << 8) int AND = a b; ----- AND = 0xC8C0</pre>	<p>XOR = ?</p> <pre>int orig = 0xD0D0; int insert = 0x0009; int a = orig (insert << 8) int b = orig (insert << 4) int XOR = a ^ b; ----- XOR = 0x900</pre>
<p>result = ?</p> <pre>long value1 = 0x11009900; long value2 = 0x10019009; int result = (value1 << 4) & (value2 >> 12); ----- result = 0x10000</pre>	<p>result = ?</p> <pre>long value1 = 0x8008A00A; long value2 = 0x8080A0A0; int result = (value1 << 12) ^ (value2 >> 4); ----- result = 0x8208AA0A</pre>
<p>result = ?</p> <pre>long value1 = 740; long value2 = 354; int result = (value1 << 12) ^ (value2 >> 8); ----- result = 0x2E4001</pre>	<p>result = ?</p> <pre>long value1 = 361; long value2 = 210; int result = (value1 << 4) (value2 >> 12); ----- result = 0x1690</pre>
<p>cupcake = ?</p> <pre>int i = 0x1010; int cupcake = i & (1 << 12); ----- cupcake = 0x1000</pre>	<p>a = ?</p> <pre>long testValue = 0x30031001; int a = 0; if (testValue & (1 << 4)) { a = 1; } else { a = 2; } ----- a = 2</pre>

a = ?

```
long testValue = 0xF0F0B0B0;
int a = 0;
if (testValue ^ testValue | (1 << 8))
{
    a = 1;
}
else
{
    a = 2;
}
-----
a = 1
```

a = ?, result = ?

```
long testValue = 0x10101010;
int a = 0;
if ((result = testValue & testValue | testValue
^ (1 << 8)))
{
    a = 1;
}
else
{
    a = 2;
}
-----
a = 1, result = 269488400
```