The Exclusive Or Immediate instruction performs a logical bit by bit "exclusive or" between a byte in memory and an immediate constant.Operand 1, the target, is a byte in memory and Operand 2, the source, specifies the immediate constant. The byte in memory is exclusive or-ed internally with the immediate constant and contains the final result. The immediate constant is not changed. The table below shows the results of "exclusive or-ing" two bits together.

<table>
<thead>
<tr>
<th>Bit 1</th>
<th>Bit 2</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

This instruction sets the condition code as follows:

0 if all target bits are set to 0. Test this condition with **BZ** or **BNZ**.
1 if any target bit is set to 1. Test this condition with **BM** or **BNM**.

**Examples**

Some Unrelated Exclusive Or Immediates

```assembly
BYTE1 DC X'00'
BYTE2 DC X'FF'
BYTE3 DC X'C3'
```

```assembly
XI BYTE1,'X'12'    BYTE1 = X'12'    Condition Code = 1
XI BYTE1,'X'FF'    BYTE1 = X'FF'    Condition Code = 1
XI BYTE1,'C'A'     BYTE1 = X'C1'    Condition Code = 1
XI BYTE1,B'11110000' BYTE1 = X'F0'    Condition Code = 1
XI BYTE2,'X'12'    BYTE2 = X'ED'    Condition Code = 1
XI BYTE2,'X'FF'    BYTE2 = X'00'    Condition Code = 0
XI BYTE2,'C'A'     BYTE2 = X'3E'    Condition Code = 1
XI BYTE2,B'11110000' BYTE2 = X'0F'    Condition Code = 1
XI BYTE3,'X'12'    BYTE3 = X'D1'    Condition Code = 1
XI BYTE3,'X'FF'    BYTE3 = X'3C'    Condition Code = 1
XI BYTE3,'C'A'     BYTE3 = X'02'    Condition Code = 1
XI BYTE3,B'11110000' BYTE3 = X'33'    Condition Code = 1
```