The And Immediate instruction performs a logical bit by bit "and" 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 "and-ed" internally with the immediate constant and contains the final result. The immediate constant is not changed. The table below shows the results of "anding" two bits together.

<table>
<thead>
<tr>
<th>Bit 1</th>
<th>Bit 2</th>
<th>Bit 1 and Bit 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>1</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 And Immediates**

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

NI  BYTE1,X'12'       BYTE1 = X'00'       Condition Code = 0
NI  BYTE1,X'FF'       BYTE1 = X'00'       Condition Code = 0
NI  BYTE1,C'A'        BYTE1 = X'00'       Condition Code = 0
NI  BYTE1,B'11110000' BYTE1 = X'00'       Condition Code = 0
NI  BYTE2,X'12'       BYTE2 = X'12'       Condition Code = 1
NI  BYTE2,X'FF'       BYTE2 = X'FF'       Condition Code = 1
NI  BYTE2,C'A'        BYTE2 = X'C1'       Condition Code = 1
NI  BYTE2,B'11110000' BYTE2 = X'FF'       Condition Code = 1
NI  BYTE3,X'12'       BYTE3 = X'02'       Condition Code = 1
NI  BYTE3,X'FF'       BYTE3 = X'C3'       Condition Code = 1
NI  BYTE3,C'A'        BYTE3 = X'C1'       Condition Code = 1
NI  BYTE3,B'11110000' BYTE3 = X'C0'       Condition Code = 1
```