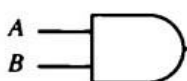

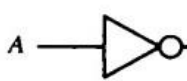

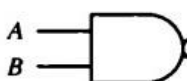

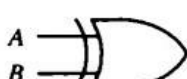
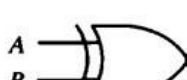


Name	Graphic symbol	Algebraic function	Truth table														
AND	 $x = A \cdot B$ or $x = AB$	<table> <tr> <th>A</th> <th>B</th> <th>x</th> </tr> <tr> <td>0</td> <td>0</td> <td>0</td> </tr> <tr> <td>0</td> <td>1</td> <td>0</td> </tr> <tr> <td>1</td> <td>0</td> <td>0</td> </tr> <tr> <td>1</td> <td>1</td> <td>1</td> </tr> </table>	A	B	x	0	0	0	0	1	0	1	0	0	1	1	1
A	B	x															
0	0	0															
0	1	0															
1	0	0															
1	1	1															
OR	 $x = A + B$	<table> <tr> <th>A</th> <th>B</th> <th>x</th> </tr> <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>1</td> </tr> </table>	A	B	x	0	0	0	0	1	1	1	0	1	1	1	1
A	B	x															
0	0	0															
0	1	1															
1	0	1															
1	1	1															
Inverter	 $x = A'$	<table> <tr> <th>A</th> <th>x</th> </tr> <tr> <td>0</td> <td>1</td> </tr> <tr> <td>1</td> <td>0</td> </tr> </table>	A	x	0	1	1	0									
A	x																
0	1																
1	0																
Buffer	 $x = A$	<table> <tr> <th>A</th> <th>x</th> </tr> <tr> <td>0</td> <td>0</td> </tr> <tr> <td>1</td> <td>1</td> </tr> </table>	A	x	0	0	1	1									
A	x																
0	0																
1	1																
NAND	 $x = (AB)'$	<table> <tr> <th>A</th> <th>B</th> <th>x</th> </tr> <tr> <td>0</td> <td>0</td> <td>1</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> </table>	A	B	x	0	0	1	0	1	1	1	0	1	1	1	0
A	B	x															
0	0	1															
0	1	1															
1	0	1															
1	1	0															
NOR	 $x = (A + B)'$	<table> <tr> <th>A</th> <th>B</th> <th>x</th> </tr> <tr> <td>0</td> <td>0</td> <td>1</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>0</td> </tr> </table>	A	B	x	0	0	1	0	1	0	1	0	0	1	1	0
A	B	x															
0	0	1															
0	1	0															
1	0	0															
1	1	0															
Exclusive-OR (XOR)	 $x = A \oplus B$ or $x = A'B + AB'$	<table> <tr> <th>A</th> <th>B</th> <th>x</th> </tr> <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> </table>	A	B	x	0	0	0	0	1	1	1	0	1	1	1	0
A	B	x															
0	0	0															
0	1	1															
1	0	1															
1	1	0															
Exclusive-NOR or equivalence	 $x = (A \oplus B)'$ or $x = A'B' + AB$	<table> <tr> <th>A</th> <th>B</th> <th>x</th> </tr> <tr> <td>0</td> <td>0</td> <td>1</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> </table>	A	B	x	0	0	1	0	1	0	1	0	0	1	1	1
A	B	x															
0	0	1															
0	1	0															
1	0	0															
1	1	1															

Digital logic gates.