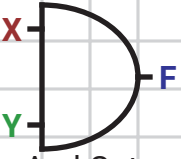
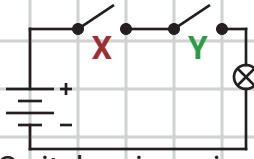
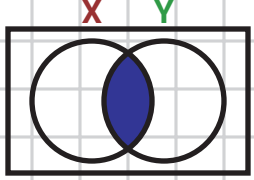
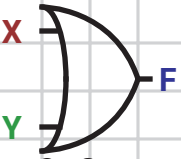
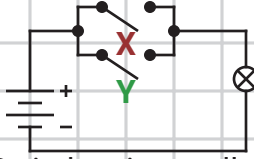
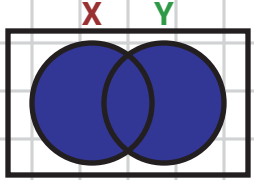
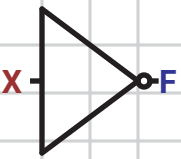
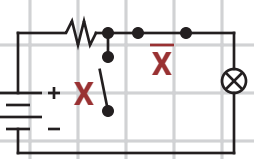
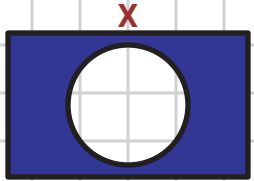
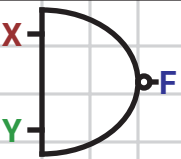
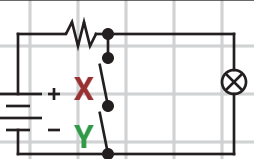
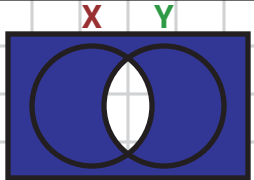
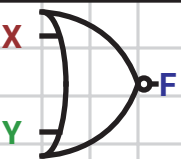
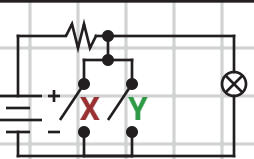
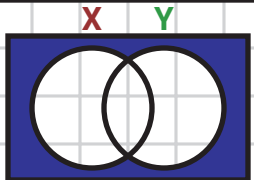
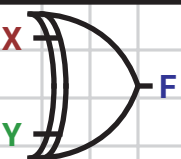
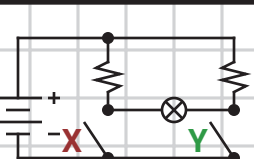
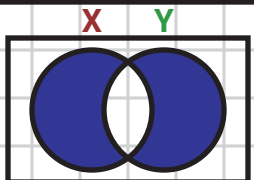
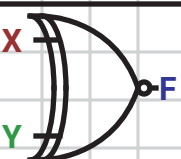
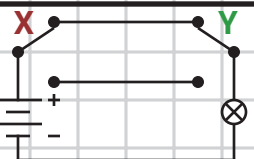
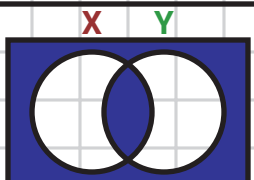
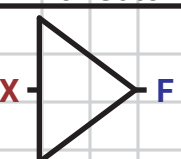
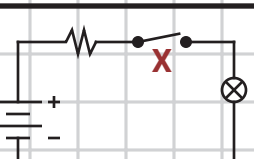
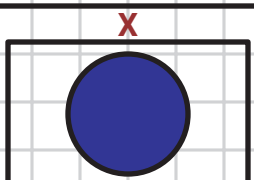


Name	Algebraic Equation	Truth Table	Gate Symbol	Switch Circuit	Venn Diagram															
AND	$F=XY$ $X \cdot Y$ $X * Y$ $X \wedge Y$	<table border="1"> <tr><td>X</td><td>Y</td><td>F</td></tr> <tr><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>1</td><td>0</td></tr> <tr><td>1</td><td>0</td><td>0</td></tr> <tr><td>1</td><td>1</td><td>1</td></tr> </table>	X	Y	F	0	0	0	0	1	0	1	0	0	1	1	1	 <p>And Gate</p>	 <p>Switches in series</p>	
X	Y	F																		
0	0	0																		
0	1	0																		
1	0	0																		
1	1	1																		
OR	$F=X+Y$ $X \vee Y$	<table border="1"> <tr><td>X</td><td>Y</td><td>F</td></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>	X	Y	F	0	0	0	0	1	1	1	0	1	1	1	1	 <p>Or Gate</p>	 <p>Switches in parallel</p>	
X	Y	F																		
0	0	0																		
0	1	1																		
1	0	1																		
1	1	1																		
NOT	$F=\bar{X}$ X' $\neg X$ $\neg X$	<table border="1"> <tr><td>X</td><td>F</td></tr> <tr><td>0</td><td>1</td></tr> <tr><td>1</td><td>0</td></tr> </table>	X	F	0	1	1	0	 <p>Inverter</p>											
X	F																			
0	1																			
1	0																			
NAND	$F=\overline{XY}$ $X \uparrow Y$ $(XY)'$ $X \nwedge Y$	<table border="1"> <tr><td>X</td><td>Y</td><td>F</td></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>	X	Y	F	0	0	1	0	1	1	1	0	1	1	1	0	 <p>Nand Gate</p>		
X	Y	F																		
0	0	1																		
0	1	1																		
1	0	1																		
1	1	0																		
NOR	$F=\overline{X+Y}$ $X \downarrow Y$ $(X+Y)'$ $X \nabla Y$	<table border="1"> <tr><td>X</td><td>Y</td><td>F</td></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>	X	Y	F	0	0	1	0	1	0	1	0	0	1	1	0	 <p>Nor Gate</p>		
X	Y	F																		
0	0	1																		
0	1	0																		
1	0	0																		
1	1	0																		
XOR	$F=X \oplus Y$ $X \underline{\vee} Y$	<table border="1"> <tr><td>X</td><td>Y</td><td>F</td></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>	X	Y	F	0	0	0	0	1	1	1	0	1	1	1	0	 <p>Xor Gate</p>		
X	Y	F																		
0	0	0																		
0	1	1																		
1	0	1																		
1	1	0																		
XNOR	$F=\overline{X \oplus Y}$ $(X \oplus Y)'$	<table border="1"> <tr><td>X</td><td>Y</td><td>F</td></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>	X	Y	F	0	0	1	0	1	0	1	0	0	1	1	1	 <p>Xnor Gate</p>		
X	Y	F																		
0	0	1																		
0	1	0																		
1	0	0																		
1	1	1																		
BUF	$F=X$	<table border="1"> <tr><td>X</td><td>F</td></tr> <tr><td>0</td><td>0</td></tr> <tr><td>1</td><td>1</td></tr> </table>	X	F	0	0	1	1	 <p>Buffer</p>											
X	F																			
0	0																			
1	1																			

