

Math Sheet

Name _____ Score _____ / 16 Teacher _____ Date _____

Bitwise Operations

Apply each operator using the stated fixed width.

1.
$$\begin{array}{r} 0101 \\ \text{XOR } 1000 \\ \hline \end{array}$$

4 bit

2.
$$\begin{array}{r} 0011 \\ \text{NOR } 1101 \\ \hline \end{array}$$

4 bit

3.
$$\begin{array}{r} 0011 \\ \text{NXOR } 0001 \\ \hline \end{array}$$

4 bit

4.
$$\begin{array}{r} 1110 \\ \text{XOR } 1001 \\ \hline \end{array}$$

4 bit

5.
$$\begin{array}{r} 1111 \\ \text{NXOR } 1101 \\ \hline \end{array}$$

4 bit

6.
$$\begin{array}{r} 0000 \\ \text{XOR } 0101 \\ \hline \end{array}$$

4 bit

7.
$$\begin{array}{r} 1010 \\ \text{NAND } 1011 \\ \hline \end{array}$$

4 bit

8.
$$\begin{array}{r} 1010 \\ \text{AND } 0101 \\ \hline \end{array}$$

4 bit

9.
$$\begin{array}{r} 1011 \\ \text{NOR } 1001 \\ \hline \end{array}$$

4 bit

10.
$$\begin{array}{r} 0111 \\ \text{OR } 1001 \\ \hline \end{array}$$

4 bit

11.
$$\begin{array}{r} 1111 \\ \text{NAND } 0111 \\ \hline \end{array}$$

4 bit

12.
$$\begin{array}{r} 1010 \\ \text{OR } 1010 \\ \hline \end{array}$$

4 bit

13.
$$\begin{array}{r} 1110 \\ \text{NAND } 0001 \\ \hline \end{array}$$

4 bit

14.
$$\begin{array}{r} 0101 \\ \text{AND } 0001 \\ \hline \end{array}$$

4 bit

15.
$$\begin{array}{r} 1010 \\ \text{AND } 0000 \\ \hline \end{array}$$

4 bit

16.
$$\begin{array}{r} 1011 \\ \text{OR } 0011 \\ \hline \end{array}$$

4 bit

Math Sheet

Name _____ Score _____ / 16 Teacher _____ Date _____

Bitwise Operations

Answer key

Apply each operator using the stated fixed width.

1.

$$\begin{array}{r} \\ XOR \\ \hline \end{array}$$

4 bit

9.

$$\begin{array}{r} \\ NOR \\ \hline \end{array}$$

4 bit

2.

$$\begin{array}{r} \\ NOR \\ \hline \end{array}$$

4 bit

10.

$$\begin{array}{r} \\ OR \\ \hline \end{array}$$

4 bit

3.

$$\begin{array}{r} \\ NXOR \\ \hline \end{array}$$

4 bit

11.

$$\begin{array}{r} \\ NAND \\ \hline \end{array}$$

4 bit

4.

$$\begin{array}{r} \\ XOR \\ \hline \end{array}$$

4 bit

12.

$$\begin{array}{r} \\ OR \\ \hline \end{array}$$

4 bit

5.

$$\begin{array}{r} \\ NXOR \\ \hline \end{array}$$

4 bit

13.

$$\begin{array}{r} \\ NAND \\ \hline \end{array}$$

4 bit

6.

$$\begin{array}{r} \\ XOR \\ \hline \end{array}$$

4 bit

14.

$$\begin{array}{r} \\ AND \\ \hline \end{array}$$

4 bit

7.

$$\begin{array}{r} \\ NAND \\ \hline \end{array}$$

4 bit

15.

$$\begin{array}{r} \\ AND \\ \hline \end{array}$$

4 bit

8.

$$\begin{array}{r} \\ AND \\ \hline \end{array}$$

4 bit

16.

$$\begin{array}{r} \\ OR \\ \hline \end{array}$$

4 bit