## In-Class Worksheet

## Discrete Math \& Functional Programming- CSCI 054- Spring 2024

Instructor: Osborn

| binary | decimal | hexadecimal |
| :--- | :---: | :---: |
| 11001 |  |  |
|  | 1782 |  |
|  |  | $0 x 3 \mathrm{~A}$ |

$\forall j, k \in \mathbb{Z}, j$ and $k$ are odd if and only if $j k$ is odd.

Claim: $1=0$.
"Proof": Suppose that $1=0$. Then

$$
\begin{aligned}
1 & =0 \\
0 \cdot 1 & =0 \cdot 0 \\
0 & =0
\end{aligned}
$$

Since clearly $0=0$, we conclude that $1=0$.

What is the truth table for the proposition $\neg p \Rightarrow$ False?

