$$\begin{array}{c|cccc} \mathbb{Z}^*(3) & 1 & 2 \\ \hline 1 & 1 & 2 \\ 2 & 2 & 1 \\ \end{array}$$

$$\begin{array}{c|ccccc} \mathbb{Z}^*(4) & 1 & 3 \\ \hline 1 & 1 & 3 \\ 3 & 3 & 1 \\ \end{array}$$

$$\begin{array}{c|cccc}
\mathbb{Z}^*(6) & 1 & 5 \\
\hline
1 & 1 & 5 \\
5 & 5 & 1
\end{array}$$

$ \begin{array}{r} \mathbb{Z}^{*}(9) \\ 1 \\ 2 \\ 4 \\ 5 \\ 7 \\ 8 \end{array} $	1	2	4	5	7	8
1	1	2	4	5	7	8
2	2	4	8	1	5	7
4	4	8	7	2	1	5
5	5	1	2	7	8	4
7	7	5	1	8	4	2
8	8	7	5	4	2	1

 $\mathbb{Z}^*(3)$, $\mathbb{Z}^*(4)$, $\mathbb{Z}^*(5)$, $\mathbb{Z}^*(6)$, and $\mathbb{Z}^*(9)$ are all cyclic, generated by 2, 3, 2, 5, and 2, respectively. $\mathbb{Z}^*(8)$ is not cyclic: every element is its own inverse so there is no element of order greater than 2.