Typesetting Ancient Egyptian Numerals Using LaTeX- Usage.

1. The commands to produce a table of ancient Egyptian symbols and their values:

```
\begin{center}
Ancient Egyptian Symbols and their Hindu-Arabic values:
\begin{tabular}[t]{|c|c|c|c|c|c|c|}
\hline
\egmil{1}&\eghuntho{1}&\egtentho{1}&\egtho{1}&\eghun{1}&\egten{1}&\egone{1}\\
\hline
1,000,000&100,000&10,000&1,000&100&10&1\\
\hline
\end{tabular}\\
\end{center}
```

Output:

Ancient Egyptian Symbols and their Hindu-Arabic values:

𓁨	𓆼	𓂭	𓍢	𓏤	∩		
1,000,000	100,000	10,000	1,000	100	10	1

2. The command to render 5,867,934 in ancient Egyptian:

```
\egyptify{5}{8}{6}{7}{9}{3}{4}
```

Output: 𓁨𓁨𓁨𓁨𓁨𓆼𓆼𓆼𓆼𓆼𓆼𓆼𓆼𓂭𓂭𓂭𓂭𓂭𓂭𓍢𓍢𓍢𓍢𓍢𓍢𓍢𓏤𓏤𓏤𓏤𓏤𓏤𓏤𓏤𓏤∩∩∩|||||

3. The command requires seven arguments, even if not all seven types of symbols will be used:
Here is the command to render 52,010: \egyptify{0}{0}{5}{2}{0}{1}{0}

```
\egyptify{0}{0}{5}{2}{0}{1}{0}
```

Output: 𓂭𓂭𓂭𓂭𓂭𓍢𓍢∩

4. When setting addition and subtraction problems in ancient Egyptian, I like to group like symbols vertically, so I create a table, and render the number of symbols needed in each cell. The formatting is all taken care of by LaTeX. Here are the commands for vertically rendering the addition problem 1,287,857 + 3,537,455

```
\begin{tabular}[t]{rcccccc}
& \egmil{1}& \eghuntho{2}& \egtentho{8}& \egtho{7}& \eghun{8}& \egten{5} & \egone{7}\\
$+$& \egmil{3}& \eghuntho{5}& \egtentho{3}& \egtho{7}& \eghun{4}& \egten{5}& \egone{5}\\
\hline
\end{tabular}\\
```

Output:

	𓁨	𓆼𓆼	𓂭𓂭𓂭𓂭𓂭𓂭𓂭𓂭	𓍢𓍢𓍢𓍢𓍢𓍢𓍢	𓏤𓏤𓏤𓏤𓏤𓏤𓏤𓏤	∩∩∩∩∩	|||||||
+	𓁨𓁨𓁨	𓆼𓆼𓆼𓆼𓆼	𓂭𓂭𓂭	𓍢𓍢𓍢𓍢𓍢𓍢𓍢	𓏤𓏤𓏤𓏤	∩∩∩∩∩	|||||

Typesetting Ancient Egyptian Numerals Using LaTeX- The command definitions.

```
\usepackage{multido} %Allows repetition of LaTeX commands

\newcommand{\egmil}[1]{
\multido{\i=1+1}{#1}{\includegraphics[scale=.1]{egyptian/egypt_person.eps}
\hspace{0.5mm}}}

\newcommand{\eghuntho}[1]{
\multido{\i=1+1}{#1}{\includegraphics[scale=.1]{egyptian/egypt_fish.eps}
\hspace{0.5mm}}}

\newcommand{\egtentho}[1]{
\multido{\i=1+1}{#1}{\includegraphics[scale=.1]{egyptian/egypt_finger.eps}
\hspace{0.5mm}}}

\newcommand{\egtho}[1]{
\multido{\i=1+1}{#1}{\includegraphics[scale=.1]{egyptian/egypt_lotus.eps}
\hspace{0.5mm}}}

\newcommand{\eghun}[1]{
\multido{\i=1+1}{#1}{\includegraphics[scale=.1]{egyptian/egypt_scroll.eps}
\hspace{0.5mm}}}

\newcommand{\egten}[1]{
\multido{\i=1+1}{#1}{\includegraphics[scale=.1]{egyptian/egypt_heel.eps}
\hspace{0.5mm}}}

\newcommand{\egone}[1]{
\multido{\i=1+1}{#1}{\includegraphics[scale=.1]{egyptian/egypt_stroke.eps}
\hspace{0.5mm}}}

\newcommand{\egyptify}[7]{
 \multido{\i=1+1}{#1}{\includegraphics[scale=.1]{egyptian/egypt_person.eps}
 \hspace{0.5mm}}
 \multido{\i=1+1}{#2}{\includegraphics[scale=.1]{egyptian/egypt_fish.eps}
 \hspace{0.5mm}}
 \multido{\i=1+1}{#3}{\includegraphics[scale=.1]{egyptian/egypt_finger.eps}
 \hspace{0.5mm}}
 \multido{\i=1+1}{#4}{\includegraphics[scale=.1]{egyptian/egypt_lotus.eps}
 \hspace{0.5mm}}
 \multido{\i=1+1}{#5}{\includegraphics[scale=.1]{egyptian/egypt_scroll.eps}
 \hspace{0.5mm}}
 \multido{\i=1+1}{#6}{\includegraphics[scale=.1]{egyptian/egypt_heel.eps}
 \hspace{0.5mm}}
 \multido{\i=1+1}{#7}{\includegraphics[scale=.1]{egyptian/egypt_stroke.eps}
 \hspace{0.5mm}}
 \hspace{.5mm}
}
```