

In the arithmetic problem given below, distinct letters represent distinct digits in base 10. Find digit values for which the addition is correct or prove that there is no such assignment of digit values:

$$\begin{array}{r}
 T \quad H \quad R \quad E \quad E \\
 + \quad \quad F \quad I \quad V \quad E \\
 \hline
 E \quad I \quad G \quad H \quad T
 \end{array}$$