

No Fail or Forgiveness Method of Division

Example: $6 \overline{)496}$

$$\begin{array}{r} 82r4 \\ 6 \overline{)496} \end{array}$$

① Add a line to the right side

$$6 \overline{)496} \Big|$$

② Make an educated guess put to the right

$$6 \overline{)496} \Big| \underline{50}$$

③ Multiply the guess by the divisor (in this example: $50 \cdot 6$) and put the answer below the dividend & subtract

$$\begin{array}{r} 6 \overline{)496} \Big| 50 \\ -300 \\ \hline 196 \end{array}$$

④ Keep repeating until the answer is zero on the left **OR** less than the divisor

less than the divisor so I STOP!

$$\begin{array}{r} 6 \overline{)496} \Big| 50 \\ -300 \\ \hline 196 \Big| 30 \\ -180 \\ \hline 16 \Big| 2 \\ -12 \\ \hline 4 \end{array}$$

→ this is the remainder

⑤ Add all #'s on the right side of the line
 $(50 + 30 + 2) = 82$

The answer is:

82 remainder 4