

The Many Faces of Division

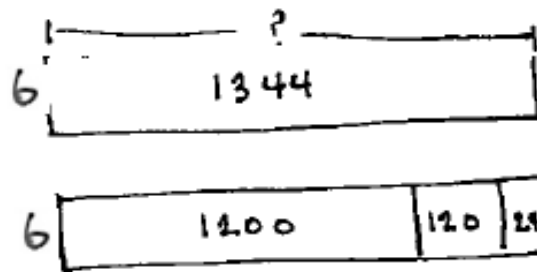
Standard Algorithm:

The standard or typical method of long division.

$$\begin{array}{r}
 224 \\
 6 \overline{) 1,344} \\
 \underline{-12} \\
 14 \\
 \underline{-12} \\
 24 \\
 \underline{-24} \\
 0
 \end{array}$$

Area Model & Number Bonds:

Shows the area as the dividend (total amount) broken up into the divisor (width) and solving for the quotient (length). The area model allows for numbers to be decomposed into more manageable components that are divisible by the divisor. The number bond shows how the dividend is broken up into groups in order to divide. Those groups or addends are put back together to give you your original number (dividend).



$$\begin{array}{c}
 \begin{array}{c} \text{1344} \\ \swarrow \quad \searrow \\ \text{1200} \quad \text{120} \quad \text{24} \end{array} \\
 (1200 \div 6) + (120 \div 6) + (24 \div 6) \\
 = 200 + 20 + 4 \\
 = 224
 \end{array}$$