

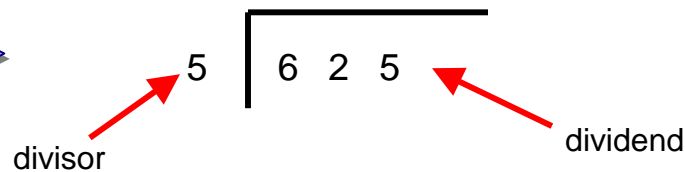
The Process of Division

Dividing Using Paper and Pencil

When using the pencil and paper method to divide numbers, follow these steps.

1. Place the numbers so that the dividend is under the division sign and the divisor is in front of the division sign as shown below.

Example



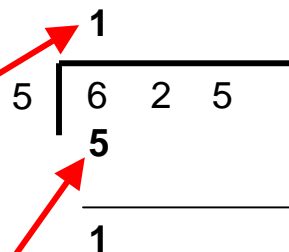
2. Ask yourself how many times (think multiplication) will the divisor go into the dividend without going over.

$$5 \times 1 = 5$$
$$5 \times 2 = 10 \text{ (too high)}$$

Five will divide into six one time without going over.

Place **1** directly above 6 in 625, since only the six was being divided by the divisor of five. This number now becomes part of the answer to the question.

Five, the product of 5×1 , is placed under 6 in 625 and is subtracted from the six, resulting in 1.



If the divisor will not divide into the value of the dividend during **Step 2**, place a **zero** (0) in the quotient and bring down the next digit from the dividend.

3. Bring down the next digit in the dividend.

$$\begin{array}{r} 1 \\ 5 \overline{) 625} \\ \underline{5} \\ 12 \end{array}$$

4. Now divide 5 into 12. Estimate how many times 5 will divide into 12.

$$5 \times 2 = 10$$

$$5 \times 3 = 15 \text{ (too high)}$$

5. Repeat **Steps 2** and **3** until the final answer is reached.

$$\begin{array}{r} 12 \\ 5 \overline{) 625} \\ \underline{- 5} \\ 12 \\ \underline{- 10} \\ 25 \end{array}$$

$5 \times 2 = 10$

2 is place in the quotient.

10 is placed under the dividend.

Subtracting $12 - 10$ results in 2. The five is brought down.

$$\begin{array}{r}
 \overline{) 625} \\
 \underline{5} \\
 12 \\
 \underline{10} \\
 25 \\
 \underline{25} \\
 0
 \end{array}$$

$5 \times 5 = 25$
 5 is placed in the quotient.
 25 is placed under the dividend.
 Subtract $25 - 25$

$\Rightarrow 625 \div 5 = 125$