

DIVISION

(Long Division by 2 Digit Numbers)

The method of division by 2 digit numbers is same as the method to divide a number by a single digit number. Since the divisor is a 2 digit number now, we begin the division by combining the first two digits of the dividend.

For example:

Divide 12 by 147.

We can't divide 1 by 12. So we will take the First 2 digits of the dividend to carry out the division.

$12 < 14$ which means that now there are enough tens to divide.

Divide! 12 goes into 14 one time. $14 \div 12 = 1$ R 2

Write 1 in above 4 in the quotient place



$$\begin{array}{r} 1 \\ 12 \overline{) 147} \end{array}$$

Multiply! Multiply divisor and quotient.

$12 \times 1 = 12$. Write 12 under 14.



$$\begin{array}{r} 1 \\ 12 \overline{) 147} \\ \underline{12} \end{array}$$

Subtract! $14 - 12 = 2$



$$\begin{array}{r} 1 \\ 12 \overline{) 147} \\ \underline{- 12} \\ 1 \end{array}$$

Now $2 < 12$ (divisor) so we'll bring down the next digit of the dividend which is 4.

Now repeat the process again.

Divide: 12 goes into 27 2 times.

Write 2 in the quotient place.

Multiply: $12 \times 2 = 24$

Subtract: $27 - 24 = 3$



$$\begin{array}{r} 12 \\ 12 \overline{) 147} \\ \underline{- 12} \downarrow \\ 27 \\ \underline{- 24} \\ 3 \end{array}$$

Now $3 < 12$ and there is no more digit left in the dividend to bring down.

So,

Remainder = 3 AND Quotient = 12

Same procedure goes for division without remainder.