

## Basic Long Division

Calculate  $692 \div 4$ .

*Solution:*

$$\begin{array}{r} 173 \leftarrow \text{Quotient} \\ \text{Divisor} \rightarrow 4 \overline{)692} \leftarrow \text{Dividend} \\ \underline{-4} \\ 29 \\ \underline{-28} \\ 12 \\ \underline{-12} \\ 0 \leftarrow \text{Remainder} \end{array}$$

Thus  $692 \div 4 = 173$ .

**Note:**

- As division is the inverse of multiplication, start by dividing 4 into the column furthest to the left.
- $6 \div 4 = 1$  and 2 is the remainder.
- Clearly, the remainder 2 is 20 (i.e. 2 tens); and we can carry this into the tens column to make 29. This is written as shown below.

$$\begin{array}{r} 1 \\ 4 \overline{)692} \\ \underline{-4} \\ 29 \end{array}$$

- Now,  $29 \div 4 = 7$  with a remainder of 1. Clearly, the remainder of 1 is 10 (i.e. 10 units) and we carry this into the units column to make 12. This is written as:
- Finally,  $12 \div 4 = 3$ , which is illustrated in the solution shown above.

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## QUESTIONS????

$$\begin{array}{r} 17 \\ 4 \overline{)692} \\ \underline{-4} \\ 29 \\ \underline{-28} \\ 12 \end{array}$$

What is the value of the 4 that you are subtracting from the 6 in 692?

Actually you are subtracting  $\underline{600} - \underline{400} = 200$

Answer = 400

