DIGITS - VALUE OF A DIGIT IN A NUMBER

- The symbols 0,1,2,3,4,5,6,7,8,9 are called digits.

- A number is made of different digits.

  Example: 235, 478, etc

- The value of each digit depends of its place in the number.

  Example: in the number 126, the value of the digit 2 is 20

PLACE VALUE

Number	PLACE VALUE of the red digit	VALUE of the red digit
257	ones	7
257	tens	50
257	hundreds	200
387,641	thousands	7,000
387,641	tens of thousands	80,000
456,641	hundreds of thousands	400,000
4,236,654,118	millions	6,000,000
4,236,654,118	tens of millions	30,000,000
4,236,654,118	hundreds of millions	200,000,000
4,236,654,118	billions	4,000,000,000

EXPANDED FORM OF A NUMBER - HISTORY

Any number can be written in expanded form:

Example

$$3{,}254 = 3 \times 1{,}000 + 2 \times 100 + 5 \times 10 + 4$$

The number system we use today is called “decimal system”, or “base 10 system”, or “Hindu-Arabic number system”. It originated in ancient India about 3,000 BCE and spread throughout Europe particularly through trade.

Another common number system was the duodecimal number system (base 12) used particularly by the Babylonians (modern day Iraq) which explains why our days have 24 hours.