

Chapter- 5

Place Value and Face Value

STUDY NOTES

- Place value
- Face value
- Abacus
- Expanded form
- Compact form.

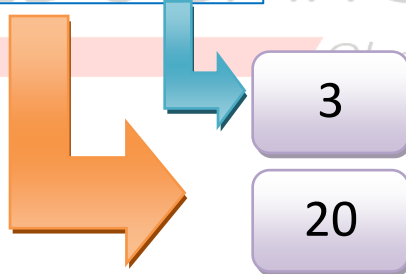
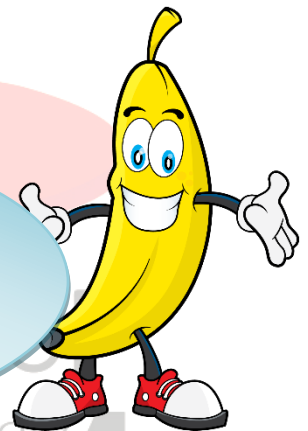
Place Value

Place value is the **value** of each digit in a number. For example, the 5 in 53 represents 5 tens, or 50; however, the 35 represents 5 ones, or 5.

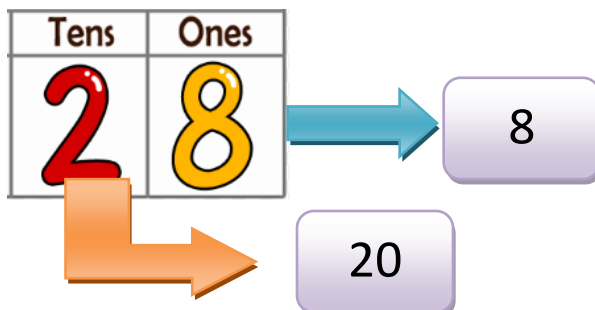
Example: Let us consider the number 23.

Tens	Ones
2	3

Here there are 3 ones and 2 tens. So, place value of 3 is $3 \times 1 = 3$ and Place value of 2 is $2 \times 10 = 20$



Example: Place value of 2 and 8 in 28.



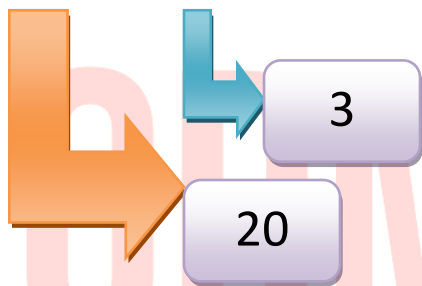
Face Value

The face value of a digit in a number is the digit itself. It is not determined by its position in the number.

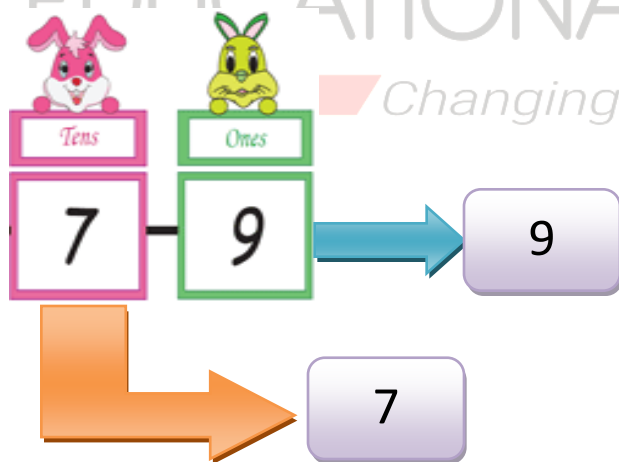
Example: Let us consider 23 again.

Tens	Ones
2	3

Here the face value of 3 ones is 3 and the face value of 2 tens is 2 not 20.



Example: Face value of 7 and 9 in 79.



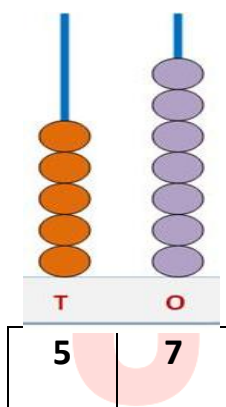
Place Value Using Abacus

An abacus has spikes that represent places of digits in a given number. Spikes are named from right to left as **O**, **T**, **H**, and so on. **O** stands for ones, **T** stands for tens and **H** stands for Hundreds.

The place value of a digit at tens place = the digit \times 10.

The place value of a digit at ones place = the digit \times 1.

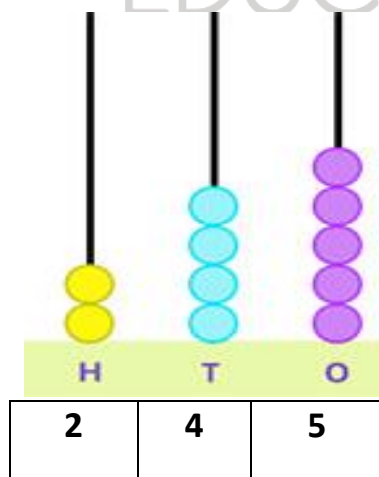
Example: Consider number 57



5 is in tens place, so the value of 5 is $5 \times 10 = 50$

7 is in ones place, so the value of 7 is $7 \times 1 = 7$

Example: Consider number 245



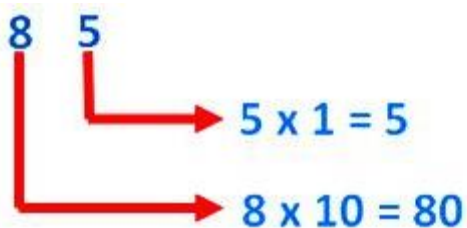
2 is in hundreds place, so the value of 2 is $2 \times 100 = 200$

4 is in tens place, so the value of 4 is $4 \times 10 = 40$

Numbers in Expanded Form

The expanded form of a number can be obtained by breaking and showing the value of each digit in the number.

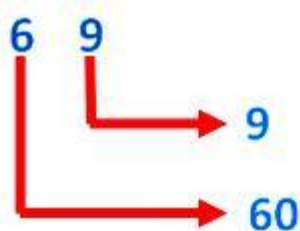
Example: Write the expanded form of **85**



Expanded form of
number $85 = 80 + 5$



Example: Write the expanded form of **69**



Expanded form of
number $69 = 60 + 9$

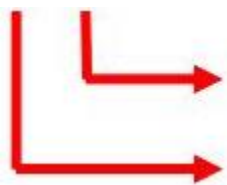


Numbers in Compact form

The compact form of a number is written using the digits 0-9 according to their place value. We can also say it as a short form.

Example: Write $70 + 8$ in Compact form.

70	+	8
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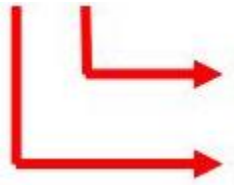
8 ones

7 tens

Compact form of $70 + 8 = 78$

Example: Write $30 + 0$ in Compact Form.

$$30 + 0$$

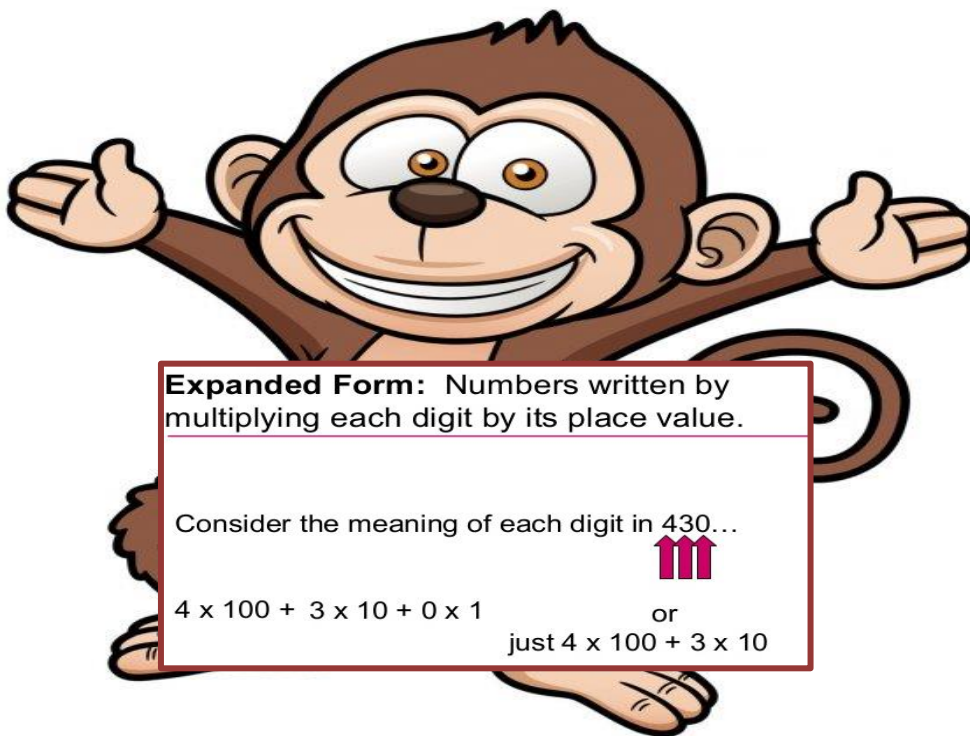


0 one

3 tens

Compact form of $\underline{30} + \underline{0} = 30$

Facts of expanded form



My Math Poem

Place Value Poem

The **ONES** are on the right
The **TENS** are next in line.
Move **ONE** more to the left,
For the **HUNDREDS** every time.



MIND MAP

