Chapter- 5

Place Value and Face Value

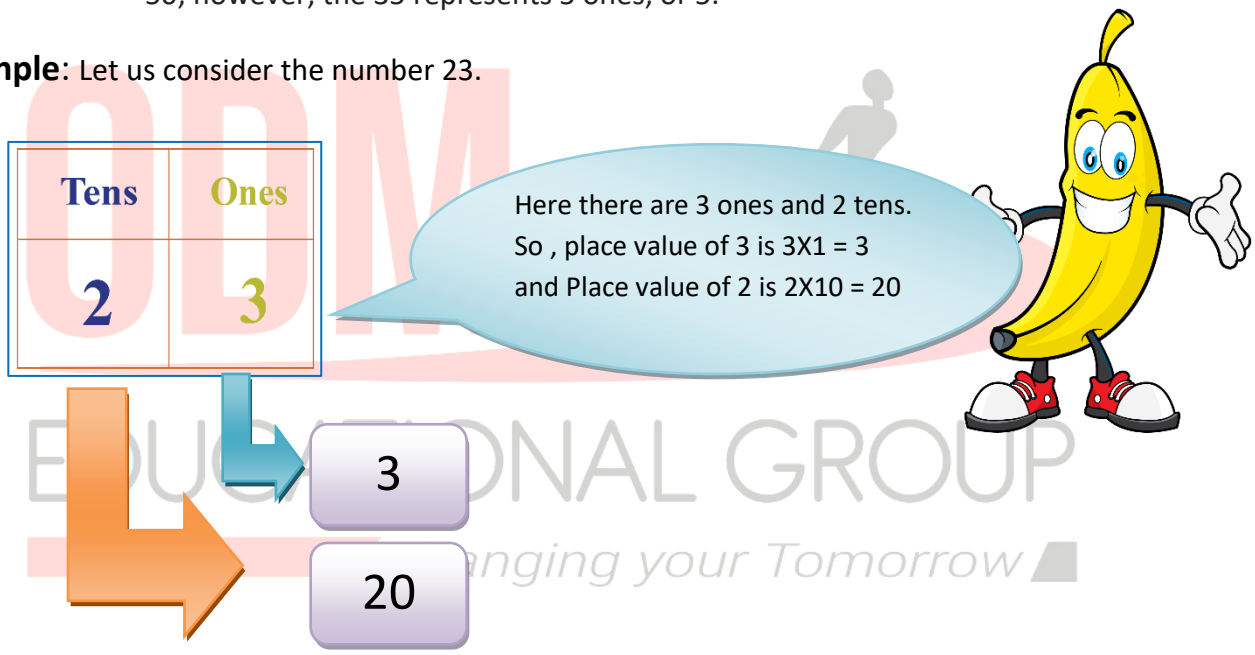
STUDY NOTES

LEARNING OBJECTIVE: Enable the learners to know the concepts of place value, face value, abacus, expanded form and compact form.

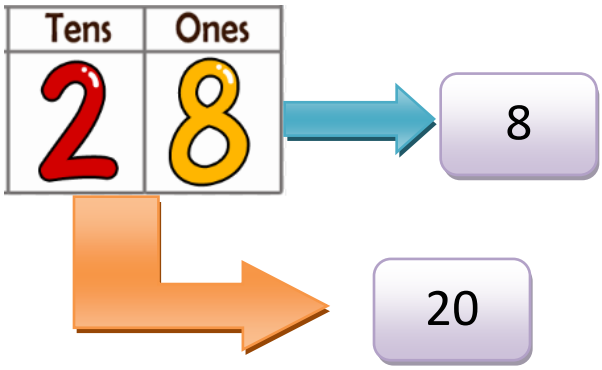
Place Value

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.



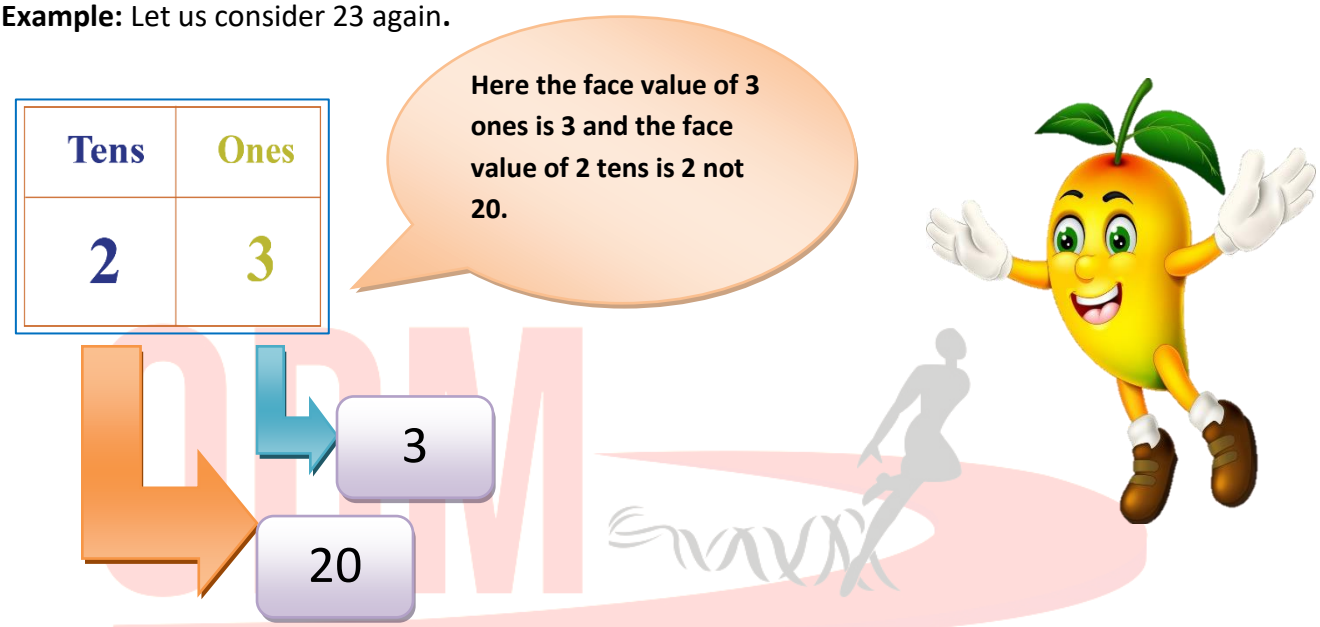
Example: Place value of 2 and 8 in 28.



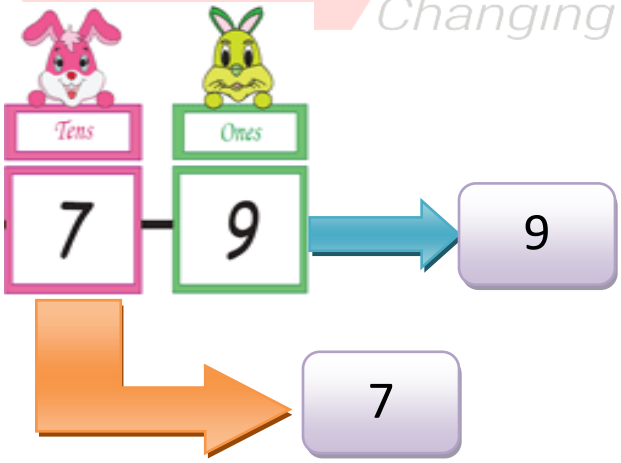
Face Value

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.



Example: Face value of 7 and 9 in 79.



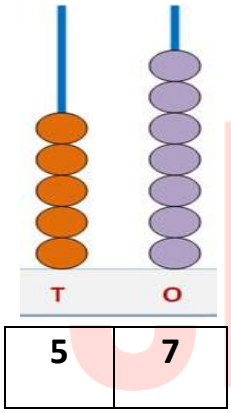
Place Value Using Abacus

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 X 10.

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

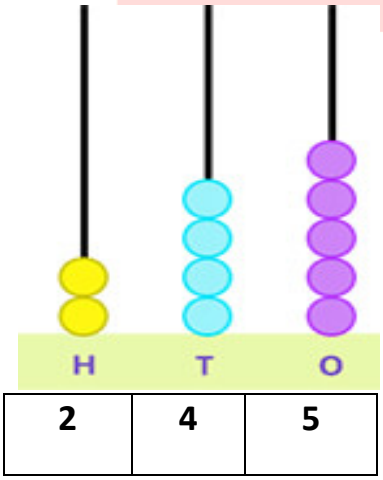
Example: Consider number 57



5 is in tens place, so the value of 5 is 5 X 10 = 50

7 is in ones place , so the value of 7 is 7 X 1 = 7

Example: Consider number 245



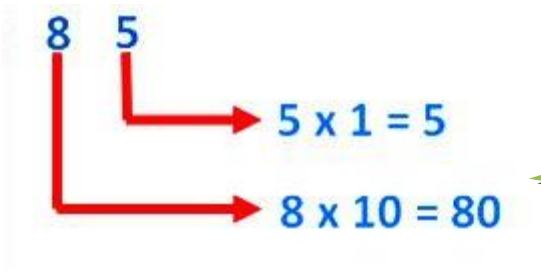
2 is in hundreds place ,so the value of 2 is 2 X 100 = 200

4 is in tens place, so the value of 4 is 4 X 10 = 40

Numbers in Expanded Form

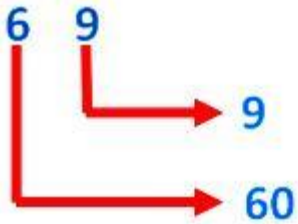
The expanded form of a number can be obtained by breaking and showing the value of each digit in the number.

Example: Write the expanded form of 85



Expanded form of number 85 = 80 + 5

Example: Write the expanded form of 69

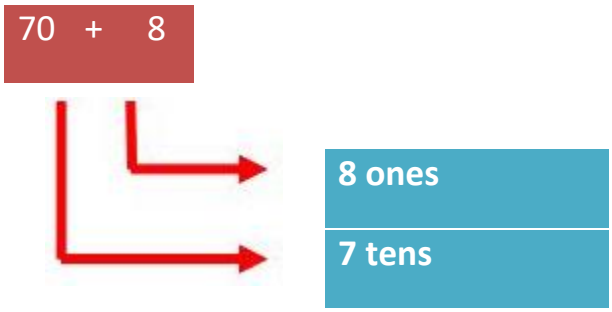


Expanded form of number 69 = 60 + 9

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.

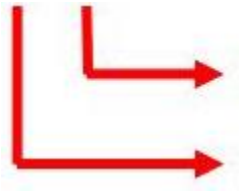
Example: Write 70 + 8 in Compact form.



Compact form of 70 + 8 = 78

Example: Write 30 + 0 in Compact Form.

30 + 0

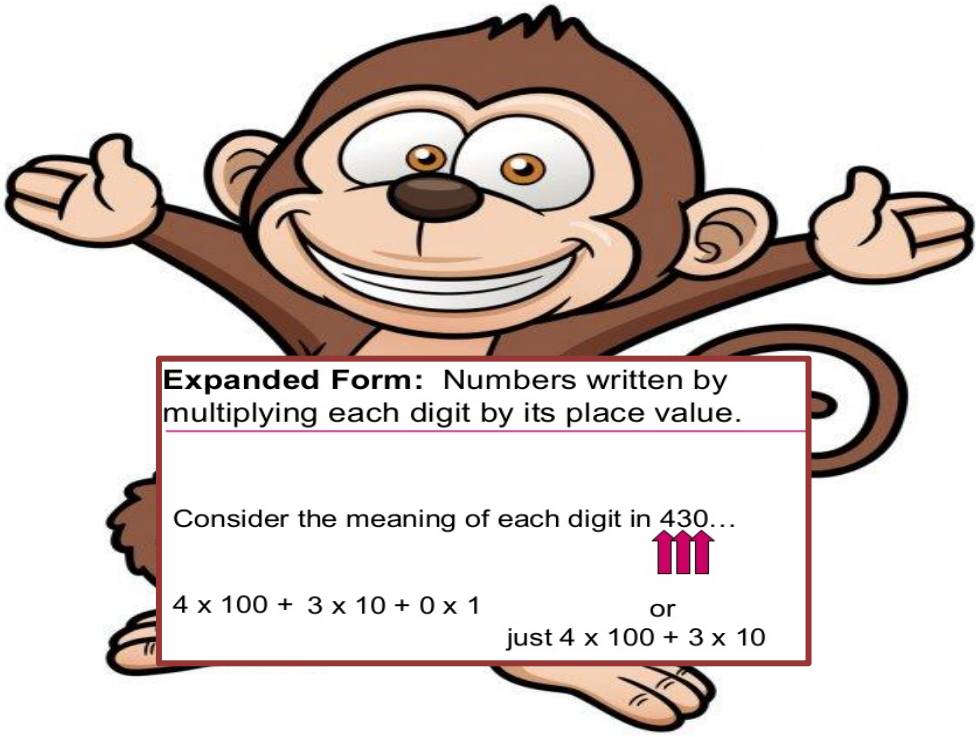


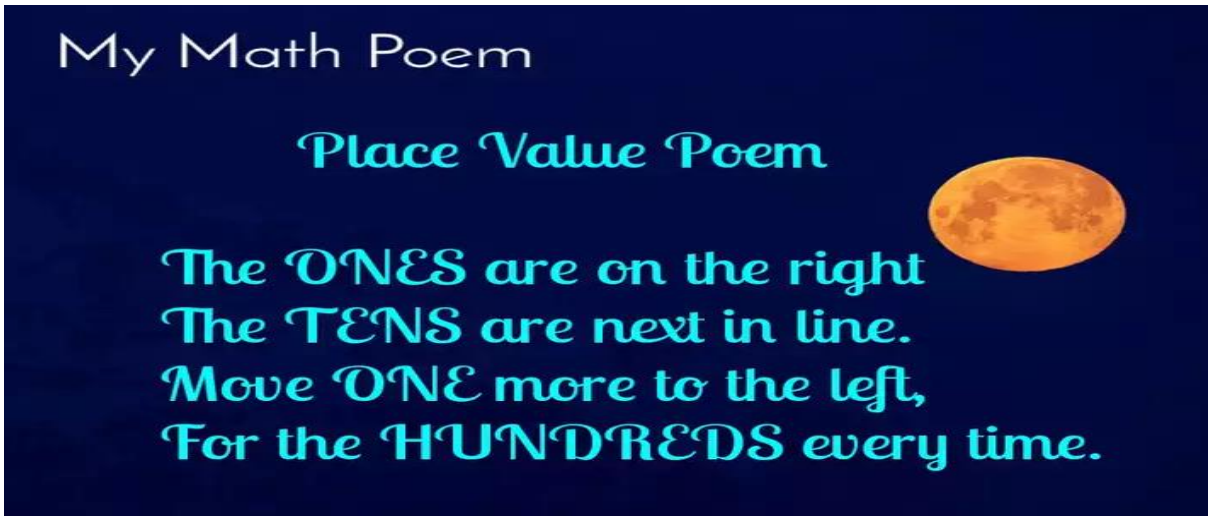
0 one

3 tens

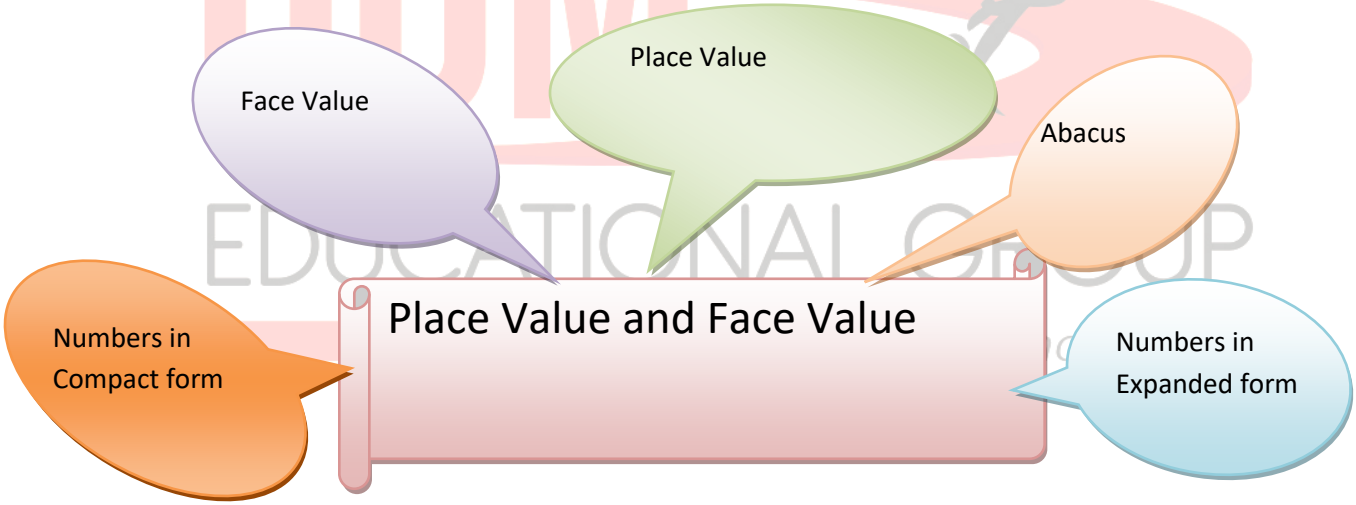
Compact form of 30 + 0 = 30

Facts of expanded form





Chapter at a glance



LEARNING OUTCOME: The learner is now able to Know the difference between Place Value and Face value, Abacus, and the difference between Expanded form and Compact Form.