

## Chapter – 4

**ADDITION****STUDY NOTES****LEARN ABOUT:**

- **PROPERTIES OF ADDITION**
- **ADDITION OF LARGE NUMBERS**
- **WORD PROBLEMS ON ADDITION**

❖ **PROPERTIES OF ADDITION:****1. Order property or commutative property-**

Sum of two numbers remain the same even if the order, in which they are added, is changed.

**EXAMPLE-**

$$384475 + 29580 = 414055$$

$$29580 + 384475 = 414055$$

$$\text{Thus, } 384475 + 29580 = 29580 + 384475$$

**2. Addition of zero-**

If '0' is added to a number, we get the number itself.

**EXAMPLE-**

$$89764 + 0 = 89764$$

**3. Grouping property or associative property-**

In whatever order three or more numbers are grouped for the purpose of addition, their sum remains the same.

**EXAMPLE-**

$$(532492 + 2600781) + 48900 = 532492 + (2600781 + 48900)$$

$$(532492 + 2600781) + 48900 = 3133273 + 48900$$

$$\text{Also, } 532492 + (2600781 + 48900) = 532492 + 2649681 = 3182173$$

❖ **ADDITION OF LARGE NUMBERS:**

We have already learnt to add numbers less than one lakh. Adding large numbers is quite similar.

**STEPS-**

1. Arrange the numbers in columns. Ones under ones, tens under tens and so on.
2. Add the digits in each column. Always start with ones place. Take the carry over (if any) to the next column and add it with the digits in that column. Continue till the last column.

**(Note: The numbers being added are called addends.  
The result of addition is called the sum.)**

**EXAMPLE-**  
Add 6,26,405    1,08,842    and    2,15,456.

**SOLUTION-**

	②	①	①	①	
6.	2	6.	4	0	5
1.	0	8.	8	4	2
+ 2.	1	5.	4	5	6
9.	5	0.	7	0	3

Changing your Tomorrow

**Common error – Always carry over the tens place not the ones place number.**

❖ **WORD PROBLEMS ON ADDITION:**

**5 steps** should be followed while solving the story sums.

1. Read the question and find out the known facts.
2. Find out the unknown facts (what do you need to know).
3. Find out which operation you will follow to solve the problem.
4. Solve the problem and write the answer in sentence.
5. Check the answer.

## SOLVING MATH WORD PROBLEMS



1. What do I know?
2. What do I need to know?
3. What STRATEGY or OPERATION will I use to solve this Problem?
4. Solve the Problem!
5. Check your Answer!

There are some key words for addition word problems.



### EXAMPLE-

There are 14603 hens in a poultry farm. Due to some diseases 12625 hens died. How many are left?

### SOLUTION-

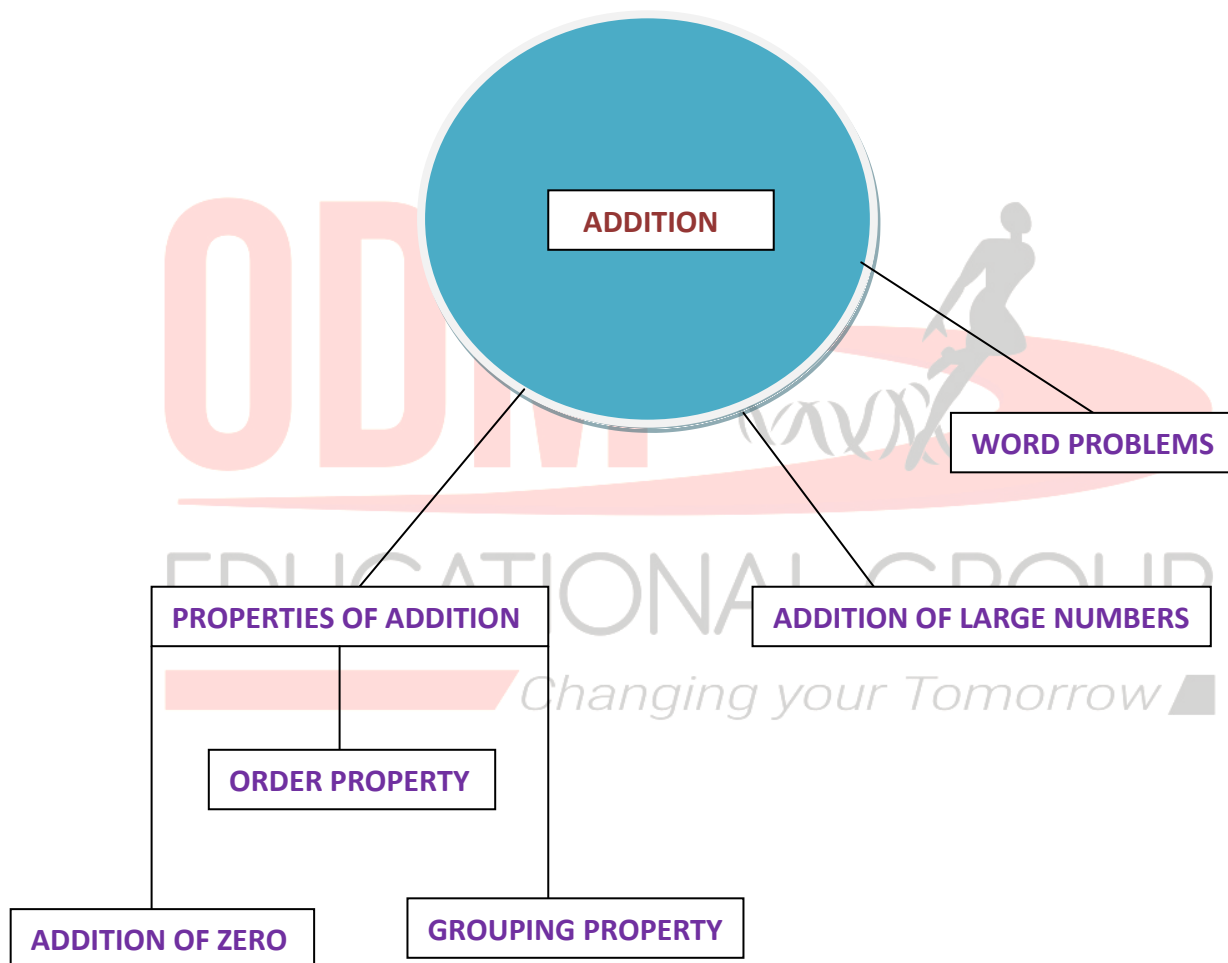
Total hens in the poultry farm = 14,603

Number of hens died = 12,625

Remaining hens =  $14,603 - 12,625 = 1,978$

Thus, **1,978** hens were left.

# MIND MAP



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