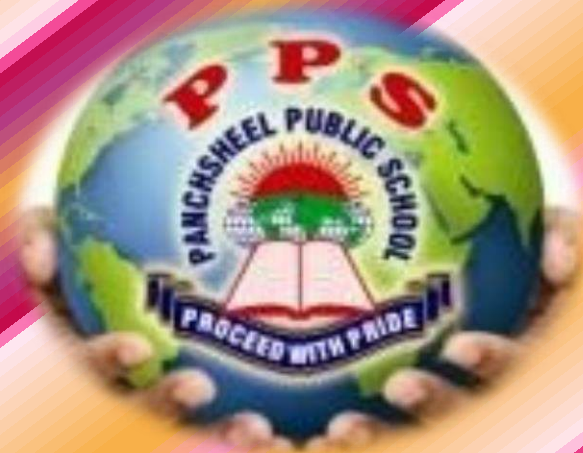


PANCHSHEEL PUBLIC SCHOOL
SESSION 2024-25
ENTRANCE EXAMINATION



CLASS - 5
SYLLABUS
STUDY MATERIAL
SAMPLE PAPER

MATHEMATICS

SYLLABUS

Class 5

1. Common counting

(place value, successor and predecessor)

2. Integral operation

(addition, subtraction, multiplication, division)

3. Various factors

(multiple and factors)

CHAPTER – 1

COMMON COUNTING

Counting numbers are the set of numbers that we use to learn how to count. 1,2,3 ...and so on.

They are also called natural numbers—maybe since they feel natural to us because they are naturally the first numbers we learn.



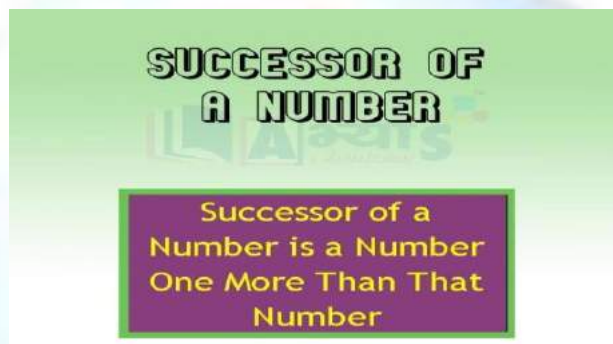
Place Value:

Describes the position or place of a digit in a number. Each digit has a place in a number. When we represent the number in general form, the position of each digit will be expanded.

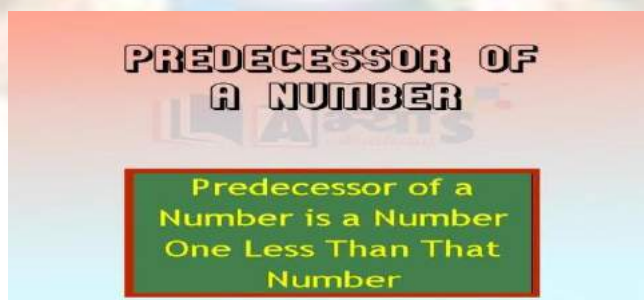
Those positions start from a unit place or we also call it one's position.

Indian Place Value Chart		
Periods	Figures	Places
Crores	Ten Crores 10,00,00,000	TC
	Crores 1,00,00,000	C
Lakhs	Ten Lakhs 10,00,000	TL
	Lakhs 1,00,000	L
Thousands	Ten Thousands 10,000	T-TH
	Thousands 1,000	TH
Ones	Hundreds 100	H
	Tens 10	T
	Ones 1	O

Successor: The number that comes just after a given number is called successor.



Predecessor: The number that comes just before a given number is called predecessor.



Successor and predecessor are used for the terms/numbers that are just after or just before any term/number, respectively.

Successor and Predecessor of a Number

©math-only-math.com ©math-only-math.com

PREDECESSOR	NUMBER	SUCCESSOR
-------------	--------	-----------

$$(7148 - 1) = 7147 \xleftarrow{\text{Predecessor}} 7148 \xrightarrow{\text{Successor}} (7148 + 1) = 7149$$

©math-only-math.com

©math-only-math.com

$$(8950 - 1) = 8949 \xleftarrow{\text{Predecessor}} 8950 \xrightarrow{\text{Successor}} (8950 + 1) = 8951$$

©math-only-math.com

©math-only-math.com

$$(7620 - 1) = 7619 \xleftarrow{\text{Predecessor}} 7620 \xrightarrow{\text{Successor}} (7620 + 1) = 7621$$

©math-only-math.com

©math-only-math.com

$$(12499 - 1) = 12498 \xleftarrow{\text{Predecessor}} 12499 \xrightarrow{\text{Successor}} (12499 + 1) = 12500$$

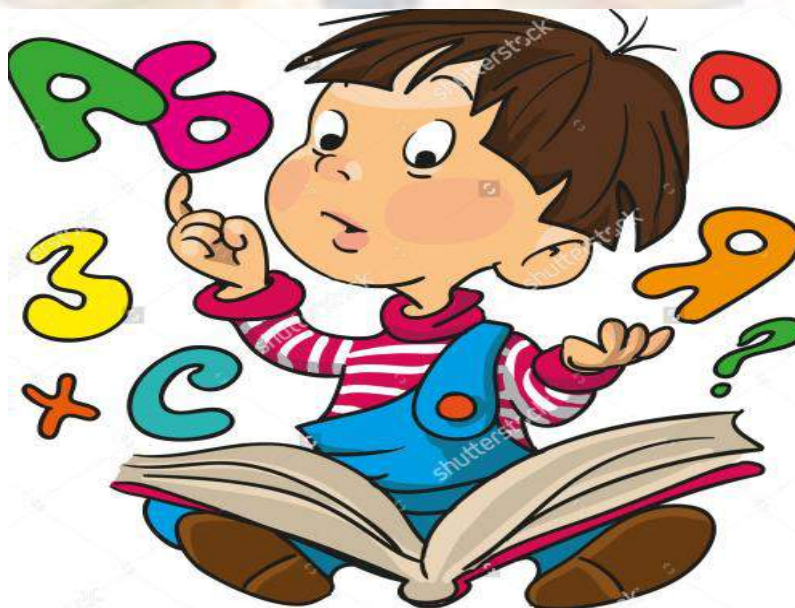
©math-only-math.com

To find the successor of a number add 1 to the given number.

To find the predecessor of a number, subtract 1 from the given number.

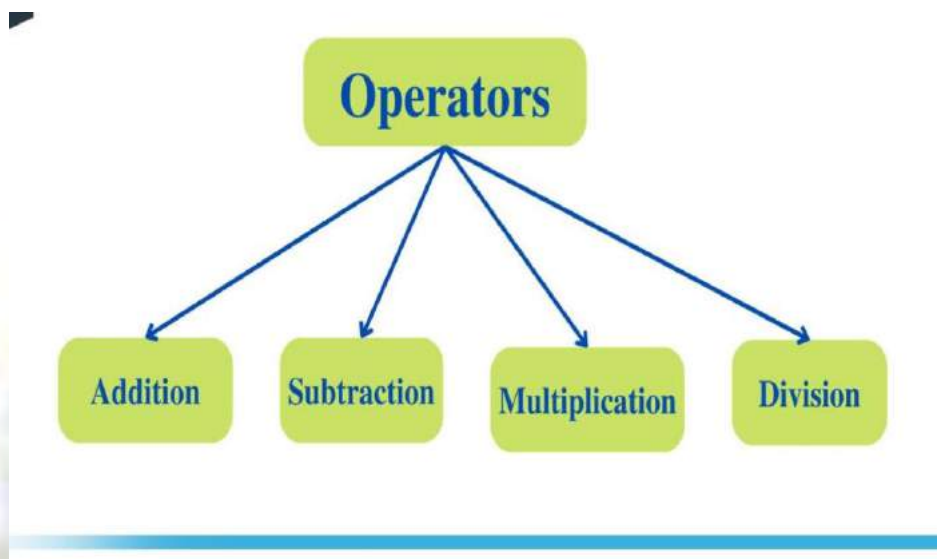
©math-only-math.com

©math-only-math.com



CHAPTER -2 INTEGRAL OPERATION

In addition and subtraction of integers, we will learn how to add and subtract integers with the same sign and different signs.



Addition

To add the numbers together, the sign “+” is used. The numbers we are going to add are called “addends” and the result that we are going to obtain is called “sum”.

The addition process involves two or more addends which can be any digit number.

$$\begin{array}{r} 1. \quad \quad 4 \ 0 \ 6 \\ \quad + \ 3 \ 1 \ 3 \\ \hline \text{Ans.} \ 7 \ 1 \ 9 \end{array}$$

$$\begin{array}{r} 3. \quad \quad 6 \ 5 \ 3 \\ \quad + \ 3 \ 3 \ 3 \\ \hline \text{Ans.} \ 9 \ 8 \ 6 \end{array}$$

$$\begin{array}{r} \textcircled{4} \ 15 \\ 5. \quad \quad 5 \ 5 \ 7 \\ \quad - \ 2 \ 7 \ 7 \\ \hline \text{Ans.} \ 2 \ 8 \ 0 \end{array}$$

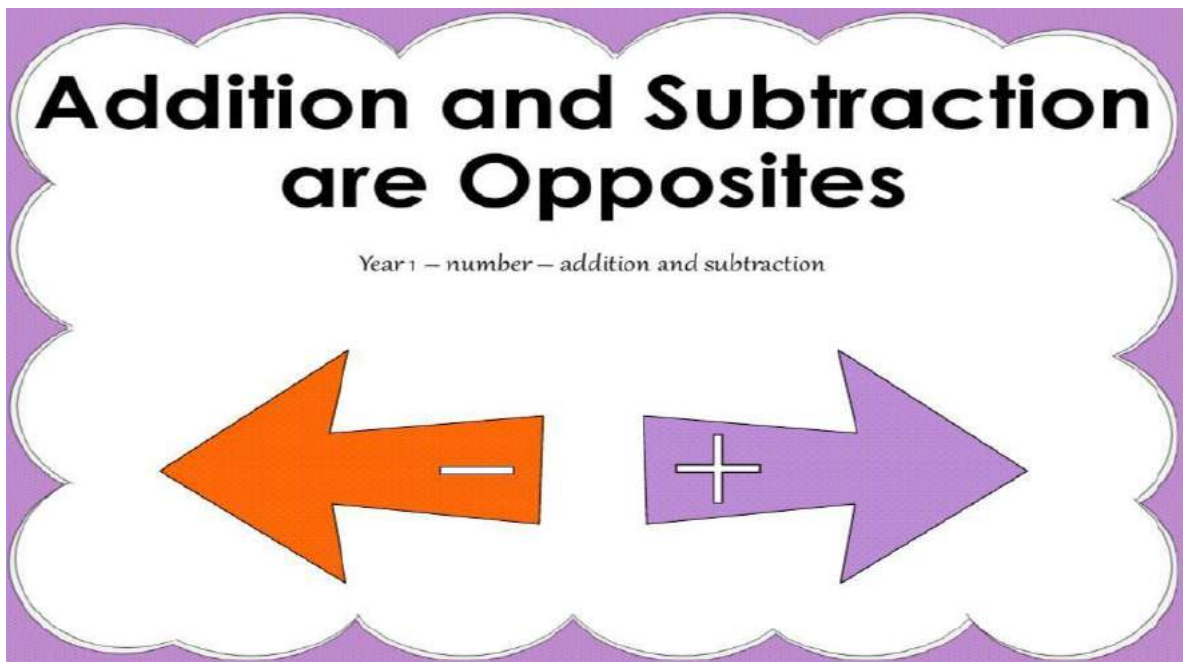
$$\begin{array}{r} 2. \quad \quad \textcircled{1} \ \textcircled{1} \\ \quad \quad 7 \ 2 \ 3 \\ \quad + \ 1 \ 8 \ 9 \\ \hline \text{Ans.} \ 9 \ 1 \ 2 \end{array}$$

$$\begin{array}{r} 4. \quad \quad \textcircled{6} \ \textcircled{9} \ \textcircled{10} \\ \quad \quad 7 \ 0 \ 0 \\ \quad - \ 5 \ 9 \ 9 \\ \hline \text{Ans.} \ 1 \ 0 \ 1 \end{array}$$

Subtraction

To subtract a number from another number is also referred to as 'taking away one number from another'.

The operation or process of finding the difference between two numbers or quantities.



$$\begin{array}{r} \text{(i)} \quad 3 \ 9 \ 4 \ 4 \\ - \quad 8 \ 4 \ 0 \\ \hline 3 \ 1 \ 0 \ 4 \end{array}$$

$$\begin{array}{r} \text{(ii)} \quad 4 \ 8 \ 1 \ 7 \\ - \quad 2 \ 4 \ 0 \ 7 \\ \hline 2 \ 4 \ 1 \ 0 \end{array}$$

$$\begin{array}{r} \text{(iii)} \quad \textcircled{5} \ \textcircled{9} \ \textcircled{9} \ \textcircled{10} \\ \quad \quad \cancel{6} \ \cancel{0} \ \cancel{0} \ \cancel{0} \\ - \quad 4 \ 9 \ 9 \ 9 \\ \hline 1 \ 0 \ 0 \ 1 \end{array}$$

$$\begin{array}{r} \text{(iv)} \quad \textcircled{7} \ \textcircled{12} \ \textcircled{13} \ \textcircled{14} \\ \quad \quad \cancel{8} \ \cancel{3} \ \cancel{4} \ \cancel{4} \\ - \quad 7 \ 9 \ 8 \ 6 \\ \hline 3 \ 5 \ 8 \end{array}$$

Multiplication

An arithmetic operation, where we find the product of two or more numbers.

Multiplication is one of the four basic arithmetic operations, alongside addition, subtraction, and division. In math, multiply means the repeated addition of groups of equal sizes.



A diagram showing the standard algorithm for multiplication. It features a grid with a light blue background and a green border. The numbers 65 and 23 are written in black. The product 1495 is written in blue. The process is shown as follows: 65 multiplied by 3 equals 195, and 65 multiplied by 20 equals 1300. These two products are then added together to get the final product of 1495. The text "Standard Algorithm" is written in green below the grid.

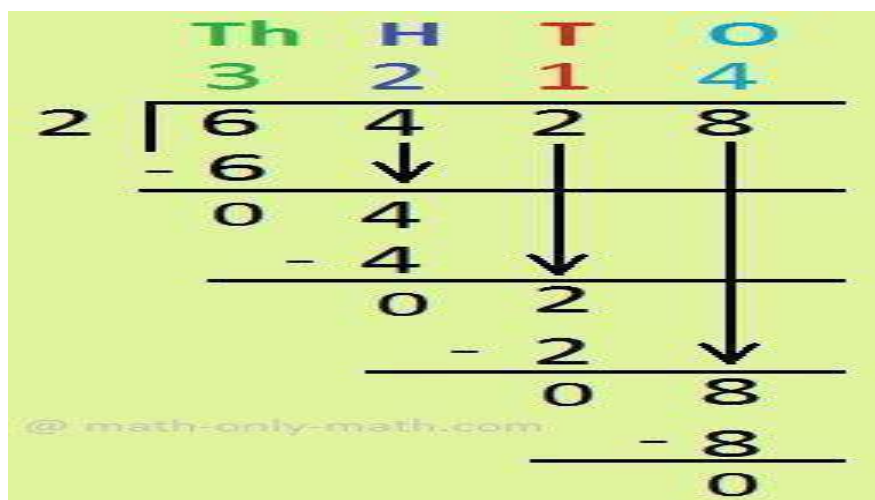
$$\begin{array}{r} 65 \\ \times 23 \\ \hline 195 \\ + 1300 \\ \hline 1495 \end{array}$$

Standard Algorithm

Division

The process of breaking a number up into equal parts, and finding out how many equal parts can be made.

A mathematical operation which involves the sharing of an amount into equal-sized groups.



A diagram showing the long division of 6428 by 2. The divisor 2 is on the left. The dividend 6428 is written above a horizontal line. The quotient 3214 is written above the dividend. The process is shown as follows: 2 goes into 6 three times, 2 goes into 4 two times, 2 goes into 2 one time, and 2 goes into 8 four times. The remainder is 0. The text "@ math-only-math.com" is written in the bottom left corner.

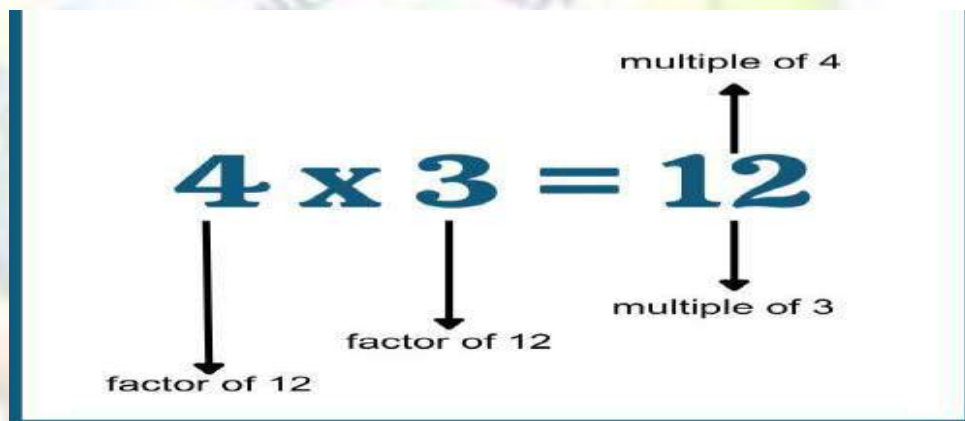
$$\begin{array}{r} 3214 \\ 2 \overline{) 6428} \\ \underline{- 6} \\ 04 \\ \underline{- 4} \\ 02 \\ \underline{- 2} \\ 08 \\ \underline{- 8} \\ 0 \end{array}$$

@ math-only-math.com

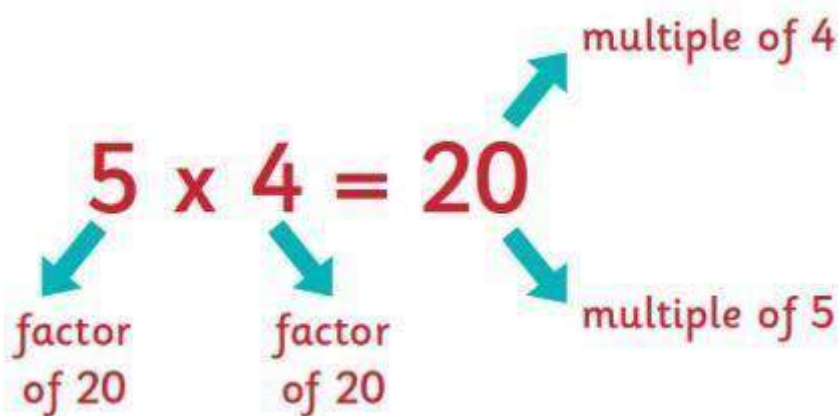
CHAPTER -3 VARIOUS FACTORS

INTRODUCTION:

A factor is a number that divides the given number exactly without a remainder, whereas a multiple is a number, and that number is a product of the given number with other numbers.



Factors are the result when you divide a number by an integer (whole number) with no remainder, multiples are the result when you multiply a number by an integer.



Factors vs Multiples

Factors of x

Multiples of x

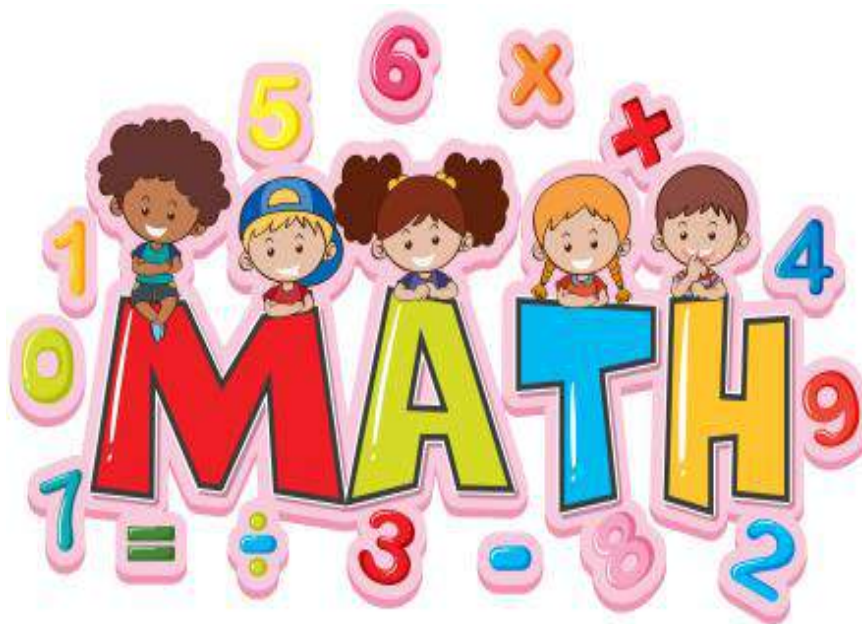
• integers that evenly divide into x

• finitely many

x
and
 $-x$

• products of x and an integer

• infinitely many



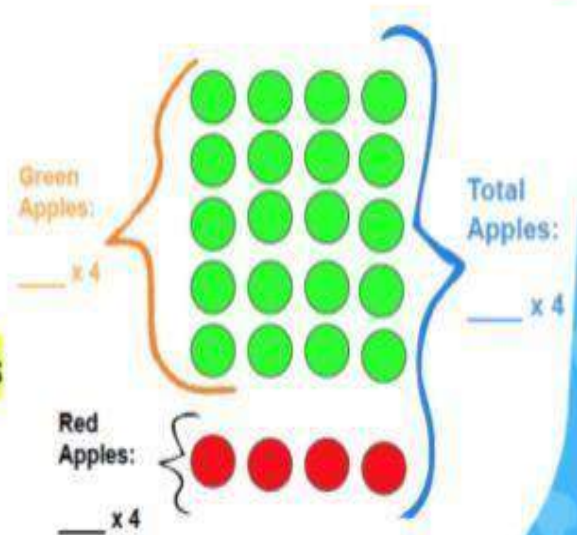
SAMPLE PAPER

Q.1)

Total apple:

David's mom buys apples for his class. There are 5 rows of 4 green apples. There is 1 row of

4 red apples. Fill in the blanks to complete the expressions.



TOTAL APPLES =
_____ \times 4 = _____.

Q.2)

Leslie has 32 dolls in 4 baskets.

Each basket has the same number of dolls.

How many dolls are in each basket?



Q.3)

Mrs. Smith is getting her classroom ready for the first day of school. She has 25 students in her class.

She wants 5 students to sit at every table.

How many tables will she need?

_____.

Q.4)

A shelter is taking care of 384 cats.

176 more arrive. How many cats are

in the shelter now?

