SESSION : 22

CLASS : V

SUBJECT : MATHEMATICS

CHAPTER NUMBER: 8

CHAPTER NAME : FACTORS AND MULTIPLES

SUB-TOPIC : EXTRA QUESTIONS (QUIZ)

Website: www.odmegroup.org
Email: info@odmps.org
Toll Free: 1800 120 2316
Sishu Vihar, Infocity Road, Patia, Bhubaneswar- 751024

LEARNING OBJECTIVE :

Enable the students

- **To understand the difference between multiples and factors**
- **To understand the concept of prime, composite, co-prime and twin prime numbers.**
- **To understand the properties of Factors and multiples.**

ODM PUBLIC SCHOOL
SCHOOL OF HUMAN EXCELLENCE

EXERCISE 8 [A]

11. Find the prime factors of the following numbers :
27, 35, 63, 91, 100, 77, 54, and 143.

a)

$$\begin{array}{r|l} 3 & 27 \\ \hline 3 & 9 \\ \hline & 3 \end{array}$$

So, Prime factors of 27 is 3.

b)

$$\begin{array}{r|l} 5 & 35 \\ \hline & 7 \end{array}$$

So, Prime factors of 35 are 5 and 7.

c)

$$\begin{array}{r|l} 3 & 63 \\ \hline 3 & 21 \\ \hline & 7 \end{array}$$

So, Prime factors of 63 are 3 and 7.

d)

$$\begin{array}{r|l} 7 & 91 \\ \hline & 13 \end{array}$$

So, Prime factors of 91 is 7 and 13.

ODM PUBLIC SCHOOL
SCHOOL OF HUMAN EXCELLENCE

EXERCISE 8 [A]

11. Find the prime factors of the following numbers :
27, 35, 63, 91, 100, 77, 54, and 143.

e)

2	100
2	50
5	25
	5

So, Prime factors of 100 are 2 and 5.

f)

7	77
	11

So, Prime factors of 77 are 7 and 11.

g)

2	54
3	27
3	9
	3

So, Prime factors of 54 are 2 and 3.

d)

11	143
	13

So, Prime factors of 143 is 11 and 13.

ODM PUBLIC SCHOOL
SCHOOL OF HUMAN EXCELLENCE

Let's revise

Prime Number & Composite Numbers

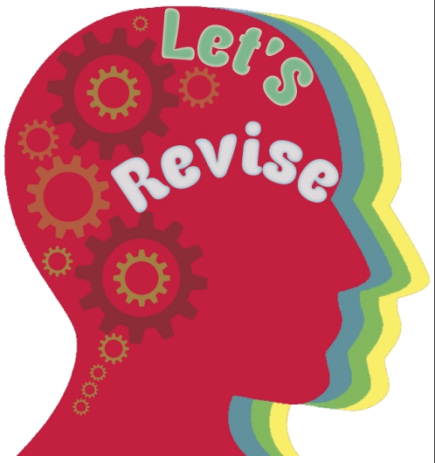
SIEVE OF ERATOSTHENES

	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100
101	102	103	104	105	106	107	108	109	110
111	112	113	114	115	116	117	118	119	120

Prime numbers

ODM PUBLIC SCHOOL
SCHOOL OF HUMAN EXCELLENCE

A number is Divisible by	If the last digit is
2	0, 2, 4, 6, 8
5	0, 5
10	0



A number is Divisible by	If the sum of its digit is divisible by
3	3
9	9

A number is Divisible by	If it is divisible by
6	2 and 3
12	3 and 4
15	3 and 5

ODM PUBLIC SCHOOL
SCHOOL OF HUMAN EXCELLENCE

TEST OF DIVISIBILTY: 4

If the number formed by its last two digits are divisible by 4

or

If the last two digits are both 0, then the numbers is divisible by 4.

Examples: 124, 416, 5440, 9600

TEST OF DIVISIBILTY: 8

If the number formed by its last three digits are divisible by 8

or

If the last three digits are 0, then the numbers is divisible by 8.

Examples: 124, 416, 5440, 9600

ODM PUBLIC SCHOOL
SCHOOL OF HUMAN EXCELLENCE

TEST OF DIVISIBILTY: 11

If the difference between the sum of the digits at odd places (from the right) and the sum of the digits at even places (from the right) of the number is either 0 or divisible by 11, then the number is divisible by 11

Examples: 308, 1331, 61809, 6556… etc.

Number	Sum of the digits (at odd places) From the right	Sum of the digits (at even places) From the right	Difference
308	8 + 3 = 11	0	11 - 0 = 11
1331	1 + 3 = 4	3 + 1 = 4	4 - 4 = 0
61809	9 + 8 + 6 = 23	0 + 1 = 1	23 - 1 = 22
6556	6 + 5 = 11	6 + 5 = 11	11 – 11 = 0

ODM PUBLIC SCHOOL
SCHOOL OF HUMAN EXCELLENCE

Say Yes or No for each of the following :

a) Is 49 a composite number ?

b) Is 67 a composite number ?

c) Is 99 a composite number ?

d) Is 73 a prime number ?

e) Is 59 a prime number ?

f) Is 75 a prime number ?

g) Is 89 a prime number ?

h) Is 91 a prime number ?

ODM PUBLIC SCHOOL
SCHOOL OF HUMAN EXCELLENCE

Express each of the following as the sum of two prime numbers :

a) 12 = _____ + _____

b) 18 = _____ + _____

c) 20 = _____ + _____

d) 30 = _____ + _____

e) 36 = _____ + _____

f) 44 = _____ + _____

ODM PUBLIC SCHOOL
SCHOOL OF HUMAN EXCELLENCE

Express each of the following as the difference of two prime numbers :

a) 4 = _____ – _____

b) 10 = _____ – _____

c) 15 = _____ – _____

d) 20 = _____ – _____

e) 27 = _____ – _____

f) 31 = _____ – _____

ODM PUBLIC SCHOOL
SCHOOL OF HUMAN EXCELLENCE

ANSWERS

Say Yes or No for each of the following :

a) Is 49 a composite number ? YES

b) Is 67 a composite number ? NO

c) Is 99 a composite number ? YES

d) Is 73 a composite number ? NO

e) Is 59 a prime number ? YES

f) Is 75 a prime number ? NO

g) Is 89 a prime number ? YES

h) Is 91 a prime number ? NO

ODM PUBLIC SCHOOL
SCHOOL OF HUMAN EXCELLENCE

Express each of the following as the sum of two prime numbers :

a) 12 = 7 + 5

b) 18 = 11 + 7

c) 20 = 17 + 3

d) 30 = 11 + 19

e) 36 = 17 + 19

f) 44 = 13 + 31

ODM PUBLIC SCHOOL
SCHOOL OF HUMAN EXCELLENCE

Express each of the following as the difference of two prime numbers :

a) $4 = \frac{7}{} - \frac{3}{}$

b) $10 = \frac{13}{} - \frac{3}{}$

c) $15 = \frac{17}{} - \frac{2}{}$

d) $20 = \frac{23}{} - \frac{3}{}$

e) $27 = \frac{29}{} - \frac{2}{}$

f) $32 = \frac{37}{} - \frac{5}{}$

ODM PUBLIC SCHOOL
SCHOOL OF HUMAN EXCELLENCE

LEARNING OUTCOME:

Students are able

- **To understand the difference between multiples and factors**
- **To understand the concept of prime, composite, co-prime and twin prime numbers.**
- **To understand the properties of Factors and multiples.**

ODM PUBLIC SCHOOL
SCHOOL OF HUMAN EXCELLENCE

THANKING YOU

ODM EDUCATIONAL GROUP

ODM PUBLIC SCHOOL
SCHOOL OF HUMAN EXCELLENCE