two

1) Fill in the blanks

i) on dividing 9 by 7, quotient = 1 and remained = 2

ii) On dividing 18 by 6, quotient = 3 and remainden = 0

iii) Facton of a numben is exact divison of the numben.

iv) Everg numben is a facton of itself

v) Everg numben is a multiple of itself

vi) 1 is facten of everg numben

vii) For everg numbers, its factons are finite and its multiples are infinete.

viii) x is a facton of y, then y is a multiple of x.

HW ch- Playing with numbers DT:- 2/7/2021

2) write all the factors of:

i) 16 - 1, 2, 4, 8, 16
ii) 21 - 1, 3, 7, 21
iii) 39 - 1, 3, 13, 39
iv) 48 - 12, 3 4 6, 8, 12, 16, 24, 48
v) 64 - 1, 2, 4, 8, 16, 32, 64
98 - 12, 7, 14, 49, 98

3) write the first six multiples of:

i) 4 = 1 X 4 = 4
2 X 4 = 8
3 X 4 = 12
4 X 4 = 16
5 X 4 = 20
6 X 4 = 24

ii) 9
9 x 2 = 18
9 x 3 = 27
9 x 4 = 36
9 x 5 = 45
9 x 6 = 54

iii) 39
2 X 39 = 78
3 X 39 = 117
4 X 39 = 156
5 X 39 = 195
6 X 39 = 234

iv) 48
2 X 48 = 96
3 X 48 = 144
4 X 48 = 192
5 X 48 = 270
6 X 48 = 288

v) 64
2 X 64 = 128
3 X 64 = 192
4 X 64 = 256
5 X 64 = 320
6 X 64 = 384

vi) 16
2 X 16 = 32
3 X 16 = 48
4 X 16 = 64
5 X 16 = 80
6 X 16 = 96

4) The product of two numbers is 36 and their sum is 13. Find the numbers.

Ans: 36 can be written as

$1 \times 36 = 36$, $2 \times 18 = 36$, $3 \times 12 = 36$

$4 \times 9 = 36$, $6 \times 6 = 36$

Here the sum of 4 and 9 is 13

Hence, 4, and 9 are the two numbers.

5) The product two numbers is 48 and their sum is 16. Find the numbers.

Ans: 48 can be written as

$1 \times 48 = 48$, $2 \times 24 = 48$, $3 \times 16 = 48$,

$4 \times 12 = 48$, $6 \times 8 = 48$

Here the sum of 4 and 12 is 16.

Hence 4 and 12 are the two numbers.

6) Write two numbers which differ by 3 and whose product is 54.

Ans- 54 can be written as:

$1 \times 54 = 54$, $2 \times 27 = 54$, $3 \times 18 = 54$, $6 \times 9 = 54$

Here the difference of 9 and 6 is 3.
Hence, the two numbers are 9 and 6.

7) Without making any actual division show that 7007 is divisible by 7

Ans- $7007 = 7000 + 7$
$= 7 \times (1000 + 1) = 7 \times 1001$
clearly, 7007 is divisible by 7.

8) Without making any actual division show that 2300023 is divisible by 23.
2300023

Ans- $2300023 = 2300000 + 23$
$= 23 \times (100000 + 1) = 23 \times 100001$
clearly, 2300023 is divisible by 23.

9) Without making actual division, show that each of the following numbers is divisible by 11.

i) 11011

11011 = 11000 + 11
= 11 × (1000 + 1) = 11 × 1001

clearly, 11011 is divisible by 11.

ii) 110011

110011 = 110000 + 11
= 11 × (10000 + 1) = 11 × 10001
clearly, 110011 is divisible by 11

iii) 1100001

11 = 11000000 + 11
= 11 × (1000000 + 1) = 11 × 1000001
clearly, 11000011 is divisible by 11

10) without actual division, show that each of the following numbers is divisible by 8

i) 1608.

1608 = 1600 + 8
= 8 × (200 + 1) = 8 × 201
clearly, 1608 is divisible by 8.

ii) 56008

56008 = 56000 + 8

= 8 × (7000 + 1) = 8 × 7001

clearly, 56008 is divisible by 8

iii) 240008

240008 = 240000 + 8

= 8 × (30000 + 1) = 8 × 30001

clearly, 240008 is divisible by 8.