Exercise 9 (B)

1. Fill in the blanks.

i) On dividing 9 by 7, quotient = 1 and remainder = 2.

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

iii) Factor of a number is exact divisor of the number.

iv) Every number is a factor of itself.

v) Every number is a multiple of itself.

vi) 1 is factor of every number.

vii) For every number, its factors are finite and its multiples are infinite.

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

HW 2. Write all the factors of:

a) 16

Ans⇒ 16

$= 1 \times 16$

$= 2 \times 8$

=4x4

Factors of 16=1,2,4,8,16

b) 21

Ans⇒ 21

=1x21

=3x7

Factors of 21=1,3,7,21

c) 39

Ans⇒ 39

=1x39

=3x13

Factors of 39=1,3,13,39

d) 48

Ans⇒ 48

=1x48

=2x24

=3x16

=4x12

=6x8

Factors of 48=1,2,3,4,6,8,12,16,24,48

e) 64

Ans⇒ 64

=1x64

=2x32

=4x16

=8x8

Factors of 64=1,2,4,8,16,32,64

f) 98

Ans⇒ 98

= 1 x 98

= 2 x 49

= 7 x 14

Factors of 98 = ~~1 x 98~~ 1, 2, 7, 14, 49, 98

3) Write the first six multiples of:

i) 4

Ans⇒ 4

First six multiples of 4 = 4, 8, 12, 16, 20

ii) 9

Ans⇒ Multiples of 9 = 1x9, 2x9, 3x9, 4x9, 5x9, 6x9 -

= 9, 18, 27, 36, 45, 54

iii) 11

Ans⇒ Multiples of 11 = 1x11, 2x11, 3x11, 4x11, 5x11, 6x11

= 11, 22, 33, 44, 55, 66

iv) 15

Ans⇒ Multiples of 15 = 1x15, 2x15, 3x15, 4x15, 5x15, 6x15

= 15, 30, 45, 60, 75, 90

v) 18

Ans⇒ Multiples of 18 = 1x18, 2x18, 3x18, 4x18, 5x18, 6x18

= 18, 36, 54, 72, 90, 108

vi) 16

Ans⇒ Multiples of 16 = 1x16, 2x16, 3x16, 4x16, 5x16, 6x16

= 16, 32, 48, 64, 80, 96

4. The product of two numbers is 36.
So, the factors of 36 are:-
1×36, 2×18, 3×12, 4×9, 6×6
The sum of those numbers is 13.
So, 4+9=18
∴The required two numbers are 4 and 9.

product of two

5. The number is 48.
So, the factors of 48 are:-
1×48, 2×24, 3×16, 4×12, 6×8
The sum of those numbers is 16
As, 4+12=16
So, the required two numbers are 4 and 12.

6. The product of two numbers is 54
So, the factors of 54 are:-
1×54, 2×27, 3×18, 6×9
The difference of those numbers is 3.
As, 9-6=3
So, the required two numbers are 9 and 6.

7. 7007=7000+7
=7(1000+1)=7×1001
∴ 7007 is divisible by 7.

8. $2300023 = 2300000 + 23$

$= 23(100000 + 1)$

2300023 is divisible by 23.

9) i) $11011 = 11000 + 11$

$= 11(1000 + 1) = 11000 + 11$

11011 is divisible by 11.

ii) $110011 = 110000 + 11$

$= 11(10000 + 1)$

110011 is divisible by 11.

iii) $11000011 = 11000000 + 11$

$= 11(1000000 + 1)$

11000011 is ~~dis~~divisible by 11.

10) i) $1608 = 1600 + 8$

$= 8(200 + 1)$

1608 is divisible by 8.

ii) $56008 = 56000 + 8$

$= 8(7000 + 1)$

56008 is divisible by 8.

iii) $240008 = 240000 + 8$

$= 8(30000 + 8)$

240008 is divisible by 8.