Exercise - 9(B)

(1)

(i) On dividing 9 by 7, quotient = 1 and remainder = 0.
(ii) On dividing 18 by 6, quotient = 3 and remainder = 0.
(iii) Factor of a number exact division of number.
(iv) Every ~~factor~~ number is a factor of itself.
(v) Every number is a multiple of ~~one~~ itself.
(vi) 1 is a factor of every number.
(vii) For a every numbers, its factors are ~~finite~~ and its multiples are infinite.
(viii) x is a factor of y, then y is a multiple of x.

(2)

(i) $16 = 1 \times 16$
2×8
4×4
Factors of 16 = 1, 2, 4, 8, 16.

(ii) $21 = 1 \times 21$
3×7
Factors of 21 = 1, 3, 7, 21

(iii) $39 = 1 \times 39$
3×13
Factors of 39 = ~~$1 \times 3 \times 13 \times 39$~~ 1, 3, 13, 39.

(iv) $48 = 1 \times 48$
2×24
3×16
4×12
6×8
Factors of 48 = 1, 2, 3, 4, 6, 8, 12, 16, 24, 28.

(v) $64 = 1 \times 64$
2×32
4×16
8×8
Factors of 64 = 1, 2, 4, 8, 8, 16, 32, 64.

(VI) $98 = 1 \times 98$

2×49 Factors = 1, 2, 7, 14, 49, 98.

7×14

(3)

(I) 4 = 4, 8, 12, 16, 20, 24

(II) 9 = 9, 18, 27, 36, 45, 54

(III) 11 = 11, 22, 33, 44, 55, 66

(IV) 15 = 15, 30, 45, 60, 75, 90

(V) 18 = 18, 36, 54, 72, 90, 108

(VI) 16 = 16, 32, 48, 64, 80, 96

(4) Product of two numbers = 36.

Their Sum is = 13

Factors of 36 = 1×36

2×18

3×12

4×9

4 and 9 satisfied the addition of two numbers = 13. So the numbers is 4 and 9.

(5) Product of two numbers = 48

Their sum is = 16.

~~Factors of 16 = 1×16, 2×8, 4×4.~~

Factors of 48: 1X48, 2X24, 3X16, 4X12; 6X8.

4 and 12 satisfied the addition of two number = 16. So the number is 4 and 12.

(6) Difference of two numbers = 3
Their product = 54
Factors of 54 = 1X54, 2X27, 3X18, 6X9

6 and 9 satisfied the difference of two numbers = 3. So the number is 6 and 9.

(7) $7007 = 7000 + 7 = 7(1000+1)$
Therefore 7007 is divisible by 7.

(8) $2300023 = 2300000 + 23 = 23(1000000+1)$
Therefore 2300023 divisible by 23.

(9)

(i) $11011 = 11000 + 11 = 11(1000+1) \Longrightarrow$ 11011 divisible by 11.

(ii) $110011 = 110000 + 11 = 11(10000+1) \Longrightarrow$ 110011 divisible by 11.

(iii) $11000011 = 11000000 + 11 = 11(1000000+1) \Longrightarrow$ 11000011 divisible by 11.

(10)

(i) $1608 = 1600 + 8 = 8(200+1) \Longrightarrow$ 1608 divisible by 8.

(ii) $56008 = 56000 + 8 = 8(7000+1) \Longrightarrow$ 56008 divisible by 8.

(iii) $240008 = 240000 + 8 = 8(30000+1) \Longrightarrow$ 240008 divisible by 8.