C.W. 20.6.21

Ex-9(B)

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

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

(iii) Factor of a no. is exact division of the no. itself.

(iv) Every no. is a factor of itself.

(v) Every no. is a multiple of 1.

(vi) 1 is a factor of every no.

(vii) For every no., its factors are infinite and its multiple are infinite.

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

2- Write all factors of :

i) 16 = 1, 2, 4, 16

ii) 21 = 1, 3, 7, 21

iii) 39 = 1, 3, 13, 39

iv) 48 = 1, 2, 3, 4, 6, 8, 12, 16, 24, 48

v) 64 = 1, 2, 4, 8, 16, 32, 64

vi) 98 = 1, 2, 7, 14, 49, 98

3) Write first 6 multiples of :

i) 4 = 8, 12, 16, 20, 24, 27

ii) 9 = 18, 27, 36, 45, 54, 63

iii) 11 = 22, 33, 44, 55, 66, 77

iv) 15 = 30, 45, 60, 75, 90, 105, 120

v) 18 = 36, 54, 72, 90, 108, 126

vi) 16 = 32, 48, 64, 80, 96, 112

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

ans. $36 = 12 \times 3$ $36 = \underline{4 \times 9}$ $36 = 6 \times 6$ $36 = 2 \times 18$ $36 = 1 \times 36$

∴ If we need two nos. ~~the and their~~ that are multiplied to give the product 36 and their sum is 13 so, we will use 4 and 9 because- $4 \times 9 = 36$ and $4 + 9 = 13$.

5. The product of two nos. is ~~36~~ 48 and their sum is 16. Find the nos.

ans. $48 = 48 \times 1$ 24×2 16×3 $\underline{12 \times 4}$ 8×6 6

∴ If we need the two nos. that are multiplied to give the product 48 and their sum is 16 so, we will use 12 and 4 because- $12 \times 4 = 48$ and $12 + 4 = 16$

6) If we need the two nos that can differ by 3 and their product will be 54 are 9 and 6 because $9 \times 6 = 54$ and $9 - 6 = 3$.

ans. $54 = 54 \times 1$

$54 = 27 \times 2$

$54 = 3 \times 18 \quad 18 \times 3$

$54 = 9 \times 6$

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

ans. $7007 = 7000 + 7$

$= 7 \times (1000 + 1) = 7 \times 1001$

$= 7007$

Clearly, 7007 is divisible by 7.

Q8) Without making any actual division, show that 2300023 is divisible by 23.

ans. $2300023 = 2300000 + 23$

$= 23 \times (100000 + 1) = 23 \times 100001 = 2300023$

∴ Clearly, 330022 is divisible by 22.

Q.9) Without making any actual division show that each of the following nos. is divisible by 11.

i) $11011 = 11 \times 1001$

$= 11(1000+1) = 11 \times 10001 = 110011$

Clearly 11011 is divisible by 11.

ii) $110011 = 11 \times 10001$

$= 11(10000+1) = 11 \times 10001 = 110011$

∴ Clearly 110011 is divisible by 11.

iii) $11000011 = 11 \times 1000001$

$= 11(1000000+1) = 11 \times 1000001$

$= 11000011$

∴ Clearly 11000011 is divisible by 11

Q.10) Without actual division, show that each of the following nos. is divisible by 8

i) $1608 = 1600 + 8$

$= 8 \times 200 + 8 \times 1$

$= 8$

$= 8(200+1)$

$= 8 \times 201$

$= 1608$

∴ Clearly 1608 is divisible by 8.

(ii) $56008 = 56000 + 8$

$= (8 \times 7000) + (8 \times 1)$

$= 56000 + 8$

$= 56008$

∴ Clearly 56008 is divisible by 8.

(iii) $240008 = 240000 + 8$

$= (8 \times 30,000) + (8 \times 1)$

$= 240000 + 8$

$= 240008$

∴ Clearly 240008 is divisible by 8