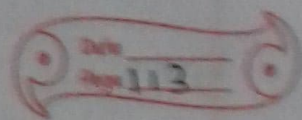


C.W
30.6.21

§ Ex-9(B)



1.2) 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 multiples 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) $4 = 8, 12, 16, 20, 24, 28$

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. $36 = 12 \times 3$ \therefore If we need two nos. ~~that are multiplied~~ ~~that and their p~~

$36 = \underline{4 \times 9}$ to give the product of 36 and their sum

$36 = 6 \times 6$ is 13 so, we will use 4 and 9 because -

$36 = 2 \times 18$ $4 \times 9 = 36$ and $4 + 9 = 13$

$36 = 1 \times 36$

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

Find the nos.

ans. $48 = \del{48} \times 1$ \therefore If we need the two nos. that are

24×2 multiplied to give the product 48 and

16×3 their sum is 16 so, we will use 12 and 4

12×4 because - $12 \times 4 = 48$ and $12 + 4 = 16$

8×6

6

6)

ans. $54 = 54 \times 1$

$$54 = 27 \times 2$$

$$54 = \cancel{3 \times 18} 18 \times 3$$

$$54 = \underline{9 \times 6}$$

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 $9 - 6 = 3$.

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. $2300023 = 2300000 + 23$

$$= 23 \times (\cancel{100000} + 1) = \cancel{23} 100001 \times 23 = \cancel{23} 00023$$

Clearly, 20002 is divisible by 22 .

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

$$i) 11011 = 11 \times 1000$$

$$= 11(1000+1) = 11 \times 1001 = 11,011$$

Clearly 11011 is divisible by 11 .

$$ii) 110011 = 11 \times 10000$$

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

Clearly 110011 is divisible by 11 .

$$iii) 11000011 = 11 \times 1000000$$

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

$$= 11000011$$

Clearly 11000011 is divisible by 11 .

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

$$i) 1608 = 1600 + 8$$

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

$$\begin{aligned} &= 8 \\ &= 8(200+1) \\ &= 8 \times 201 \\ &= 1608 \end{aligned}$$

∴ Clearly 1608 is divisible by 8.

$$\begin{aligned} \text{ii) } 56008 &= 56000 + 8 \\ &= (8 \times 7000) + (8 \times 1) \\ &= 56000 + 8 \\ &= 56008 \end{aligned}$$

∴ Clearly 56008 is divisible by 8.

$$\begin{aligned} \text{iii) } 240008 &= 240000 + 8 \\ &= (8 \times 30000) + (8 \times 1) \\ &= 240000 + 8 \\ &= 240008 \end{aligned}$$

∴ Clearly 240008 is divisible by 8.