C.W 30/6/21

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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 no. is a factor of itself.

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

(vi) 1 is factor of every number.

(vii) For every number, its factors are smaller and its multiples are greater.

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

2 (i) 16 - 1, 2, 4, 8, 16.

(ii) 21 - 1, 3, 7, 21

(iii) 39 - 1, 3, 13, 39

(iv) 48 - 1, 2, 3, 4, 6, 8, 12, 16, 24 and 48

(v) 64 - 1, 2, 4, 8, 16, 32, 64

(vi) 98 - 1, 2, 14, 22, 44, 98.

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 nos. is 36 and their sum is 13. Find the numbers.

Factors of 36 = 1×36
$= 2 \times 18$
$= 3 \times 12$
$= 4 \times 9$
$= 6 \times 6$

~~1 * 36 X~~
~~1 * 36~~

$1 + 36 \neq 13$
$2 + 18 \neq 13$
$3 + 12 \neq 13$
$4 + 9 = 13$
$6 + 6 \neq 13$

So, it is ~~clearly~~ 4 and 9 as $4 \times 9 = 36$ and $4 + 9 = 13$.

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5 The products of two numbers is 48 and their sum is 16. Find the numbers.

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

1 + 48 ≠ 16
2 + 24 ≠ 16
3 + 16 ≠ 16
4 + 12 = 16
6 + 8 ≠ 16
8 + 6 ≠ 16
12 + 4 ≠ 16
16 + 3 ≠ 16
24 + 2 ≠ 16

So, the numbers are 4 and 12 as 4 x 12 = 48 and 4 + 12 = 16.

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

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

The factor should differ by 3, so now →

$54 - 1 \neq 3$
$27 - 2 \neq 3$
$18 - 3 \neq 3$
$9 - 6 = 3$

So, the nos. will be 9 and 6 whose product is 54 and differ by 3.

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

$7007 = 7000 + 7$
$= 7 \times (1000 + 1) = 7 \times 1001$

So, 7007 is divisible by 7.

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

$2300023 = 2300000 + 23$
~~$= 23 \times (2300000 + 23)$~~
$= 23 \times (100000 + 1) = 23 \times 100001$

So, 23.00023 is divisible by 23.

9(i) 11011

11011 = 11000 + 11

= 11 x (1000 + 1) = 11 = 1001

So, 11011 is divisible 11.

(ii) 110011

110011 = 110000 + 11

= 11 x (10000 + 1) = 11 x 100001

So, 110011 is divisible by 11.

(iii) 11000011

11000011 = 11000000 + 11

= 11 x (10000000 + 1) = 11 x 10000001

So, 11000011 is divisible by 11.

10(i) 1608 =

1608 = 1600 + 8

= 8 x (200 + 1) = 8 x 201

So, 1608 is divisible by 8

(ii) 56008

56008 = 56000 + 8

= 8 x (7000 + 1) = 8 x 7001

So, 56008 is divisible by 8.