CW
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Date
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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 no. is exact divisor of the number.

iv) Every no. is a factor of itself.

v) Every no. is a multiple of itself.

vi) 1 is factor of every no.

vii) For every no., its factors are finite and its multiples are infinite.

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

2. Write all the factors of :

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, 48.
v) 64 : 1, 2, 4, 8, 16, 32, 64.
vi) 98 : 1, 2, 7, 14, 49, 98.

3. Write the first six multiples of :

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 no.s is 36 and their sum is 13. Find the no.s.

Ans- Factors of 36, ⇒ 1 x 36
2 x 18
3 x 12
4 x 9
6 x 6

The sum of 4 and 9 is 13.

So, the required no.s are 4 and 9.

5. The product of two no.s is 48 and their sum is 16. Find

Ans- Factors of 48 → 1 x 48
2 x 24
3 x 16
4 x 12
6 x 8.

The sum of 4 and 12 is 16.
So, the required no.s are 4 and 12.

6. Write two no.s which differ by 3 and whose product is 54.

Ans – Factors of 54 → 1 × 54 6 × 9.
2 × 27
3 × 18

The difference between 6 and 9 is 3.
So, the required no.s are 6 and 9.

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

Ans – $7007 = 7 \times 1001$
$= 7 \times (1000 + 1)$
Since, 7007 is a multiple of 7,
∴ 7007 is divisible by 7.

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

Ans – $2300023 = 2300000 + 23$
$= 23(100000 + 1)$
$= 23 \times 100001$
Since, 2300023 is a multiple of 23,
∴ 2300023 is divisible by 23.

9. Without making any actual division, show that each of the following no.s is divisible by 11 –

i) 1011
$1011 = 11000 + 11$
$= 11(1000 + 1)$
$= 11 \times 1001.$
Since, 1011 is a multiple of 11,
∴ 1011 is divisible by 11

ii) 11011

$11011 = 11000 + 11$
$= 11(1000 + 1)$
$= 11 \times 1001$

Since, 11011 is a multiple of 11,
11011 is divisible by 11.

iii) 11000011

$11000011 = 11000000 + 11$
$= 11 \times (1000000 + 1)$
$= 11 \times 1000001$

Since, 11000011 is a multiple of 11,
11000011 is divisible by 11.

6. Without actual division, show that each of the following no.s is divisible by 8:

i) 1608

$1608 = 1600 + 8$
$= 8(200 + 1)$
$= 8 \times 201$

Since, 1608 is a multiple of 8
1608 is divisible by 8.

ii) 56008

$56008 = 56000 + 8$
$= 8(7000 + 1)$
$= 8 \times 7001$

Since, 56008 is a multiple of 8,
56008 is divisible by 8.

iii) 240008.

$$240008 = 240000 + 8$$
$$= 8(30000 + 1)$$
$$= 8 \times 30001.$$

Since, 240008 is a multiple of 8,
240008 is divisible by 8.