H.W
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Ex- 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 an exact divisor of the number.

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(iv) Every number is a factor of itself.

(v) Every number is a multiple of itself.

(vi) One is a factor of every number.

(vii) For every number, its factors are finite and its multiples are infinite.

(viii) x is a factor of y, then 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, 7, 14, 98

3. Write the first six multiples of:

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

(iii) 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. The product of two numbers is 36 and their sum is 13. Find the numbers.

Solution:

Product of two numbers = 36

Their sum = 13

So, we need the factors of 36.

$36 = 1 \times 36, 2 \times 18, 3 \times 12, 4 \times 9, 6 \times 6$

Here 4 and 9 will be 13.

Ans- So, the numbers are 4 and 9.

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

Solution:

Product of two numbers = 48

Their sum = 16

So, wee need the factors of 48.

$48 = 1 \times 48, 2 \times 24, 3 \times 16, 4 \times 12, 6 \times 8$

Here 4 and 12 will be 16.

Ans- So, the numbers are 4 and 12.

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

Product of two numbers = 54
The two numbers is divisible by = 3
The two numbers are =
1×54, 2×27, 3×18, (6×9)
⇒ Here, 6 and 9 both differs by 3.

Ans- So, the two numbers are 6 and 9.

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

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

Clearly, 7007 is divisible by 7.

8. Without making any actual division, show that 23,00,023 is divisible by 23.

$23,00,023 = 23,00,000 + 23$
$= 23 \times (100000 + 1)$
$= 23 \times 100001$

Clearly, 23,00,023 is divisible by 23.

9. Without making any actual division, show that each of the following numbers is divisible by 11.

(i) 11,011

= 11,000 + 11
= 11 × (1000 + 1)
= 11 × 10001

Clearly; 11,011 divisible by 11.

(ii) 110011

= 110,000 + 11
= 11 × (10,000 + 1)
= 11 × 10,001

Clearly; 1,10,011 is divisible by 11.

(iii) 11000011

= 1,10,00,000 + 11
= 11 × (10,00,000 + 1)
= 11 × 10,00,001

Clearly; 1,10,00,011 is divisible by 11.

10. Without actual division, show that each of the following numbers is divisible by 8:

(i) 1608

$= 1600 + 8$

$= 8 \times (1600 + 1)$

$= 8 \times 1601$

1608

$= 1600 + 8$

$= 8 \times (200 + 1)$

$= 8 \times 201$

(ii) 56,008

$= 56,000 + 8$

$= 8 \times (7000 + 1)$

$= 8 \times 7001$

(iii) 240,008

$= 240,000 + 8$

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

$= 8 \times 30,001$