

HW  
2/06/2021

## Exercise - 9 (B)

1. i)  $Q = \underline{1}$  and  $R = \underline{2}$
- ii)  $Q = \underline{3}$  and  $R = \underline{0}$
- iii) Exact divisor of the number
- iv) Itself
- v) Itself
- vi) One
- vii) finite and infinite
- viii) Multiple

2. All factors of 16 are = 1, 2, 4, 8, 16

All factors of 21 are = 1, 3, 7, 21

All factors of 39 are = 1, 3, 13, 39

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iv) All factors of 48 are = 1, 2, 3, 4, 6, 8, 12, 16, 24, 48

v) All factors of 64 are = 1, 2, 4, 8, 16, 32, 64

vi) All factors of 98 are = 1, 2, 7, 14, 49, 98

3: ii) ~~1x4=4~~ Following are the first six multiples of 4

$$1 \times 4 = 4, 2 \times 4 = 8, 3 \times 4 = 12, 4 \times 4 = 16, 5 \times 4 = 20, 6 \times 4 = 24$$

$$4 = 24$$

∴ Hence, multiples of 4 are 4, 8, 12, 16, 20 and 24.

iii) Following are the first six multiples of 9

$$1 \times 9 = 9, 2 \times 9 = 18, 3 \times 9 = 27$$

$$4 \times 9 = 36, 5 \times 9 = 45, 6 \times 9 = 54$$

Hence, multiples of 9 are 9, 18, 27, 36, 45 and 54

4. 36 can be written as

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

Here, the sum of 4 and 9 is 13.

Hence, 4 and 9 are two numbers.

5. 48 can be written as

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

$$6 \times 8 = 48$$

Here, the sum of 4 and 12 is 16.

Hence, 4 and 12 are the two numbers.

6. 54 can be written as

$$1 \times 54 = 54$$

$$2 \times 27 = 54$$

$$3 \times 18 = 54$$

$$6 \times 9 = 54$$

Here, the difference between 6 and 9 is 3.

Hence, 6 and 9 are the product two numbers.

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7. 7007

This can be written as

$$= 7000 + 7$$

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

$$= 7 \times 1001$$

clearly, 7007 is divisible by 7.

8. 230023

This can be written as

$$= 230000 + 23$$

$$= 23 \times (10000 + 1)$$

$$= 23 \times 10001$$

clearly, 230023 is divisible by 23.

9. i) 11011

This can be written as

$$= 11000 + 11$$

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

$$= 11 \times 1001$$

$$= 11011$$

clearly, 11011 is divisible by 11

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ii) 110011

This can be written as

$$\begin{aligned} & 110000 + 11 \\ & = 11(10000 + 1) \\ & = 11 \times 10001 \end{aligned}$$

clearly, 110011 is divisible by 11

iii) 11000011

This can be written as

$$\begin{aligned} & 11000000 + 11 \\ & = 11(1000000 + 1) \\ & = 11 \times 1000001 \end{aligned}$$

clearly, 11000011 is divisible by 11

10. i) 1608

This can be written as

$$\begin{aligned} & 1600 + 8 \\ & = 8(200 + 1) \\ & = 8 \times 201 \end{aligned}$$

clearly, 1608 is divisible by 8

ii) 56008

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This can be written as

$$\begin{aligned} & 56000 + 8 \\ & = 8(7000 + 1) \\ & = \cancel{8 \times 7000} \\ & = 8 \times 7001 \\ & = 56008 \end{aligned}$$

clearly, 56008 is divisible by 8

iii) 240008

This can be written as

$$\begin{aligned} & 240000 + 8 \\ & = 8(30000 + 1) \\ & = 8 \times 30001 \\ & = 240008 \end{aligned}$$

clearly, 240008 is divisible by 8