

Exercise 9(B)

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} ~~number~~.

iv) Every number is a factor of itself

v) Every number is a ~~mult~~ multiple of itself

vi) 1 is a factor of every number.

vii) x is a factor of y, then y is a multiple of x.

2. i) ~~Factor~~ 16: -1, 2, 4, 8, 16

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

iii) ~~37 + 37~~: -1, 3, ~~2, 3~~, 3, 7

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

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

3. i) 4 = 4, 8, 12, 16, 20, 24,

ii) 9 = 9, 18, 27, 36, 45, 54

$1 \times 9 = 9, 2 \times 9 = 18, 3 \times 9 = 27, 4 \times 9 = 36, 5 \times 9 = 45, 6 \times 9 = 54$

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 $11 \times 1 = 11, 11 \times 2 = 22, 11 \times 3 = 33, 11 \times 4 = 44, 11 \times 5 = 55, 11 \times 6 = 66$

(iii) $12 = 12, 22, 33, 44, 55, 66$

$15 \times 1 = 15, 15 \times 2 = 30, 15 \times 3 = 45, 15 \times 4 = 60, 15 \times 5 = 75, 15 \times 6 = 90$ Hence,

(iv) $15 = 15, 30, 45, 60, 75, 90$

$18 \times 1 = 18, 18 \times 2 = 36, 18 \times 3 = 54, 18 \times 4 = 72, 18 \times 5 = 90, 18 \times 6 = 108$ Hence,

(v) $18 = 18, 36, 54, 72, 90, 108$

$16 \times 1 = 16, 16 \times 2 = 32, 16 \times 3 = 48, 16 \times 4 = 64, 16 \times 5 = 80, 16 \times 6 = 96$ Hence,

(vi) $16 = 16, 32, 48, 64, 80, 96$

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

Clearly numbers are 4 and 9 = 36 and $4 + 9 = 13$

(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 Here, the difference between 6 and 9 is 3

Hence, 6 and 9 are the two numbers.

7. Given

$$7007$$

This can be written as

$$= 7000 + 7$$

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

$$= 7 \times 1007$$

Clearly, 7000 is divisible by 7

~~Ques~~
~~1.7.21~~
~~8.~~

8. Given

$$230023$$

This can be written as

$$= 230023 + 23$$

$$= 23 \times (10001 + 1)$$

= Clearly 23 is divisible by 23.

9. i) Given

$$11011$$

This can be written as

~~$$11011$$~~

$$= 11011 + 11$$

$$= 11 \times (1001)$$

~~This~~ clearly 11011 is divisible by 11.

ii) 110011

This can be written as

$$110011 + 11$$

$$= 11 \times (10001)$$

= clearly 110011 is divisible by 11

iii) 11000011

This can be written as

$$110000 + 11$$

$$= 11 \times (100001)$$

= clearly 110001 is divisible by 11

10. i) 1608 = 1600 + 8

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

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

= 1608 is multiple of 8.

= 1608 is divisible by 8.

ii) 56008 = 56000 + 8

$$= 8 \times 7000 + 8 \times 1$$

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

iii) ~~24000~~
= ~~24000~~

iii) 240008
= 240000 + 8
= 8 × 30000 + 8 × 1
= 8 × (30000 + 1)
= 8 × 30001