

30/6-2)

EXERCISE = 9 B

Evaluation Question

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 number is a factor of itself.
- v) Every number is a multiple of itself.
- vi) 1 is 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.

i) 16

A: $16 = 1, 2, 4, 8, 16$

ii) 21

A: $21 = 1, 3, 7, 21$

iii) 39

A: $39 = 1, 3, 13, 39$

iv) 48

A: $48 = 1, 2, 3, 4, 6, 8, 12, 16, 24$ and 48.

v) 64

A: $64 = 1, 2, 4, 8, 16, 32$ and 64

vi) 98

A: $98 = 1, 2, 7, 14, 49$ and 98

3. Multiples

i) 4

A: $4 = 4, 8, 12, 16, 20, 24$

ii) 21

A: $21 = 21, 42, 63, 84, 105, 126$

iii) 11

A: $11 = 11, 22, 33, 44, 55, 66$

iv) 15

A: $15 = 15, 30, 45, 60, 75, 90$

v) 18

A: $18 = 18, 36, 54, 72, 90, 108$

vi) 16

A: $16 = 16, 32, 48, 64, 80, 96$

4. The product of two numbers is 36 and their sum is 13. Find the numbers.

A: Since, $36 = 1 \times 36, 2 \times 18, 3 \times 12, 4 \times 9, 6 \times 6$
Clearly numbers are 4 and 9 as $4 \times 9 = 36$
and $4 + 9 = 13$.

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

A: Sum of 4 and 12 is 16. Therefore, the numbers are 4 and 12.

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

A: Difference between 6 and 9 is 3.
Therefore, two numbers are 6 and 9.

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

A: $7007 = 7000 + 7$
 $= 7 \times (1000 + 1) = 7 \times 1001$
 clearly, 7007 is divisible by 7.

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

A: $2300023 = 2300000 + 23 = 23 \times (100000 + 1)$
 $= 23 \times 100001$
 clearly, 2300023 is divisible by 23.

10.

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

1608 is multiple of 8
 \therefore 1608 is divisible by 8

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

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