

Q1. F.T.A

- i) $Q=1$ and $R=2$
- ii) $Q=3$ and $R=0$
- iii) Exact divisor of the number
- iv) 9 itself
- v) 9 itself
- vi) 1
- vii) Finite and Infinite
- viii) Multiple

2. Write all the factors of:

i) 16
ans: - 1, 2, 4, 8 and 16.

ii) 21
ans: - 1, 3, 7 and 21.

iii) 39
ans: - 1, 3, 13 and 39.

iv) 48
ans: - 1, 2, 3, 4, 6, 8, 12, 24 and 48.

v) 64
ans: - 1, 2, 4, 8, 16, 32 and 64.

vi) 98
ans: - 1, 2, 7, 14, 49 and 98.

3. Write first six multiples of:

i) 4
ans: - 4, 8, 12, 16, 20 and 24.

ii) 9

ans - 9, 18, 27, 36, 45 and 54.

iii) 11

ans - 11, 22, 33, 44, 55 and 66.

iv) 15

ans - 15, 30, 45, 60, 75 and 90.

v) 18

ans - 18, 36, 54, 72, 90 and 108.

vi) 16

ans - 16, 32, 48, 64, 80 and 96.

A4. Since, $36 = 1 \times 36, 2 \times 18, 3 \times 12, 4 \times 9, 6 \times 6$

Clearly no's are 4 and 9 as $4 \times 9 = 36$ and $4 + 9 = 13$.

A5. Since, $48 = 1 \times 48, 2 \times 24, 3 \times 16, 4 \times 12$

Clearly no's are 4 and 12 as $4 \times 12 = 48$ and $4 + 12 = 16$.

A6. Since, $54 = 1 \times 54, 2 \times 27, 3 \times 18, 6 \times 9$

Clearly numbers are 6 and 9 as $6 \times 9 = 54$ and $9 - 6 = 3$.

A7. $7007 = 7000 + 7$

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

Clearly 7007 is divisible by 7

A8. $2300023 = 2300000 + 23$

$$= 23 \times (100000 + 1) = 23 \times 100001$$

Clearly 2300023 is divisible by 23

9. i) $11011 = 11,000 + 11$
 $= 11 \times (1000 + 1) = 11 \times 1,001$
Clearly 11,011 is divisible by 11

A. ii) $110011 = 11,0000 + 11$
 $= 11 \times (10,000 + 1) = 11 \times 10,001$
Clearly 1,10,011 is divisible by 11

A. iii) $11,00,0011 = 1,10,00,000 + 11$
 $= 11 \times (10,00,000 + 1) = 11 \times 10,00,001$
Clearly 1,10,00,011 is divisible by 11

10. i) $1,608 = 1,600 + 8$
 ~~$= 8 \times (200 + 1) = 8 \times 201$~~ $= 8 \times (200 + 1) = 8 \times 201$
Clearly 1,608 is clearly divisible by 8

A. ii) ~~$56,008 = 56,000 + 8$~~
 $= 8 \times (7,000 + 1) = 8 \times 7,001$
Clearly 56,008 is divisible by 8

A. iii) $2,40,008 = 2,40,000 + 8$
 $= 8 \times (30,000 + 1) = 8 \times 30,001$
Clearly 2,40,008 is divisible by 8.