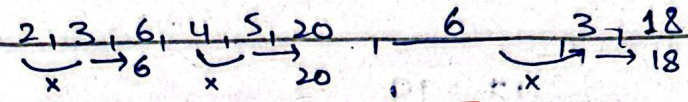
Assignment:

Q NO1:

A) Find the missing terms:

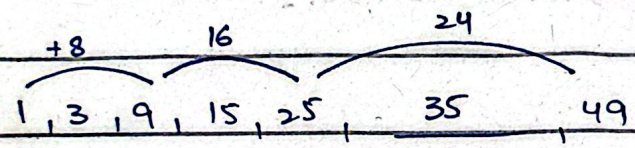
1. 2, 3, 6, 4, 5, 20, ____, 3, 18.



Missing no. is 6.

explain the logics in detail in the form of statements as well.

2. 1, 3, 9, 15, 25, ____, 49



$1^2 = 1$

$2^2 = 4 - 1 = 3$

$3^2 = 9$

$4^2 = 16 - 1 = 15$

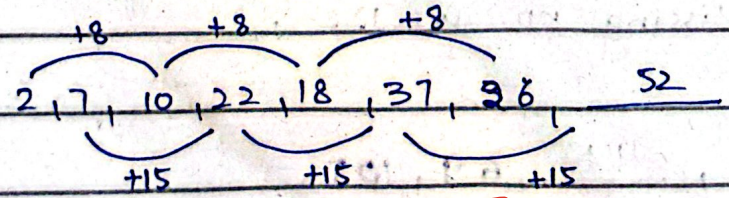
$5^2 = 25$

$6^2 = 36 - 1 = \boxed{35}$

$7^2 = 49$

Missing no. is 35.

3. 2, 7, 10, 22, 18, 37, 26, ____.



Missing no. is 52.

4. 34, 7, 37, 14, 40, 28, 43, ____ 56.

×2 ×2 ×2

+3 +3 +3

Missing no. is 56.

5. 5, 7, 11, ____ 17, 19.

5, 7, 11, (13), 17, 19.

2 3

Set of prime numbers.

35

QNO2:

I. 2, 4, 12, 48, ____ 240.

×2 ×3 ×4 ×5

Missing no. is 240.

II. 5, 10, 13, 26, 29, 58, 61, ____ 122.

×2 +3 ×2 +3 ×2 +3 ×2

Missing no. is 122.

III. 15, 19, 28, ____ 44, 69, 105.

3^2

+9

+4 +36

2^2 4^2 6^2

28+16 = 44+25 = 69 Missing no. is 44.

2
↑
C D

IV. B, E, K, W, ____ ?

5 11

V. $\{(476+424)^2 - 4 \times 476 \times 424\} = ?$

Using BODMAS rule.

$\{(900)^2 - 4 \times 476 \times 424\} = ?$

$\{810000 - 4 \times 476 \times 424\} = ?$

$\{810000 - 807296\} = ?$

$= 2704$

(3)

CSS - 2024.

a. 121, 11, 81, 9, ____, 7.

11^2 9^2 7^2

b. 100, 50, 25, ____, 6, 6.25

half half half half half

c. 4, 9, 64, 125, 1296, 2401, ___

2^2 3^2 4^3 5^3 6^4 7^4

d. 2, 5, 2, 24, 48, ___, 96

3 7 12 24 48

×2 ×2

48 96

e. 44, 22, 66, 33, 132, ___, 66

66÷2

44÷2 22×3 33×4 132÷2

⇒ Alphabetical Series:

1. A, D, I, P, Y, J, ___, W

② ④ ⑥ ⑧ ⑩ ⑫

2. AZ, GT, MN, SH, ___, YB

5 5 5 5 5 5 5 5

3. PMT, OOS, NQR, MSQ, ___

PMT, OOS, NQR, MSQ — P = P

PMT, OOS, NQR, MSQ — U P = UP

drop N drop P drop R drop T

PMT, OOS, NQR, MSQ — L U P = LUP.

4