

30/9/25

HOME WORK

Tuesday

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Q1 (A) Find missing terms

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

$2 \times 3 = 6$

$4 \times 5 = 20$

$(x) \times 3 = 18$

$x = 18 / 3$

$x = (6)$

2. 1, 3, 9, 15, 25, 35, 49

$$\begin{array}{ccccccc} & \underbrace{\quad} & \underbrace{\quad} & \underbrace{\quad} & \underbrace{\quad} & \underbrace{\quad} & \underbrace{\quad} \\ 2 & 6 & 6 & 10 & (12) & 14 \end{array}$$

$$\begin{array}{ccccccc} & \underbrace{\quad} & \underbrace{\quad} & \underbrace{\quad} & \underbrace{\quad} & \underbrace{\quad} & \underbrace{\quad} \\ 4 & 0 & 4 & (8) & 4 & 10 + 25 \\ & & & & & = (35) \end{array}$$

3. 2, 7, 10, 22, 18, 37, 26, (52)

$$\begin{array}{ccccccc} & \underbrace{\quad} & \underbrace{\quad} & \underbrace{\quad} & \underbrace{\quad} & \underbrace{\quad} & \underbrace{\quad} \\ 5 & 3 & 12 & -4 & 19 & -11 & 26 \\ & \underbrace{\quad} & \underbrace{\quad} & \underbrace{\quad} & \underbrace{\quad} & \underbrace{\quad} & \underbrace{\quad} \\ 7 & 7 & 7 & 7 & 7 & 7 & 7 \end{array}$$

$x - 26 = 26$

$x = 26 + 26 = (52)$

4. 34, 7, 37, 14, 40, 28, 43, (56)

$$\begin{array}{ccccccc} & \underbrace{\quad} & \underbrace{\quad} & \underbrace{\quad} & \underbrace{\quad} & \underbrace{\quad} & \underbrace{\quad} \\ 3 & 3 & 3 & 3 & 3 & 3 & 3 \end{array}$$

$28 \times 2 = (56)$

5. 5, 7, 11, 13, 17, 19
~~2, 3, 4, 6, 8, 9, 10, 12, 14, 15, 16, 18, 20~~

5 Prime no

7

11

(13)

Q Find missing Term

I 2, 4, 12, 48, 240, ?

$\times 2 \quad \times 3 \quad \times 4 \quad \times 5$

$48 \times 5 = (240)$

II 5, 10, 13, 26, 29, 58, 61, (122) ?
 $\times 2 \quad \times 2 \quad \times 2 \quad \times 2$

III 15, 19, 28, 44, 69, 105
 $4 \quad 9 \quad 16 \quad 25 \quad 36$

$2^2 \quad 3^2 \quad 4^2 \quad 5^2 \quad 6^2$

$(44) = 28 + 4^2$

$(44) = 69 - 5^2$

IV B, E, K, W, U ?

2, 5, 11, 23, 47

$3 \quad 6 \quad 12 \quad 24$
 $\times 2 \quad \times 2 \quad \times 2$

(47)

$47 - 26 = (21) = U$

$$v. \quad \left\{ (476 + 424)^2 - 4 \times 476 \times 424 \right\} = ?$$

$$(\overset{900^2}{900^2} - 807296)$$

$$810000 - 807296$$

$$= 2704$$

Past Paper Q: 2025 Q8 (d)

How many prime no are in b/w each of following pairs of numbers?

a) $\sqrt{3}$ and $\sqrt{120}$

$$\sqrt{3} = 1.732$$

$$\sqrt{120} = 10.954$$

$$1.7$$

$$10.954$$

2, 3, 5, 7

(4) prime no

b) $\sqrt{10}$ and $\sqrt{410}$

↓

$$3.162$$

$$20.248$$

3

20

5, 7, 11, 13, 17, 19

(6)

prim no

c) $^2\sqrt{10}$ and $^2\sqrt{999}$

3.162 $\longleftrightarrow$ 31.606

5, 7, 11, 13, 17, 19, 23, 29, 31

(4)

d) $^2\sqrt{28}$ and $\sqrt{120}$

5.29 $\longrightarrow$ 10.9

(7)

only (1) prime no

e) $^2\sqrt{8}$ and $\sqrt{400}$

2.828 $\longleftrightarrow$ 20

3, 5, 7, 11, 13, 17, 19

(7)

HLW QUESTIONS

1 BCB, DED, EGF, HH, JKT

232, 454, 676, 898, ~~9009~~

10, 11, 10

JKT

✓

2. QPO, NML, KJI, HGF EDC

17 16 15, 14, 13, 12, 11 10 9, 8, 7, 6, 5, 4

HGF

3. SCD, TEF, UGH, VIJ WKL

19, 3, 4

21, 7, 8

23, 11, 12

20, 5, 6

22, 9, 10

VIJ

4. QAR, RAS, SAT, TAU, UAV

17 1 18, 18 1 19, 19 1 20, 20 1 21, 21 1 22

UAV

5. JAK, KBL, LCM, MDN, NEO

10 1 11,

12 3 13,

14 5 15

11 2 12

13 4 14,

NEO

6. ELFA, GLHA, ILJA, KUA, MLNA

5 12 11,

7 12 8 1,

9 12 10 1,

11 12 12 1

KLLA

CSS 2021

a) 1, 8, 27, 64, 125, 216

$1^3, 2^3, 3^3, 4^3, 5^3, 6^3$

$6^3 = 216$

b) 4, 18, 48, 100, 180, 294

$8-4, 27-9, 125-25, 216-36, 343-49$
 $2^3-2^2, 3^3-3^2, 5^3-5^2, 6^3-6^2, 7^3-7^2$

4^3-4^2

$64-16 = 48$

c) 132, 156, 182, 210, 240

$+24 +26 +28 +30$

182

d) 8, 24, 48, 84, 120, 168, 224

$8 \times 3 = 24$ $12 \times 3 = 36$ $18 \times 3 = 54$

$24/2 = 12$ $36/2 = 18$ $54/2 = 27$

e) 15, 31, 63, 127, 255

$15 \times 2 + 1$

$30 + 1$

$31 \times 2 + 1$

$62 + 1$

$63 \times 2 + 1$

$126 + 1$

$127 \times 2 + 1$

$254 + 1$

255

CSS 2024

a. $121, 11, 81, 9, 49, 7$
 $11^2 \quad 11^1 \quad 9^2 \quad 9^1 \quad 7^2 \quad 7^1$

(49)

b. $100, 50, 25, 12.5, 6.25$

$\frac{100}{2} \quad \frac{50}{2} \quad \frac{25}{2} \quad \frac{12.5}{2}$

(12.5)

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

~~$2^2, 3^2, 8^2, 5^2$~~

$2^2, 3^2, 8^2, 125, 36^2, 1296$

$2^2, 3^2, 4^3, 5^3, 6^4, 7^4$

d. $2, 5, 12, 24, 48, 96$

~~2×2~~ $\downarrow \quad \downarrow \quad \downarrow \quad \downarrow \quad \downarrow$
 $\times 2 \quad \times 2 \quad \times 2 \quad \times 2 \quad \times 2$

(96)

~~$2 \times 2 \times 2$~~ $5 \times 2 = 12$

$5 - 2 = 3$ 5×4

$12 - 5 = 7$ 5×12

$24 - 12 = 12$ 5×24

$48 - 24 = 24$ 12×24

e. $24, 22, 66, 33, 132, 66, 330$

~~$4 \times 11, 2 \times 11, 6 \times 11, 3 \times 11, 12 \times 11$~~

$\frac{44}{2} = 22$

$22 \times 3 = 66$

$\frac{66}{2} = 33$

$33 \times 4 = 132$

$\frac{132}{2} = 66$

$66 \times 5 = 330$