

30/9/25 HOME WORK

HOME WORK

Tuesday

MARVA SHAHZADI

Q1 (A) Find missing terms

1. 2, 3, 6, 4, 5, 20, ~~6~~⁴ 3, 18

$$2 \times 3 = 6$$

$$4 \times 5 = 20$$

$$(2) \quad 2 \times 3 = 18$$

$$u = 18/3$$

$$x = 6$$

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

2 6 10 14

4 0 4 0 4 10

$$10 + 25 = 35$$

explain these logics in the form of statements as well.

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

5 3 12 -4 19 -11 26

7 7 7

~~$x - 26 = 26$~~

$$u = 26 + 26 + 52$$

4. 34, 7, 37, 14, 40, 28, 43, 58

~~3 3 3~~

$$28 \times 2 = 56$$

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

5 Prime no

7

11

(13)

14

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 9 16 25 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 6 12 24

$\times 2 \quad \times 2 \quad \times 2$

(47)

$47 - 26 = (21) = U$

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

$$\left(900^2 - 807296 \right)$$

$$810000 - 807296$$

$$= 2704$$

Past Paper Q: 2025 Q2 (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) $\sqrt[3]{10}$ and $\sqrt[3]{410}$

↓

$$3.162$$

$$7.416$$

$$3$$

$$20$$

5, 7, 11, 13, 17, 19

(6)

prim no

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

3.162

31.606

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

④

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

5.29

10.9

⑦

only ① prime no

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

2.828

20

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

⑦

HW 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, KUAL, MLNA

5 12 11,

7 12 11,

9 12 10 1,

11 12 12 1

KLLA

CSS 2022

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, 72, 96, 120, 144, 168, 192, 216, 240, 264, 288, 312, 336, 360, 384, 408, 432, 456, 480, 504, 528, 552, 576, 600, 624, 648, 672, 696, 720, 744, 768, 792, 816, 840, 864, 888, 912, 936, 960, 984, 1008, 1032, 1056, 1080, 1104, 1128, 1152, 1176, 1200, 1224, 1248, 1272, 1296, 1320, 1344, 1368, 1392, 1416, 1440, 1464, 1488, 1512, 1536, 1560, 1584, 1608, 1632, 1656, 1680, 1704, 1728, 1752, 1776, 1800, 1824, 1848, 1872, 1896, 1920, 1944, 1968, 1992, 2016, 2040, 2064, 2088, 2112, 2136, 2160, 2184, 2208, 2232, 2256, 2280, 2304, 2328, 2352, 2376, 2400, 2424, 2448, 2472, 2496, 2520, 2544, 2568, 2592, 2616, 2640, 2664, 2688, 2712, 2736, 2760, 2784, 2808, 2832, 2856, 2880, 2904, 2928, 2952, 2976, 3000, 3024, 3048, 3072, 3096, 3120, 3144, 3168, 3192, 3216, 3240, 3264, 3288, 3312, 3336, 3360, 3384, 3408, 3432, 3456, 3480, 3504, 3528, 3552, 3576, 3600, 3624, 3648, 3672, 3696, 3720, 3744, 3768, 3792, 3816, 3840, 3864, 3888, 3912, 3936, 3960, 3984, 4008, 4032, 4056, 4080, 4104, 4128, 4152, 4176, 4200, 4224, 4248, 4272, 4296, 4320, 4344, 4368, 4392, 4416, 4440, 4464, 4488, 4512, 4536, 4560, 4584, 4608, 4632, 4656, 4680, 4704, 4728, 4752, 4776, 4800, 4824, 4848, 4872, 4896, 4920, 4944, 4968, 4992, 5016, 5040, 5064, 5088, 5112, 5136, 5160, 5184, 5208, 5232, 5256, 5280, 5304, 5328, 5352, 5376, 5400, 5424, 5448, 5472, 5496, 5520, 5544, 5568, 5592, 5616, 5640, 5664, 5688, 5712, 5736, 5760, 5784, 5808, 5832, 5856, 5880, 5904, 5928, 5952, 5976, 6000, 6024, 6048, 6072, 6096, 6120, 6144, 6168, 6192, 6216, 6240, 6264, 6288, 6312, 6336, 6360, 6384, 6408, 6432, 6456, 6480, 6504, 6528, 6552, 6576, 6600, 6624, 6648, 6672, 6696, 6720, 6744, 6768, 6792, 6816, 6840, 6864, 6888, 6912, 6936, 6960, 6984, 7008, 7032, 7056, 7080, 7104, 7128, 7152, 7176, 7200, 7224, 7248, 7272, 7296, 7320, 7344, 7368, 7392, 7416, 7440, 7464, 7488, 7512, 7536, 7560, 7584, 7608, 7632, 7656, 7680, 7704, 7728, 7752, 7776, 7800, 7824, 7848, 7872, 7896, 7920, 7944, 7968, 7992, 8016, 8040, 8064, 8088, 8112, 8136, 8160, 8184, 8208, 8232, 8256, 8280, 8304, 8328, 8352, 8376, 8400, 8424, 8448, 8472, 8496, 8520, 8544, 8568, 8592, 8616, 8640, 8664, 8688, 8712, 8736, 8760, 8784, 8808, 8832, 8856, 8880, 8904, 8928, 8952, 8976, 9000, 9024, 9048, 9072, 9096, 9120, 9144, 9168, 9192, 9216, 9240, 9264, 9288, 9312, 9336, 9360, 9384, 9408, 9432, 9456, 9480, 9504, 9528, 9552, 9576, 9600, 9624, 9648, 9672, 9696, 9720, 9744, 9768, 9792, 9816, 9840, 9864, 9888, 9912, 9936, 9960, 9984, 10000

$8 \times 3 = 24$ $12 \times 3 = 36$ $18 \times 3 = 54$
 $24/2 = 12$ $36/2 = 18$ $54/2 = 27$

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

(19)

b. $100, 50, 25, \frac{12.5}{2}, 6.25$

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

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

$\sqrt{2} \quad \sqrt{5} \quad \sqrt{12} \quad \sqrt{24} \quad \sqrt{48} \quad \sqrt{96}$

(96)

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

$5 - 2 = 3$

$12 - 5 = 7$

$24 - 12 = 12$

$48 - 24 = 24$

e. $214, 22, 66, 33, 132, (66), 330$

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

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

$22 \times (3) = 66$

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

$33 \times (4) = 132$

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

$66 \times (5) = 330$

14