

23/6/25 Monday

Math Homework - Number Series

Q. Find the missing terms.

a. 121, 11, 81, 9, —, 7

b. 100, 50, 25, —, 6.25

c. 4, 9, 64, 125, 1296, —

d. 2, 5, 12, 24, 48, —

e. 44, 22, 66, 33, 132, —

a. 121, 11, 81, 9, —, 7

$11^2, 9^2, 7^2$

121, 11, 81, 9, 49, 7

b. 100, 50, 25, —, 6.25

$\begin{array}{cccc} \swarrow & \swarrow & \swarrow & \swarrow \\ \times 2 & 2 & 2 & 2 \end{array}$

100, 50, 25, 12.50, 6.25

c. 4, 9, 64, 125, 1296, —
 $2^2, 3^2, 4^3, 5^3, 6^4, 7^4$

49, 64, 125, 1296, 2401

d. 2, 5, 12, 24, 48, —
 $\times 2 \quad \times 2 \quad \times 2$

2, 5, 12, 24, 48, 96

e. 44, 22, 66, 33, 132, —
 $\times 2 \quad \times 2 \quad \times 2$

44, 22, 66, 33, 132, 66

2	6	18
4	20	100
?	21	147

Solve the puzzle.

First Row = 2, 6, 18, all multiplied by 3
 $2 \times 3 = 6$
 $6 \times 3 = 18$

Second Row = 4, 20, 100, all multiplied by 5

$$4 \times 5 = 20$$

$$20 \times 5 = 100$$

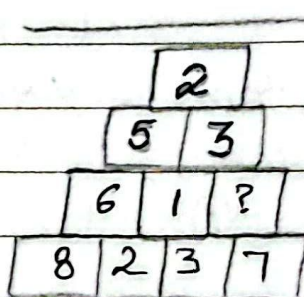
Third Row = ?, 21, 147

$$147 / 21 = 7, \text{ so by that logic}$$

$$x \times 7 = 21$$

$$x = 3$$

So ? = 3 and if we multiply that by 7, we get 21



Adding values up vertically reveals a pattern e.g. on the left side, $5 + 1 = 6$, $5 + 1 + 2 = 8$, reveals values on the left side of the pyramid.

Applying the same logic to the right side, $3 + 1 = \underline{4}$, $3 + 1 + 3 = 7$.

So the ? is 4.

$$2+7=27$$

$$4+4=24$$

$$5+9=42$$

$$6+0=?$$

$$2+7=9$$

$$9 \times 3 = 27$$

$$4+4=8$$

$$8 \times 3 = 24$$

$$5+9=14$$

$$14 \times 3 = 42$$

$$6+0=6$$

$$6 \times 3 = 18$$

$$\underline{? = 18}$$

Q. Find the missing term in given.

a) AZ, GT, MN, — YB

(1)(26), (7)(20), (13)(14) — (25)(2)

$$A+6=7(G)$$

$$Z-6=20(T)$$

$$G+6=13(M)$$

$$T-6=14(N)$$

$$M+6=19(\underline{S})$$

$$N-6=8(\underline{H})$$

AZ, GT, MN, SH, YB

b) PMT, OOS, NQR, MSQ, —

(16)(13)(20), (15)(15)(19), (14)(17)(18), (13)(19)(17)

P=16, O=15, N=14, M=13, L=12

M=13, O=15, Q=17, S=19, U=21

T=20, S=19, R=18, Q=17, P=16

LUP=(12)(21)(16)

PMT, OOS, NQR, MSQ, LUP

c) The word SUPERMAN is written as a code TTQDSLBM, then the code of SPIDERMAN is?

S U P E R M A N

19 21 16 5 18 13 1 14

T T Q D S L B M

20 20 17 4 19 12 2 13

+1 -1 +1 -1 +1 -1 +1 -1

S P I D E R M A N

19 16 9 4 5 18 13 1 14

20 15 10 3 6 17 14 0 13

TOJCFQNZM

d) PAKISTAN : SCLIRR X J
PESHAWAR : ??

P	A	K	I	S	T	A	N
16	1	11	9	19	20	1	14

S	C	L	I	R	R	X	J
19	3	12	9	18	18	24	10

+3 +2 +1 0 -1 -2 -3 -4

P	E	S	H	A	W	A	R
16	5	19	8	1	23	1	18

S	G	T	H	Z	U	X	N
19	7	20	8	0	21	24	14

• PESHAWAR : SGTHZUXN

e) CERTAIN : BFGUZJM
MUNDANE : ??

C	E	R	T	A	I	N
3	5	18	20	1	9	14

B	F	Q	U	Z	J	M
2	6	17	21	26	10	13

-1 +1 -1 +1 -1 +1 -1

M U N D A N E
13 21 14 4 1 14 5

L V M E Z O D
12 22 13 5 0 15 4

• MUNDANE: LVMEZOD

Q. If in a certain language BROTHER is written as QDGSNQA, then SISTER would be written as?

B R O T H E R
2 18 15 20 8 5 18

Q D G S N Q A
17 4 7 19 14 17 1

+15 -14 -8 -1 +6 +12 -17

S I S T E R
19 9 19 20 5 18

$$15 + 19 = 34 \text{ (H)}$$

$$-14 + 9 = -5, 26 - 5 = 21 \text{ (U)}$$

$$-8 + 19 = 11 \text{ (K)}$$

$$-1 + 20 = 19 \text{ (S)}$$

$$6 + 5 = 11 \text{ (K)}$$

$$12 + 18 = 30, 30 - 26 = 4 \text{ (D)}$$

• SISTER: HUKSKD

Galaxy

Q. COMPUTER : RFUVGNPC
MEDICINE : ??

C	O	M	P	U	T	E	R
3	15	13	16	21	20	5	18

R	F	U	V	Q	N	P	C
18	6	21	22	17	14	16	3

+15 -9 +8 +6 -4 -6 +11 -15

M	E	D	I	C	I	N	E
13	5	4	9	3	9	14	5

$$15 + 13 = 28, 28 - 26 = 2 (B)$$

$$-9 + 5 = -4, 26 - 4 = 22 (V)$$

$$8 + 4 = 12 (L)$$

$$6 + 9 = 15 (O)$$

$$-4 + 3 = -1, 26 - 1 = 25 (Y)$$

$$-6 + 9 = 3 (C)$$

$$11 + 14 = 25 (Y)$$

$$-15 + 5 = -10, 26 - 10 = 16 (P)$$

• MEDICINE : BVLOYCYP

Q. Look at this series : F2, —, D8, C16, B32. What number should fill the blank?

$$B \rightarrow C \rightarrow D \rightarrow \underline{E} \rightarrow F$$

$$2 \times 2, 4 \times 2, 8 \times 2, 16 \times 2$$

$$F2, E4, D8, C16, B32$$

Q. LA DLNE : PYRBQE-RC
HOMEMADE :

L	A	N	D	L	I	N	E
12	1	14	4	13	9	14	5

P	Y	R	B	Q	E	R	C
16	25	18	2	17	7	18	3

$$+4 + 24 + 4 - 2 + 4 - 2 + 4 - 2$$

$$4 + 8 = 12 (L)$$

$$24 + 15 = 39, 39 - 26 = 13 (H)$$

$$4 + 13 = 17 (Q)$$

$$-2 + 5 = 3 (C)$$

$$4 + 13 = 17 (Q)$$

$$-2 + 1 = -1, 26 - 1 = 25 (Y)$$

$$4 + 4 = 8 (H)$$

$$-2 + 5 = 3 (C)$$

HOMEMADE : L M Q C Q Y H C