

* MISSING NUMBER *

Logic :-

(i)

→	→	→	✓
→	→	→	✓
→	→	→	?

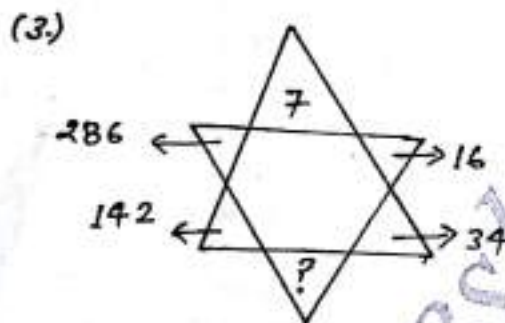
(ii)

↓	↓	↓	
↓	↓	↓	
↓	↓	↓	
✓	✓	?	

(iii)

↘	→	✓
↓		
✓		?

(1) 2, 4, 6, 8, ?
= 10



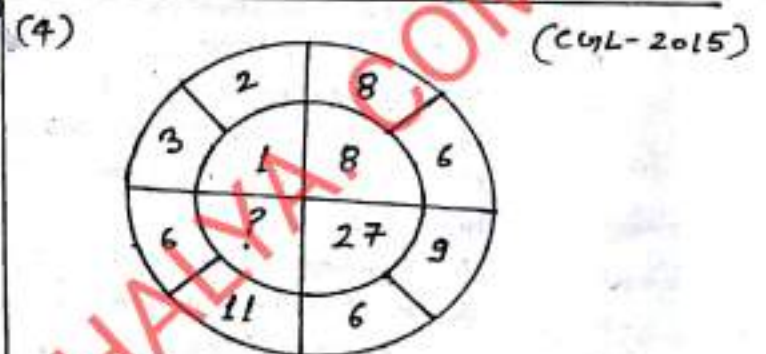
$$\begin{aligned} \Rightarrow 7 \times 2 + 2 &= 16 \\ 16 \times 2 + 2 &= 34 \\ 34 \times 2 + 2 &= \boxed{70} \\ 70 \times 2 + 2 &= 142 \\ 142 \times 2 + 2 &= 286 \end{aligned}$$

(2)

$\begin{array}{c} 3 \quad 5 \\ \triangle \\ 17 \\ \downarrow \\ 3 \times 5 + 2 \\ = 17 \end{array}$

$\begin{array}{c} 8 \quad 3 \\ \triangle \\ 29 \\ \downarrow \\ 8 \times 3 + 5 \\ = 29 \end{array}$

$\begin{array}{c} 7 \quad 6 \\ \triangle \\ 51 \\ \downarrow \\ 7 \times 6 + ? = 51 \\ x = 51 - 42 \\ x = \boxed{9} \end{array}$



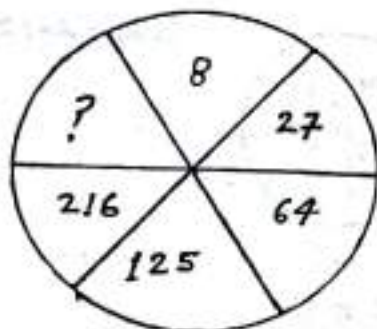
$$\begin{aligned} \Rightarrow 3 - 2 &= 1 \Rightarrow (1)^3 = 1 \\ 8 - 6 &= 2 \Rightarrow (2)^3 = 8 \\ 9 - 6 &= 3 \Rightarrow (3)^3 = 27 \\ 11 - 6 &= 5 \Rightarrow (5)^3 = \boxed{125} \end{aligned}$$

(5)

3	2	13
5	2	29
8	4	?

(a) 78 $\Rightarrow (3)^2 + (2)^2 = 13$
 (b) 79 $(5)^2 + (2)^2 = 29$
 (c) 80 $(8)^2 + (4)^2 = \boxed{80}$
 (d) 81

(6.)



(a) 343

(CGL-2014)

(b) 341

(c) 2

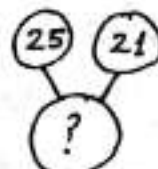
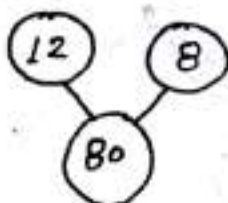
(d) 1

(e) a or d (✓)

$$\Rightarrow 1 \Rightarrow (1)^3 = \boxed{1}, 2^3 = 8, 3^3 = 27, 4^3 = 64, 5^3 = 125, 6^3 = 216, 7^3 = \boxed{343}$$

TYPE-1 :

(7.)



$$\Rightarrow 12 = (12)^2 = 144$$

$$(16)^2 = 256$$

$$(25)^2 = 625$$

$$8 = (8)^2 = 64$$

$$(7)^2 = 49$$

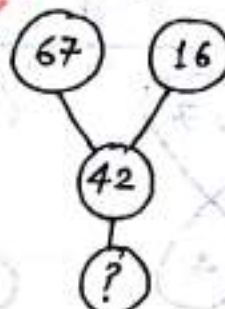
$$(21)^2 = 441$$

$$\underline{\underline{80}}$$

$$\underline{\underline{207}}$$

$$\underline{\underline{184}}$$

(8.)



$$\Rightarrow 93 - 27 - 3 = 63$$

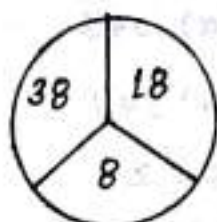
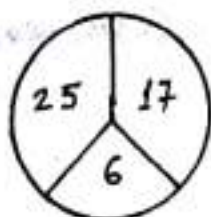
$$79 - 38 - 4 = 37$$

$$67 - 16 - x = 42$$

$$\Rightarrow 42 = 51 - x$$

$$x = \boxed{9}$$

(9.)



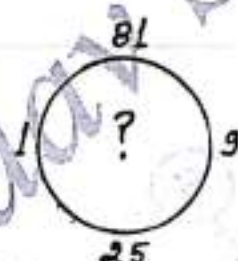
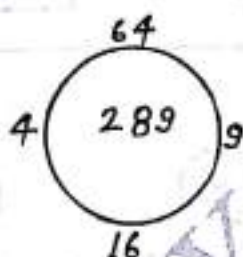
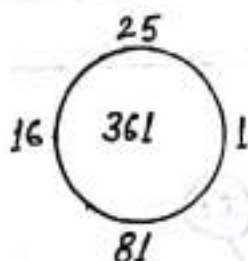
(CPO-2013)

$$\Rightarrow 25 + 17 = \frac{42}{7} = 6$$

$$38 + 18 = \frac{56}{7} = 8$$

$$89 + 16 = \frac{105}{7} = \boxed{15}$$

(10.)



(CPO-2011)

$$\Rightarrow \sqrt{16} = 4$$

$$\sqrt{25} = 5$$

$$\sqrt{1} = 1$$

$$\sqrt{81} = 9$$

$$\Rightarrow 4 + 5 + 1 + 9 = 19$$

$$\text{Now, } (19)^2 = 361$$

$$\sqrt{4} = 2$$

$$\sqrt{64} = 8$$

$$\sqrt{9} = 3$$

$$\sqrt{16} = 4$$

$$\Rightarrow 2 + 8 + 3 + 4 = 17$$

$$(17)^2 = 289$$

$$\sqrt{1} = 1$$

$$\sqrt{81} = 9$$

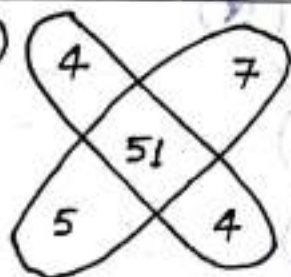
$$\sqrt{9} = 3$$

$$\sqrt{25} = 5$$

$$\Rightarrow 1 + 9 + 3 + 5 = 18$$

$$(18)^2 = \boxed{324}$$

(11.)



(SSC-LDC-2011)

$$\Rightarrow 7 \times 5 = 35$$

$$4 \times 4 = 16$$

$$\begin{array}{r} 35 \\ + 16 \\ \hline 51 \end{array}$$

$$5 \times 6 = 30$$

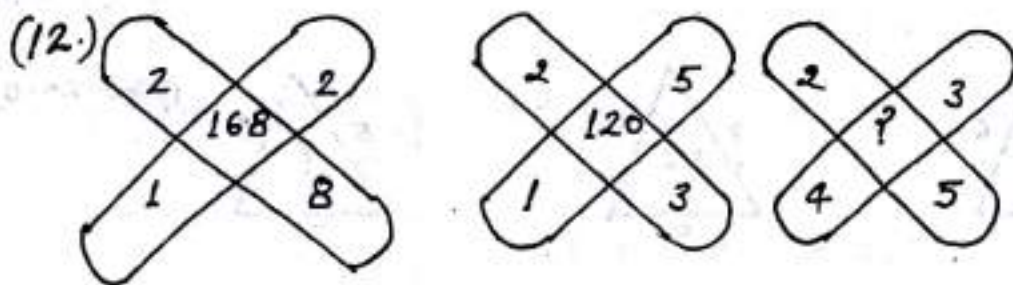
$$3 \times 3 = 9$$

$$\begin{array}{r} 30 \\ + 9 \\ \hline 39 \end{array}$$

$$5 \times 7 = 35$$

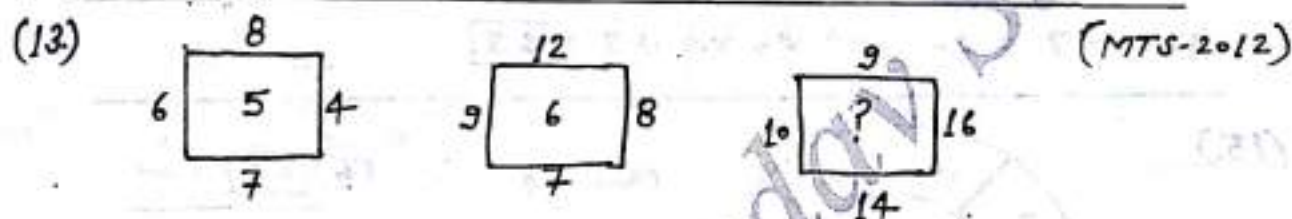
$$4 \times 2 = 8$$

$$\begin{array}{r} 35 \\ + 8 \\ \hline 43 \end{array}$$



$$\Rightarrow 2+2+8+1=13 \quad | \quad 2+5+3+1=11 \quad | \quad 2+3+5+4=14$$

$$(13)^2 = 169-1=168 \quad | \quad (11)^2 = 121-1=120 \quad | \quad (14)^2 = 196-1=195$$



$$\Rightarrow 6+8+4+7=25 \quad | \quad 9+12+8+7=36 \quad | \quad 10+9+16+14=49$$

$$\sqrt{25}=5 \quad | \quad \sqrt{36}=6 \quad | \quad \sqrt{49}=7$$

OR



$\boxed{9} \rightarrow \text{Unit Place}$

OR

$$8-4=4$$

$$12-8=4$$

$$16-9=7 \quad (\text{CGL-2016})$$

$$7-6=\frac{1}{5}$$

$$9-7=\frac{2}{6}$$

$$14-10=\frac{4}{11}$$

OR

$$(6-4)^2=4$$

$$(9-8)^2=1$$

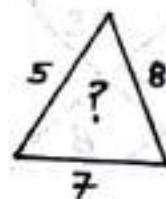
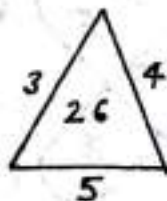
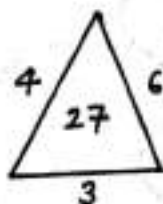
$$(16-10)^2=36 \quad (\text{CGL-2016})$$

$$(0-7)^2=\frac{1}{5}$$

$$12-7=\frac{5}{6}$$

$$14-9=\frac{5}{41}$$

(14.)



(CGL-2008)

(a) 41

(b) 38

(c) 43

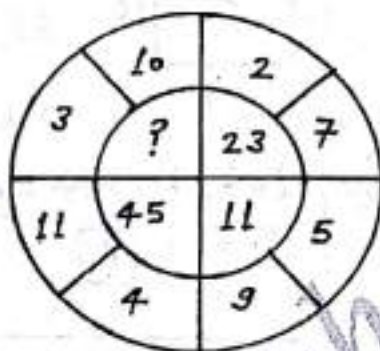
(d) 40

$$\Rightarrow 4 + 6 + 3 = 13 \rightarrow 13 \times 2 + 1 = 27$$

$$3 + 4 + 5 = 12 \rightarrow 12 \times 2 + 2 = 26$$

$$5 + 8 + 7 = 20 \rightarrow 20 \times 2 + 3 = \boxed{43}$$

(15.)



(a) 34

(b) 46

(c) 91

(d) 21

$$\Rightarrow 7 - 2 = 5 \rightarrow (5)^2 = 25 - 2 = 23$$

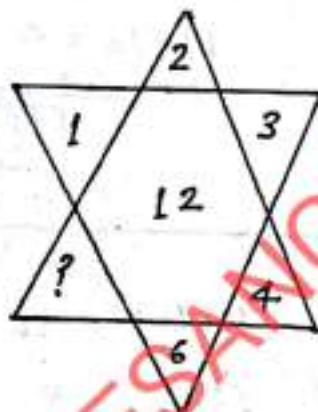
$$9 - 5 = 4 \rightarrow (4)^2 = 16 - 5 = 11$$

$$11 - 4 = 7 \rightarrow (7)^2 = 49 - 4 = 45$$

$$\Rightarrow 10 - 3 = 7 \rightarrow (7)^2 = 49 - 3 = \boxed{46}$$

(CGL-2015)

(16.)



(CPO-2015)

$$\Rightarrow 2 \times 6 = 12$$

$$3 \times 4 = 12$$

$$1 \times ? = 12$$

$$? = \boxed{12}$$

(A) 8

(B) 1

(C) 12

(D) 6

TYPE-2 :

(17.)

14	16	18
26	32	18
10	12	?

$$\Rightarrow (14+26) \div 4 = 10$$

$$(16+32) \div 4 = 12$$

$$(18+18) \div 4 = \boxed{9}$$

(18.)

42	44	38
28	55	23
39	?	37

(a) 11 (b) 33 (c) 66 (d) 22 (✓)

$$\Rightarrow 42 - 38 = 4 \times 11 = 44$$

$$28 - 23 = 5 \times 11 = 55$$

$$39 - 37 = 2 \times 11 = \boxed{22}$$

(19.)

72	24	6
96	18	12
108	?	18

$$\Rightarrow 72 \div 6 = 12 \times 2 = 24 \quad (\text{CGL-2011})$$

$$96 \div 12 = 8 \times 2 = 16$$

$$108 \div 18 = 6 \times 2 = \boxed{12}$$

(20.)

1	2	3
11	7	5
120	45	?

$$\Rightarrow (11)^2 - (1)^2 = 120 \quad (\text{CPO-2013})$$

$$(7)^2 - (2)^2 = 45$$

$$(5)^2 - (3)^2 = \boxed{16}$$

(21.)

31	17	58	87
68	19	61	56
91	22	70	50
10	142	11	?

$$\Rightarrow 31 + 68 + 91 + 10 = 200 \quad (\text{CGL-2013})$$

$$17 + 19 + 22 + 142 = 200$$

$$58 + 61 + 70 + 11 = 200$$

$$\therefore 87 + 56 + 50 + x = 200$$

$$x = 200 - 193 = \boxed{7}$$

(22.)

729	3	216
343	?	64

$$\Rightarrow 729 = 9^3 \rightarrow 9$$

$$216 = (6)^3 \rightarrow 6 \rightarrow 9 - 6 = 3$$

$$343 = (7)^3 \rightarrow 7$$

$$64 = (4)^3 \rightarrow 4 \rightarrow 7 - 4 = \boxed{3}$$

(a) 1 (b) 2 (c) 4 (d) 3 (✓)

(23.)

963	2	844
464	?	903

(a) 2 (✓) (b) 3 (c) 1 (d) 4 (MTS-2014)

$$\Rightarrow (9+6+3) - (8+4+4) = 18 - 16 = 2$$

$$(4+6+4) - (9+0+3) = 14 - 12 = \boxed{2}$$

(24.)

7	9	5	11
4	15	12	7
13	8	11	?

$$\Rightarrow 7+9-5 = 11$$

(CGL-2012)

$$4+15-12 = 7$$

$$13+8-11 = \boxed{10}$$

(25.)

7	8	10	11	13	16
(29)	9	(38)	12	(?)	11

(CGL-2016)

$$\Rightarrow 7+8+9 = 24+5 = 29$$

$$10+11+12 = 33+5 = 38$$

$$13+16+11 = 40+5 = \boxed{45}$$

(26.)

A	D	H
F	I	M
?	N	R

↓

K

$$\Rightarrow \begin{matrix} 1 & +3 & 4 & +4 & 8 \\ 6 & +3 & 9 & +4 & 13 \\ 11 & & 14 & +4 & 18 \end{matrix}$$

(CGL-2014)

↓

K

(According to Place Value)

(27.)

F	I	O
A	J	K
P	M	?

↓

C

$\Rightarrow$ (According to place Value) -

$$\begin{matrix} F & I & O \\ 6 & + & 9 & \rightarrow & 15 \end{matrix}$$

(CGL-2014)

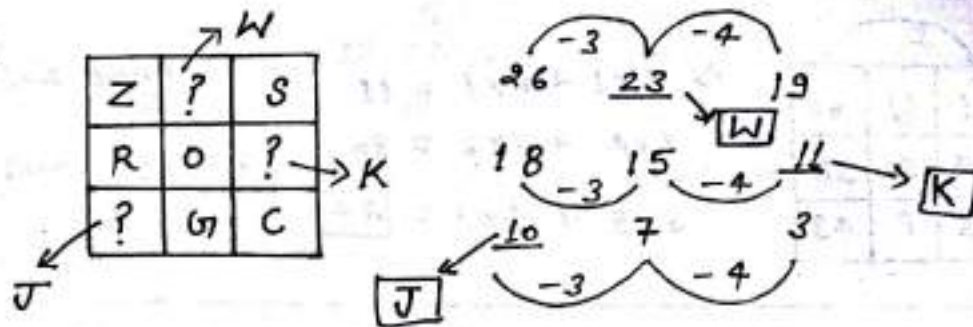
$$\begin{matrix} A & J & K \\ 1 & + & 10 & \rightarrow & 11 \end{matrix}$$

$$\begin{matrix} P & M \\ 16 & + & 13 & \rightarrow & (29) & \rightarrow & 26 + (3) \end{matrix}$$

↓

C

(28.)



(29.)

2	2	2
3	2	1
2	3	4
25	64	?

$\rightarrow$ Row of Power
 $\rightarrow$ 81

$$2+3 = (5)^2 = 25$$

$$2+2 = (4)^2 = 16$$

$$2+1 = (3)^2 = 9$$

(CGL-2015)

(30.)

1	2	3	2	10	12
2	5	12	10	16	13
1	2	1	?	10	24

$$\Rightarrow 1+2+1 = 4 = (2)^2$$

$$2+5+2 = 9 = (3)^2$$

$$3+12+1 = 16 = (4)^2$$

$$2+10+13 = 25 = (5)^2$$

$$10+16+10 = 36 = (6)^2$$

$$12+13+24 = 49 = (7)^2$$

(IBPS-2014)

(31.)

$\div 2$ $\uparrow$	$\times 2$ $\uparrow$	
6	11	25
8	6	16
12	5	?

$$\Rightarrow (6 \div 2) + (11 \times 2) = 25$$

$$(8 \div 2) + (6 \times 2) = 16$$

$$(12 \div 2) + (5 \times 2) = 16$$

(IB-2013)

(a) 12 (b) 16 (c) 22 (d) 18

(32.)

51	11	61
64	30	32
35	?	43

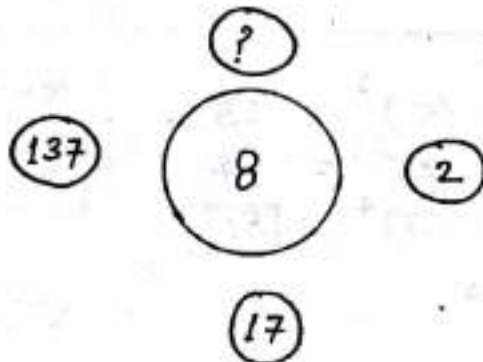
$$\Rightarrow 5 \times 1 + 6 \times 1 = 11$$

$$6 \times 4 + 3 \times 2 = 30$$

$$3 \times 5 + 4 \times 3 = \boxed{27}$$

(CGL-2011)

(33.)



$$\Rightarrow 2 \times 8 = 16 + 1 = 17$$

$$17 \times 8 = 136 + 1 = 137$$

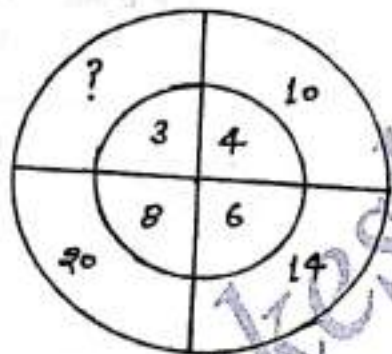
$$137 \times 8 = 1096 + 1 = \boxed{1097}$$

(a) 97

(b) 907

(c) 1097 (d) 9107

(34.)



(A) 18

(B) 19 (✓)

(C) 12

(D) 24

$$\Rightarrow 3 \times 2 + 4 = 10$$

$$4 \times 2 + 6 = 14$$

$$6 \times 2 + 8 = 20$$

$$8 \times 2 + 3 = \boxed{19}$$

(CGL-2012)

(35.)

	8	
6	54	7
	4	

	12	
8	51	4
	7	

	14	
9	?	5
	9	

(LDC-2015)

(A) 68 (✓)

(B) 71

(C) 53

(D) 76

$$\Rightarrow 7 \times 6 + (8 + 4) = 42 + 12 = 54$$

$$4 \times 8 + (12 + 7) = 32 + 19 = 51$$

$$5 \times 9 + (14 + 9) = 45 + 23 = \boxed{68}$$

(36.)

	18		11		6		12
9	38	6	19	32	9	26	44
	17		11		15		8

- (A) 9 (✓) (B) 40 (C) 7 (D) 36

$$\Rightarrow (18+17)+(9-6) = 38$$

(SBI-PO-2015)

$$(11+11)+(19-9) = 32$$

$$(15+6)+(26-3) = 44$$

$$(12+8)+(20-9) = \boxed{9}$$

(37.)

7	8	5
6	9	?
2	3	6

$\Rightarrow$ In column wise — (CGL-2014)

$$7 \times 6 \times 2 = 84$$

$$8 \times 9 \times 3 = 216$$

$$5 \times x \times 6 = 900$$

$$x = \boxed{30}$$

(A) 90

(B) 70

(C) 65

(D) 30 (✓)

(38.)

96	?	168
32	48	56
16	24	28

$\Rightarrow$ 2nd row is $\frac{1}{3}$ rd of 1st row

3rd row is $\frac{1}{6}$ th of 1st row.

(A) 52

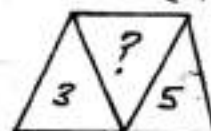
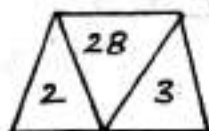
(B) 144 (✓)

(CGL-2011)

(C) 64

(D) 38

(39.)



(A) 34

(B) 40 (✓)

(C) 49

(D) 53

$$\Rightarrow 2, 3 \rightarrow 2 \times 3 + 5 = 28$$

$$4, 5 \rightarrow 4 \times 5 + 5 = 50$$

$$3, 5 \rightarrow 3 \times 5 + 5 = \boxed{40}$$