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## Chapter:-1 Number Series Completion

**1, 9, 25, 49, ?, 121.** What will come at the place of question mark ?

- A.  100
- B.  91
- C.  64
- D.  81

**Answer:** Option D

**Solution:**

$$\begin{aligned}1^2 &= 1. \\3^2 &= 9. \\5^2 &= 25. \\7^2 &= 49. \\9^2 &= \mathbf{81}. \\11^2 &= 121.\end{aligned}$$

2.

**4, 7, 12, 19, 28, ?**

- A.  49
- B.  36
- C.  30
- D.  39

**Answer:** Option D

**Solution:**

$$\begin{aligned}\text{First term, } 4 \\ \text{Second, } 4+3 = 7. \\ \text{Third, } 7+5 = 12.\end{aligned}$$

Fourth,  
 $12+7 = 19$ .  
Fifth,  
 $19+9 = 28$ .  
Therefore,  
 $28+11 = \mathbf{39}$  will be the required term.

3.

**6, 11, 21, 36, 56, ?**

- A.  91
- B.  51
- C.  81
- D.  42

**Answer:** Option C

**Solution:**

$$6 (+5) \rightarrow 11 (+10) \rightarrow 21 (+15) \rightarrow 36 (+20) \rightarrow 56 (+25) \rightarrow 81.$$

4.

**10, 100, 200, 310, ?**

- A.  430
- B.  420
- C.  410
- D.  400

**Answer:** Option A

**Solution:**

1st term : 10  
2nd term :  $100 = 10+90$   
3rd term :  $200 = 100+100$   
4th term :  $310 = 200+110$   
5th Term:  $430 = 310+120$

C.  2356

D.  2456

Therefore, the answer is 430.

8, 28, 116, 584, ?

A.  1752

B.  3504

C.  3508

D.  3502

In the following number series a wrong number is given. Find out the wrong number.

150, 450, 750, 1060, 1350, 1650, 1950

A.  1060

B.  1950

C.  450

D.  1350

E.  750

**Answer:** Option A

**Solution:**

By adding 300 to each term, we get the next term. 1060 is wrong term. It should be 1050.

5690, 5121, 4552, 3983, 3414, 2845, ?

A.  2276

B.  2516

**Answer:** Option A

**Solution:**

By subtracting 569, we get the next term.

Required number,

$$= 2845 - 569$$

$$= 2276$$

6, 13, 28, 59, ?, 249.

A.  124

B.  122

C.  120

D.  118

**Answer:** Option B

**Solution:**

First term  $\rightarrow 6$

Second term  $\rightarrow (6 \times 2 + 1) = 13$

Third term  $\rightarrow (13 \times 2 + 2) = 28$

Fourth term  $\rightarrow (28 \times 2 + 3) = 59$

Fifth term  $\rightarrow (59 \times 2 + 4) = 122$

Sixth term  $\rightarrow (122 \times 2 + 5) = 249$

So, the required term = 122.

4, 8, 10, 14, 16, 20, ?

A.  22

B.  21

C.  20

D.  16

**Answer:** Option A

**Solution:**

Above series contains two sub-series in it.

4, 10, 16, 22

8, 14, 20

Each of both term there is difference of 6 i.e. next term is 6 greater than previous term.

15.

9, 17, 33, 65, ?

- A. 117
- B. 119
- C. 129
- D. 99

**Answer:** Option C

**Solution:**

First term → 9

Second term →  $(9 * 2 - 1) = 17$

Third term →  $(17 * 2 - 1) = 33$

Fourth term →  $(33 * 2 - 1) = 65$

Fifth term →  $(65 * 2 - 1) = 129$

16.

2, 3, 6, 15, ?, 123

- A. 47
- B. 42
- C. 45
- D. 50

**Answer:** Option B

**Solution:**

First term → 2

Second term →  $(2 * 3 - 3) = 3$

Third term →  $(3 * 3 - 3) = 6$

Fourth term →  $(6 * 3 - 3) = 15$

sixth term →  $(15 * 3 - 3) = 42$

In the following number series a wrong number is given. Find out the wrong number.

1, 3, 10, 21, 64, 129, 356, 777

- A. 129
- B. 21
- C. 10
- D. 356

**Answer:** Option D

**Solution:**

The given pattern is,

2<sup>nd</sup> term →  $1 * 2 + 1 = 3$

3<sup>rd</sup> term →  $3 * 3 + 1 = 10$

4<sup>th</sup> term →  $10 * 2 + 1 = 21$

5<sup>th</sup> term →  $21 * 3 + 1 = 64$

6<sup>th</sup> term →  $64 * 2 + 1 = 129$

7<sup>th</sup> term →  $129 * 3 + 1 = 388$

So, 7<sup>th</sup> term 356 is wrong and must be replaced by 388.

9, 27, 31, 155, 161, 1127, ?

- A. 316
- B. 1135
- C. 1288
- D. 2254

**Answer:** Option B

**Solution:**

Given pattern is,

$$2^{\text{nd}} \text{ term} \rightarrow 9 * 3 = 27$$

$$3^{\text{rd}} \text{ term} \rightarrow 27 + 4 = 31$$

$$4^{\text{th}} \text{ term} \rightarrow 31 * 5 = 155$$

$$5^{\text{th}} \text{ term} \rightarrow 155 + 6 = 161.$$

$$6^{\text{th}} \text{ term} \rightarrow 161 * 7 = 1127$$

$$\text{Missing term} \rightarrow 1127 + 8 = 1135.$$

2, 7, 27, 107, 427, ?

A. 1262

B. 1707

C. 4027

D. 4207

**Answer:** Option B

**Solution:**

The pattern is,

$$2^{\text{nd}} \text{ term} \rightarrow 2 + (5 * 1^2) = 7$$

$$3^{\text{rd}} \text{ term} \rightarrow 7 + (5 * 2^2) = 27$$

$$4^{\text{th}} \text{ term} \rightarrow 27 + (5 * 4^2) = 107$$

$$5^{\text{th}} \text{ term} \rightarrow 107 + (5 * 8^2) = 427$$

$$\text{Missing term} \rightarrow 427 + (5 * 16^2) = 1707$$

Sunday, Monday, Wednesday, Saturday,  
Wednesday, Monday, ....

A. Sunday, Sunday

B. Sunday, Monday

C. Sunday, Wednesday

D. Sunday, Saturday

**Answer:** Option A

**Solution:**

Sunday to Monday = no gap

Monday to Wednesday = One day gap.

Wednesday to Saturday = Two days gap.

Saturday to Wednesday = Three days gap.

Wednesday to Monday = Four days gap.

In the next term there must be five days and six days gap.

So, Next term would be Sunday, Sunday.

7, 11, 19, 35, 67, ?

A.  99

B.  131

C.  137

D.  124

**Answer:** Option B

**Solution:**

**Logic:**

**Last Term \*2 - 3 = Next Term.**

First Term = 7.

Second Term =  $7 * 2 - 3 = 11$ .

Third Term =  $11 * 2 - 3 = 19$ .

Fourth Term =  $19 * 2 - 3 = 35$ .

Fifth Term =  $35 * 2 - 3 = 67$ .

Sixth Term =  $67 * 2 - 3 = 131$ .

8, 22, 64, 190, 568, ?

A.  1702

B.  7767

C.  6992

D.  6913

**Answer:** Option A

**Solution:**

Logic:

**Previous Term \*3 - 2 = Next term.**

First Term = 8.

Second term =  $8 * 3 - 2 = 24 - 2 = 22$ .

Third term =  $22 * 3 - 2 = 64$ .

Fourth term =  $64 * 3 - 2 = 190$ .

Fifth Term =  $190 * 3 - 2 = 568$ .

Sixth Term =  $568 * 3 - 2 = 1704 - 2 = \underline{\underline{1702}}$ .

5760, 2880, 960, 240, 48, ?

- A.  6
- B.  8
- C.  12
- D.  16

**Answer: Option B**

**Solution:**

First Term = 5760.

Second term =  $5760 / 2 = 2880$ .

Third Term =  $2880 / 3 = 960$ .

Fourth term =  $960 / 4 = 240$ .

Fifth term =  $240 / 5 = 48$ .

So, Required term =  $48 / 6 = 8$ .

2, 1,  $(1/2)$ ,  $(1/4)$ , ... What number should come next?

- A.   $(1/3)$
- B.   $(1/8)$
- C.   $(2/8)$
- D.   $(1/16)$

**Answer: Option B**

**Solution:**

This is a simple division series; each number is one-half of the previous number.

In other terms to say, the number is divided by 2 successively to get the next result.

$$\begin{aligned}4/2 &= 2 \\2/2 &= 1 \\1/2 &= 1/2 \\(1/2)/2 &= 1/4 \\(1/4)/2 &= 1/8 \text{ and so on.}\end{aligned}$$

7, 10, 8, 11, 9, 12, ... What number should come next?

- A.  7
- B.  10
- C.  12
- D.  13

**Answer: Option B**

**Solution:**

This is a simple alternating addition and subtraction series. In the first pattern, 3 is added; in the second, 2 is subtracted.

- A.  3
- B.  3.3
- C.  3.5
- D.  3.6

**Answer: Option D**

**Solution:**

In this simple subtraction series, each number decreases by 0.4.

8, 6, 9, 23, 87, ... What number should come next?

- A.  128

B.  226

C.  324

D.  429

**Answer: Option D**

**Solution:**

$$8 \times 1 - 2 = 6$$

$$6 \times 2 - 3 = 9$$

$$9 \times 3 - 4 = 23$$

$$23 \times 4 - 5 = 87$$

$$87 \times 5 - 6 = 429 \dots$$

**28, 25, 5, 21, 18, 5, 14, ... choose which pair of numbers comes next?**

A.  11, 5

B.  10, 7

C.  11, 8

D.  5, 10

E.  10, 5

**Answer: Option A**

**Solution:**

This is an alternating subtraction series with the interpolation of a random number, 5, as every third number. In the subtraction series, 3 is subtracted, then 4, then 3, and so on.

**8, 11, 21, 15, 18, 21, 22, ... choose which pair of numbers comes next?**

A.  25, 18

B.  25, 21

C.  25, 29

D.  24, 21

E.  22, 26

**Answer: Option B**

**Solution:**

This is an alternating addition series, with a random number, 21, interpolated as every third number. The addition series alternates between adding 3 and adding 4. The number 21 appears after each number arrived at by adding 3.

**9, 16, 23, 30, 37, 44, 51, ... choose which pair of numbers comes next?**

A.  59, 66

B.  56, 62

C.  58, 66

D.  58, 65

E.  54, 61

**Answer: Option D**

**Solution:**

Here is a simple addition series, which begins with 9 and adds 7.

**5.2, 4.8, 4.4, 4, ... What number should come next?**

A.  3

B.  3.3

C.  3.5

D.  3.6

**Answer: Option D**

**Solution:**

In this simple subtraction series, each number decreases by 0.4

**8, 6, 9, 23, 87 , ... What number should come next?**

- A.  128
- B.  226
- C.  324
- D.  429

**Answer: Option D**

**Solution:**

$$8 \times 1 - 2 = 6$$

$$6 \times 2 - 3 = 9$$

$$9 \times 3 - 4 = 23$$

$$23 \times 4 - 5 = 87$$

$$87 \times 5 - 6 = 429 \dots$$

**28, 25, 5, 21, 18, 5, 14, ... choose which pair of numbers comes next?**

- A.  11, 5
- B.  10, 7
- C.  11, 8
- D.  5, 10
- E.  10, 5

**Answer: Option A**

**Solution:**

This is an alternating subtraction series with the interpolation of a random number, 5, as every third number. In the subtraction series, 3 is subtracted, then 4, then 3, and so on.

**8, 11, 21, 15, 18, 21, 22, ... choose which pair of numbers comes next?**

- A.  25, 18
- B.  25, 21
- C.  25, 29
- D.  24, 21
- E.  22, 26

**Answer: Option B**

**Solution:**

This is an alternating addition series, with a random number, 21, interpolated as every third number. The addition series alternates between adding 3 and adding 4. The number 21 appears after each number arrived at by adding 3.

**9, 16, 23, 30, 37, 44, 51, ... choose which pair of numbers comes next?**

- A.  59, 66
- B.  56, 62
- C.  58, 66
- D.  58, 65
- E.  54, 61

**Answer: Option D**

**Solution:**

Here is a simple addition series, which begins with 9 and adds 7.

**36, 31, 29, 24, 22, 17, 15, ... choose which pair of numbers comes next?**

- A.  13, 11

- A. 10, 5
- C. 13, 8
- D. 12, 7
- E. 10, 8

**Answer:** Option E

**Solution:**

This is an alternating subtraction series, which subtracts 5, then 2, then 5, and so on.

**3, 5, 35, 10, 12, 35, 17, ... choose which pair of numbers comes next?**

- A. 22, 35
- B. 35, 19
- C. 19, 35
- D. 19, 24
- E. 22, 24

**Answer:** Option C

**Solution:**

This is an alternating addition series, with a random number, 35, interpolated as every third number. The pattern of addition is to add 2, add 5, add 2, and so on. The number 35 comes after each "add 2" step/

**14, 14, 26, 26, 38, 38, 50, ... choose which pair of numbers comes next?**

- A. 60, 72
- B. 50, 62
- C. 50, 72

- D. 62, 62
- E. 62, 80

**Answer:** Option B

**Solution:**

In this simple addition with repetition series, each number in the series repeats itself, and then increases by 12 to arrive at the next number.

**44, 41, 38, 35, 32, 29, 26, ... choose which pair of numbers comes next?**

- A. 24, 21
- B. 22, 19
- C. 23, 19
- D. 29, 32
- E. 23, 20

**Answer:** Option E

**Solution:**

This is a simple subtraction series, in which 3 is subtracted from each number to arrive at the next.

**70, 71, 76, \_\_, 81, 86, 70, 91. What number should fill the blank?**

- A. 70
- B. 71
- C. 80
- D. 96

**Answer:** Option A

**Solution:**

In this series, 5 is added to the previous number; the number 70 is inserted as every third number.

**8, 43, 11, 41, \_\_, 39, 17. What number should fill in the blank?**

- A.  8
- B.  14
- C.  43
- D.  44

**Answer: Option B**

**Solution:**

This is a simple alternating addition and subtraction series. The first series begins with 8 and adds 3; the second begins with 43 and subtracts 2.

**VI, 10, V, 11, \_\_, 12, III. What number should fill the blank?**

- A.  II
- B.  IV
- C.  IX
- D.  14

**Answer: Option B**

**Solution:**

This is an alternating addition and subtraction series. Roman numbers alternate with Arabic numbers. In the Roman numeral pattern, each number decreases by 1. In the Arabic numeral pattern, each number increases by 1.

**(1/9), (1/3), 1, \_\_, 9. What number should fill the blank?**

- A.  (2/3)
- B.  3

- C.  6

- D.  27

**Answer: Option B**

**Solution:**

This is a multiplication series; each number is 3 times the previous number.

**83, 73, 93, 63, \_\_, 93, 43. What number should fill the blank?**

- A.  33
- B.  53
- C.  73
- D.  93

**Answer: Option B**

**Solution:**

This is a simple subtraction series in which a random number, 93, is interpolated as every third number. In the subtraction series, 10 is subtracted from each number to arrive at the next.

**Find the missing term: 11, 13, 17, 19, 23, 25, ?**

- A.  26
- B.  27
- C.  29
- D.  37

**Answer: Option C**

**Solution:**

The pattern is +2,+4,+2,+4,  
So, missing term =  $25 + 4 = 29$

**Find the missing term: 6, 13, 25, 51, 101. ?**

- A. 201
- B. 202
- C. 203
- D. 205

**Answer:** Option C

**Solution:**

The pattern is  $x^2+1, x^2-1, x^2+1, x^2-1, \dots$   
So, missing term =  $101x^2+1=203$

The pattern is  $x^3+4, x^4+4, x^5+4, \dots$   
So, missing term =  $584x^6+4=3508$

**Find the missing term: 2, 5, 9, ?, 20, 27**

- A. 14
- B. 16
- C. 18
- D. 24

**Answer:** Option A

**Solution:**

The pattern is  $+3, +4, +5, +6, \dots$   
So, missing term =  $9+5=14$

**Find the missing term: 28, 33, 31, 36, ?, 39**

- A. 32
- B. 34
- C. 38
- D. 40

**Answer:** Option B

**Solution:**

The pattern is  $+5, -2, +5, -2, \dots$   
So, missing term =  $36 - 2 = 34$

**Find the missing term: 5760, 960, ?, 48, 48, 16, 8**

- A. 120
- B. 160
- C. 192
- D. 240

**Answer:** Option A  
**Solution:**

The pattern is  $+6, +9, +12, +15, \dots$   
So, missing term =  $21+12=33$

**Find the missing term: 8, 28, 116, 584, ?**

- A. 1752
- B. 3502
- C. 3504
- D. 3508

**Answer:** Option D  
**Solution:**

**Answer:** Option C

**Solution:**

The pattern is  $\div 6, \div 5, \div 4, \div 3, \div 2$

So, missing term =  $960 \div 5 = 192$

The pattern is  $+ 1, \times 3, + 1, \times 3, + 1, \times 3, + 1, \dots$

So, missing term =  $67 \times 3 = 201$

**Find the missing term: 1, 5, 13, 25, 41, ?**

A.  51

B.  57

C.  61

D.  63

**Find the missing term: 125, 80, 45, 20, ?**

A.  58

B.  8

C.  10

D.  12

**Answer:** Option A

**Solution:**

The pattern is  $- 45, - 35, - 25, \dots$

So, missing term =  $20 - 15 = 5$

**Answer:** Option C

**Solution:**

The pattern is  $+ 4, + 8, + 12, + 16, \dots$

So, missing term =  $41 + 20 = 61$

**Find the missing term: 1, 2, 6, 7, 21, 22, 66, 67, ?**

A.  70

B.  134

C.  201

D.  301

**Answer:** Option C

**Solution:**

**Find the missing number.**

## Chapter:- Two Missing Number Finding

**Find the missing number.**

4	5	3	2	0
7	3	4	4	21
6	4	4	5	22
9	6	5	5	?

56		78
12	?	30
44	14	48

- A.  34
- B.  42
- C.  44
- D.  45
- E.  15

**Answer: Option A**

**Solution:**

**Logic:**

Column-Wise

(First Column Element  $\times$  4th Column element) - (2nd column element + 3rd Column element) = Last Column Element

$$(4 \times 2) - (5+3) = 0$$

$$(7 \times 4) - (3+4) = 21$$

$$(6 \times 5) - (4+4) = 22$$

$$(9 \times 5) - (6+5) = 34.$$

A.  14

B.  44

C.  62

D.  51

E.  15

**Answer: Option D**

**Solution:**

**Logic:**

First Row Element - Third Row Element = Second Row Element.

$$56 - 44 = 12$$

$$65 - 14 = 51$$

$$78 - 48 = 30.$$

Hence, in the missing number should be 51.

Find the missing number.

4	8	20
9	3	15
6	6	?

Find the missing number.

13	54	?
7	45	32
27	144	68

- A.  22  
B.  18  
C.  16  
D.  26  
E.  20

**Answer:** Option B

**Solution:**

$$20 = 8 \times 2 + 4$$

$$15 = 3 \times 2 + 9$$

Hence,

The number on the blank space,

$$6 \times 2 + 6 = 18.$$

- A.  42  
B.  4  
C.  6  
D.  36

**Answer:** Option B

**Solution:**

In the first column,

$$27 - 7 \times 2 = 13$$

In the second column,

$$144 - 45 \times 2 = 54$$

So,

in the third column,

$$68 - 32 \times 2 = 4$$

4.

**Find the missing number.**

6	9	15
8	12	20
4	6	?

**Third Method:**

In the First row,

$$6 \times (3/2) = 9.$$

$$6 \times (5/2) = 15.$$

In the second row,

$$8 \times (3/2) = 12.$$

$$8 \times (5/2) = 20.$$

hence,

In the third row,

missing number,

$$= 4 \times (5/2) = 10.$$

**Find the missing number.**

72	24	6
96	16	12
108	?	18

- A.  18

- B.  20

- C.  16

- D.  12

**Answer: Option D**

**Solution:**

**Logic (Row-wise):**

(First Element / Second element) \* 2 = Third Element.

So,

$$(108/x) * 2 = 18$$

$$x = 12.$$

Missing Number = 12

- A.  5  
B.  10  
C.  21  
D.  15

**Answer: Option B**

**Solution:**

**First Method Row-wise Logic:**

First element + second element = Third Element.

$$6 + 9 = 15$$

$$8 + 12 = 20$$

$$4 + 6 = 10$$

So, required number is 10.

**Second Method**

Logic:

Second Row element - first row element = Result \* 2 =

Third Row Element.

Column 1:

$$8 - 6 = 2$$

$$2 * 2 = 4$$

Column 2:

$$12 - 9 = 3$$

$$3 * 2 = 6$$

Column 3:

$$20 - 15 = 5$$

$$5 * 2 = 10.$$

Required Number is 10.

**Find the missing number.**

?	13	49
9	17	69
13	11	59

**Find the missing number?**

12	47	21
10	52	4
64	?	24

- A.  5  
B.  21  
C.  9  
D.  10

**Answer: Option A**

**Solution:**

$$\text{Second Row, } 2*9 + 3*17 = 69.$$

$$\text{Third Row, } 2*13 + 3*11 = 59.$$

Let missing number be  $x$ ,

$$2x + 3*13 = 49.$$

or,  $x = 5$ .

- A.  40  
B.  83  
C.  62  
D.  16

**Answer: Option B**

**Solution:**

$$\text{First row : } 12 / 4 = 21 / 7.$$

$$\text{Second row : } 10 / 5 = 4 / 2.$$

$$\text{Third row : } 64 / 8 = 24 / 3.$$

So, required missing character = (83).

**Find the missing character?**

188	300	263
893	?	915

- A.  19  
 B.  17  
 C.  16  
 D.  15

**Answer: Option C**

**Solution:**

$$\text{First column} \Rightarrow 11^2 - 1^2 = 120.$$

$$\text{Second Column} \Rightarrow 7^2 - 2^2 = 45.$$

$$\text{Third column} \Rightarrow 5^2 - 3^2 = 16$$

- A.  88  
 B.  96  
 C.  238  
 D.  500

**Answer: Option A**

**Solution:**

$$\text{First row} \rightarrow (263 - 188) * 4 = 300.$$

$$\text{Thus, Second Row} \rightarrow (915 - 893) * 4 = 22 * 4 = 88$$

**Find the missing character?**

1	2	3
11	7	5
120	45	?

- A.  35  
 B.  36  
 C.  45  
 D.  47

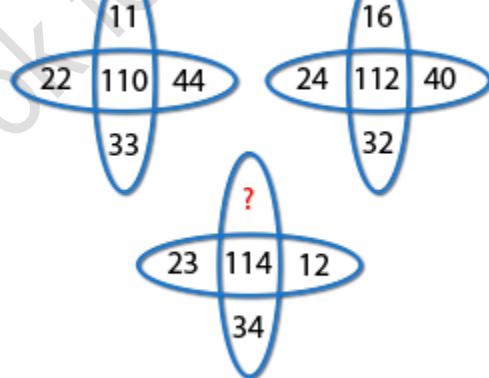
**Answer: Option C**

**Solution:**

We have

$$11 + 22 + 33 + 44 = 110$$

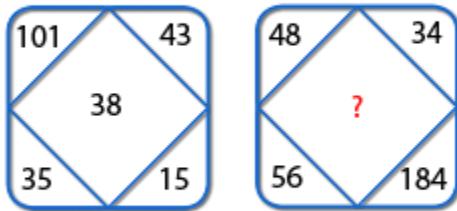
$$16 + 24 + 32 + 40 = 112$$



Missing number =  $114 - (23 + 34 + 12) = 45$

---

### Find the Missing Character



- A. 127
- B. 142
- C. 158
- D. 188

**Answer: Option B**

**Solution:**

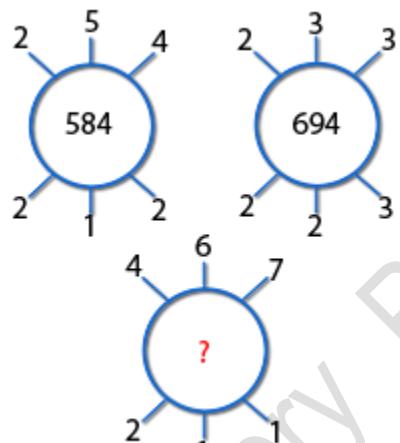
We have

$$(101 + 15) - (35 + 43) = 38 \text{ (Center Element)}$$

$$\begin{aligned} \text{Missing Character} &= (48 + 184) - (56 + 34) = (232 - 90) \\ &= 142. \end{aligned}$$

---

### Find the Missing Character



- A. 678
- B. 769
- C. 824
- D. 937

**Answer: Option A**

**Solution:**

In the first figure :

$$5 * 1 = 5$$

$$4 * 2 = 8$$

$$2 * 2 = 4$$

Second Figure :

$$3 * 2 = 6$$

$$3 * 3 = 9$$

$$2 * 2 = 4$$

Third Figure :  $6 * 1 = 6$

$$7 * 1 = 7$$

$$4 * 2 = 8$$

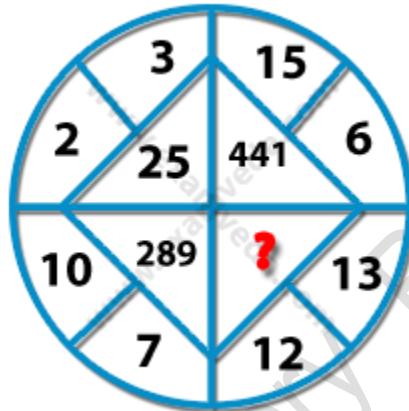
So Missing Character is 678

---

**Find the missing character?**

10	11	15
12	12	8
4	12	10
10	5	13
18	20	?

**Find the missing character?**



- A. 20
- B. 21
- C. 22
- D. 23

**Answer: Option D**

**Solution:**

Column One:

$$(10 + 12 + 4 + 10) / 2 = 18$$

Column Two:

$$(11 + 12 + 5 + 20) / 2 = 20$$

Column Three:

$$(15 + 8 + 10 + 13) / 2 = X (\text{Let})$$

$$X = 23.$$

- A. 25
- B. 125
- C. 156
- D. 625

**Answer: Option D**

**Solution:**

$$(10 + 7)^2 = 17^2 = 289$$

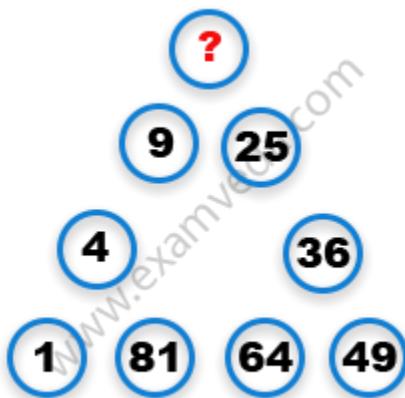
$$(2 + 3)^2 = 5^2 = 25$$

$$(15 + 6)^2 = 21^2 = 441$$

$$(13 + 12)^2 = 25^2 = \mathbf{625}$$

Â

**Find the missing number?**



- A.  35  
B.  39  
C.  30  
D.  43

**Answer:** Option B

**Solution:**

**Left to Right:**

$$\begin{aligned} & 3 \\ & 3 * 2 - 1 = 5 \\ & 5 * 2 - 2 = 8 \\ & 8 * 2 - 3 = 13 \\ & 13 * 2 - 4 = 22 \\ & \text{Missing number,} \\ & 22 * 2 - 5 = 39. \end{aligned}$$

- A.  16  
B.  14  
C.  17  
D.  23

**Answer:** Option A

**Solution:**

Starting bottom left and moving clockwise around the triangle, numbers follow the sequence of Square Numbers 1 to 9.

Missing number = Square of 4 =  $4 * 4 = 16$ .

**Find the missing number?**

3	5	8	13	22	?
---	---	---	----	----	---

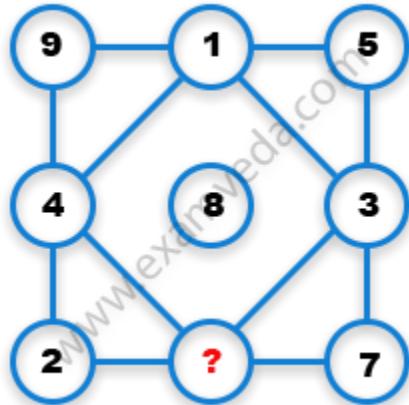
- A.  1  
B.  5  
C.  4  
D.  7

**Answer:** Option C

**Solution:**

Working in columns, the sum of the numbers in each column is always 14. So,  
 $2 + 4 + 4 + x = 14$ .  
 $x = 14 - 10 = 4$ .

---

**Find the missing number?**

- A. 5  
 B. 3  
 C. 1  
 D. 6
- 

**Answer: Option D****Solution:**

Sum of the row = sum of the column = 15

**Row-Wise:**

$$9 + 1 + 5 = 15$$

$$4 + 8 + 3 = 15$$

$$2 + x + 7 = 15$$

$$\text{Or, } x = 15 - 9 = 6.$$


---

**Column Wise:**

$$9 + 4 + 2 = 15$$

$$5 + 3 + 7 = 15$$

$$8 + 1 + x = 15$$

$$\text{or } x = 6.$$


---

26	28	31	35	?
----	----	----	----	---

- A. 39  
 B. 40  
 C. 41  
 D. 42
- 

**Answer: Option B****Solution:**

$$26 + 2 = 28$$

$$28 + 3 = 31$$

$$31 + 4 = 35$$

$$35 + 5 = 40$$


---

**Find the missing number?**

7	3	4	6	1	9
1	1	0	9	0	7
5	2	4	2	3	2
9	9	5	0	0	1
6	7	8	2	9	7
1	5	4	8	?	?

- A. 6 , 1  
 B. 8 , 1  
 C. 1 , 6  
 D. 1 , 8

**Answer:** Option B

**Solution:**

Reading each row as 3 separate 2-digit numbers, the central number equals the average of the left and right hand numbers. So,

$$(15 + x)/2 = 48$$

$$15 + x = 96$$

$$x = 81.$$

Missing Numbers = 8 ,1.

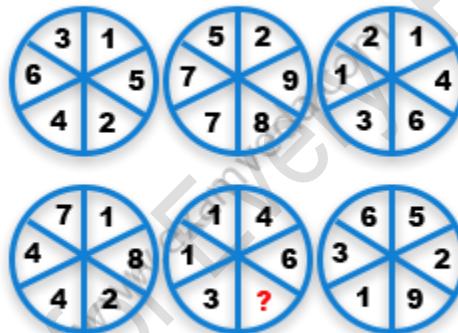
**Solution:**

Reading each pair of numbers as a 2 digit number, they follow the sequence of square numbers from 6 to 9.  
 Thus,

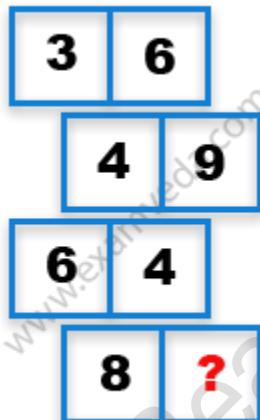
$$\text{Last row} = 9 * 9 = 81.$$

Missing number = 1.

**Find the missing number?**



- A. 4  
 B. 7  
 C. 3  
 D. 9



- A. 7  
 B. 2  
 C. 3  
 D. 1

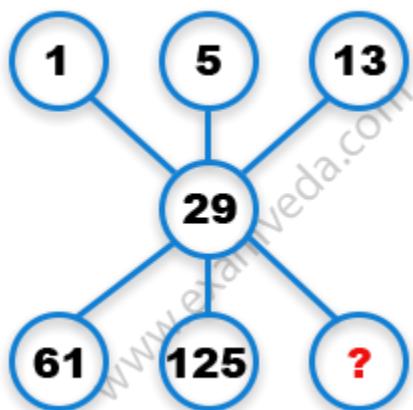
**Answer:** Option D

**Answer:** Option B

**Solution:**

Taking the top row of circles, numbers in the central circle equal the sum of the numbers in corresponding segments of the left and right hand circles. In the bottom row, numbers in the central circle equal the difference between numbers in corresponding segments of the left and right hand circles

**Find the missing number?**



- A.  54  
B.  52  
C.  51  
D.  47

**Answer:** Option C

**Solution:**

Moving to the right, double each number and subtract 3 to give the next number. So,

$$\text{Missing Number} = 27 * 2 - 3 = 54 - 3 = 51.$$

- A.  253  
B.  250  
C.  257  
D.  197

**Answer:** Option A

**Solution:**

Starting at the top left, and moving through the diagram in a Z shape, double each number and add 3 to give the next number along. So,

Required number =  $2 * 125 + 3 = 253$ . **Find the missing number?**

6	9	15	27	?
---	---	----	----	---

## Chapter :-3      Odd Man Out

**Find the odd number/letters from the given alternatives.**

- A. Swimming
- B. Sailing
- C. Diving
- D. Driving

**Answer: Option D**

**Solution:**

**Swimming ,Sailing and,Diving** are related with water.  
So, Driving is odd one.

**Find the odd number / letters / word from the given alternative.**

- A. Discernment
- B. Perception
- C. Penetration
- D. Insinuation

**Answer: Option D**

**Solution:**

**Discernment ,Perception and Penetration** are in meaning.

**Find the odd number / letters / word from the given alternative.**

- A. 5720
- B. 6710
- C. 2640

D. 4270

**Answer: Option D**

**Solution:**

$5720 \rightarrow 5+2+0 = 7$  (Second digit from Right)  
 $6710 \rightarrow 6+1+0 = 7$  (Second digit from Right)  
 $2640 \rightarrow 2+4+0 = 6$  (Second digit from Right)  
 $4270 \rightarrow 4+7+0 = 11$  ( Not the second digit from Right)

**Find the odd number/letters from the given alternatives.**

- A. 626
- B. 841
- C. 962
- D. 1090

**Answer: Option B**

**Solution:**

$626-1 = 625 = 25^2$ .  
 $962-1 = 961 = 31^2$ .  
 $1090-1 = 1089 = 33^2$ .  
But,  
 $841-1 = 840$  (not a perfect square).

Otherwise, 841 is a perfect square of 29, other are not a perfect square.

**Find the odd number/letters from the given alternatives.**

- A. PQXZ
- B. CQBN
- C. ABDF
- D. PRMN

**Answer: Option C**

**Solution:**

PQXZ → No vowel.

CQBN → No vowel.

PRMN → No vowel.

ABDF → One vowel

**Find the odd number / letters / word from the given alternative.**

A. Tortoise

B. Duck

C. Snake

D. Whale

E. Crow

**Answer: Option D**

**Solution:**

All except Whale lay egg

**Find the odd number / letters / word from the given alternative.**

A. Violet

B. Blue

C. Green

D. White

E. Yellow

**Answer: Option D**

**Solution:**

All except White are colours of the rainbow.

**Find the odd number / letters / word from the given alternative.**

A. Tea

B. Cinchona

C. Rubber

D. Cardamom

E. Chalk

**Answer: Option E**

**Solution:**

All except Chalk are obtained from crops.

**Find the odd number / letters / word from the given alternative.**

A. Bajra

B. Mustard

C. Rice

D. Wheat

E. Barley

**Answer: Option B**

**Solution:**

All except Mustard are foodgrains, while mustard is an oilseed

**Find the odd number / letters / word from the given alternative.**

A. Cheetah

B. Lion

C. Bear

D. Tiger

- E. Leopard

**Answer: Option C**

**Solution:**

All except Bear belong to the cat family

**Find the odd number / letters / word from the given alternative.**

- A. Chicken

- B. Snake

- C. Swan

- D. Crocodile

- E. Frog

**Answer: Option A**

**Solution:**

All except Chicken can live in water.

**Find the odd number / letters / word from the given alternative.**

- A. Zinc

- B. Iron

- C. Aluminium

- D. Copper

- E. Mercury

**Answer: Option E**

**Solution:**

Mercury is the only liquid metal in the group

**Find the odd number / letters / word from the given alternative.**

- A. King

- B. Queen

- C. Bishop

- D. Minister

- E. Knight

**Answer: Option D**

**Solution:**

All except Minister are chessmen.

**Find the odd number / letters / word from the given alternative.+**

- A. Trunk

- B. Tree

- C. Fruit

- D. Leaf

- E. Flower

**Answer: Option B**

**Solution:**

All other are parts of a tree.

**Find the odd number / letters / word from the given alternative.**

- A. Dagger

- B. Hammer

- C. Knife

D. Sword

E. Blade

**Answer: Option B**

**Solution:**

All except Hammer are sharp-edged and have

**Find the odd number / letters / word from the given alternative.**

A. Guava

B. Litchi

C. Papaya

D. Watermelon

E. Jackfruit

**Answer: Option D**

**Solution:**

All except Watermelon grow on trees, while watermelon grows on creepers.

**Find the odd number / letters / word from the given alternative.**

A. Sparrow

B. Swan

C. Parrot

D. Koel

E. Vulture

**Answer: Option B**

**Solution:**

Swan is the only water bird in the group

**Find the odd number / letters / word from the given alternative.**

A. Sun

B. Moon

C. Star

D. Planets

E. Universe

**Answer: Option E**

**Solution:**

All except Universe from a part of the universe.

**Find the odd number / letters / word from the given alternative.**

A. Tomato

B. Cucumber

C. Brinjal

D. Carrot

E. Gourd

**Answer: Option D**

**Solution:**

Carrot is the only vegetable which grows underground

**Find the odd number / letters / word from the given alternative.**

A. Iron

B. Potassium

- C. Sodium
- D. Chlorine
- E. Iodine

**Answer: Option A**

**Solution:**

All except Iron are very volatile.

56.

**Find the odd number / letters / word from the given alternative.**

- A. Wheat
- B. Barley
- C. Rice
- D. Pea
- E. Mustard

**Answer: Option C**

**Solution:**

All except Rice are rabi crops, while rice is a kharif crop.

**Find the odd number / letters / word from the given alternative.**

- A. Housefly
- B. Spider
- C. Mosquito
- D. Butterfly

- E. Cockroach

**Answer: Option B**

**Solution:**

All except Spider are flying insects

**Find the odd number / letters / word from the given alternative.**

- A. Tiger
- B. Dolphin
- C. Zebra
- D. Lion
- E. Crocodile

**Answer: Option E**

**Solution:**

All except Crocodile are mammals, while crocodile is a reptile.

**Find the odd number / letters / word from the given alternative.**

- A. Mars
- B. Sun
- C. Saturn
- D. Mercury
- E. Pluto

**Answer: Option B**

**Solution:**

All except Sun are planets, while Sun is a star

**Find the odd number / letters / word from the given alternative.**

- A. Konarak
- B. Madurai
- C. Ellora
- D. Khajuraho
- E. Dilwara

**Answer: Option C**

**Solution:**

All except Ellora are famous for temples, while Ellora is famous for caves. **Find the odd number / letters / word from the given alternative.**

- A. Tortoise
- B. Frog
- C. Rat
- D. Mongoose
- E. Snake

**Answer: Option E**

**Solution:**

Snake is the only poisonous animal in the group.

**Find the odd number / letters / word from the given alternative.**

- A. Rice
- B. Maize
- C. Jowar

- D. Bajra
- E. Wheat

**Answer: Option E**

**Solution:**

All except Wheat are kharif or summer crops, while wheat is a rabi crop

**Find the odd number / letters / word from the given alternative.**

- A. Dog
- B. Lion
- C. Jackle
- D. Tiger
- E. Cheetah

**Answer: Option A**

**Solution:**

All except Dog are wild animals.

**Find the odd number / letters / word from the given alternative.**

- A. Spade
- B. Knife
- C. Axe
- D. Hammer
- E. Blacksmith

**Answer: Option E**

**Solution:**

All except Blacksmith are tools **Find the odd number / letters / word from the given alternative.**

- A. Bullock
- B. Giraffe
- C. Ass
- D. Camel
- E. Donkey

**Answer: Option B**

**Solution:**

All except Giraffe are animals used as beasts of burden.

**Find the odd number / letters / word from the given alternative.**

- A. Up
- B. Down
- C. Below
- D. Above
- E. Small

**Answer: Option E**

**Solution:**

All except Small are prepositions, while Small is used as an adjective

**Find the odd number / letters / word from the given alternative.**

- A. Big

- B. Small
- C. Trivial
- D. Tiny
- E. Huge

**Answer: Option C**

**Solution:**

All except Trivial describe the physical size of objects.

**Find the odd number / letters / word from the given alternative.**

- A. Plassey
- B. Haldighati
- C. Panipat
- D. Sarnath
- E. Kurukshetra

**Answer: Option D**

**Solution:**

All except sarnath are famous battlefields

**Find the odd number / letters / word from the given alternative.**

- A. Corn
- B. Wheat
- C. Cotton
- D. Jowar

E. Milet

A. Rectangle

B. Square

C. Cube

D. Triangle

**Answer: Option C**

**Solution:**

All except Cotton are food crops, while cotton is a fibre crop.

**Find the odd number / letters / word from the given alternative.**

A. See

B. Hear

C. Smell

D. Taste

E. Think

**Answer: Option C**

**Solution:**

All except Cube are two-dimensional plane figures.

**Find the odd number / letters / word from the given alternative.**

A. Polyester

B. Cotton

C. Terylene

D. Nylon

**Answer: Option B**

**Solution:**

All except Cotton are synthetic fibres while cotton is a natural fibre.

**Find the odd number / letters / word from the given alternative.**

A. Medium

B. Average

C. Mediocre

D. Terrible

**Answer: Option D**

**Solution:**

All except Terrible are synonyms.

A. Cement

B. Paste

C. Oil

D. Glue

**Answer: Option C**

**Solution:**

All except Oil are used to join something

**Find the odd number / letters / word from the given alternative.**

- A.  Veena
- B.  Sitar
- C.  Drum
- D.  Guita

**Answer: Option C**

**Solution:**

All except Drum are string instrument

**Find the odd number / letters / word from the given alternative.**

- A.  House
- B.  Apartment
- C.  Society
- D.  Building

**Answer: Option C**

**Solution:**

All except Society represent a single dwelling unit.

**Find the odd number / letters / word from the given alternative.**

- A.  Teach
- B.  Instruct
- C.  Educate
- D.  Explain

**Answer: Option B**

**Solution:**

All except Instruct denote learning process.

**Find the odd number / letters / word from the given alternative.**

- A.  Sketch
- B.  Paper
- C.  Poster
- D.  Diagram

**Answer: Option B**

**Solution:**

All others are drawn on paper

**Find the odd number / letters / word from the given alternative.**

- A.  Basket
- B.  Purse
- C.  Bag
- D.  Hat

**Answer: Option D**

**Solution:**

All except Hat are used to contain something.

**Find the odd number / letters / word from the given alternative.**

- A.  Milk
- B.  Soda water
- C.  Cold drink

D. Beer

**Answer: Option A**

**Solution:**

All except Milk are artificially prepared drinks.

**Find the odd number / letters / word from the given alternative:**

A. Probe

B. Exploration

C. Deliberation

D. Investigation

**Answer: Option C**

**Solution:**

All except Deliberation indicate research.

**Find the odd number / letters / word from the given alternative:**

A. Nimitz

B. Yamamoto

C. Nelson

D. Montgomery

**Answer: Option D**

**Solution:**

All except Montgomery were Admiral. Nimitz was U.S. Admiral, Yamamoto was Japanese Admiral and Nelson was British Admiral, while Montgomery was British Field Marshal.

**Find the odd number / letters / word from the given alternative:**

A. Manipur

B. Kohima

C. Sikkim

D. Mizoram

**Answer: Option B**

**Solution:**

All except Kohima are names of states, while Kohima is the capital city of Nagaland.

**Find the odd number / letters / word from the given alternative:**

A. Kite

B. Eagle

C. Hawk

D. Vulture

**Answer: Option B**

**Solution:**

All except Eagle are scavengers

**Find the odd number / letters / word from the given alternative:**

A. Mother

B. Grandfather

C. Father

D. Wife

**Answer: Option D**

**Solution:**

All except Wife are elderly people.

## Chapter:- 4 Direction and Sense

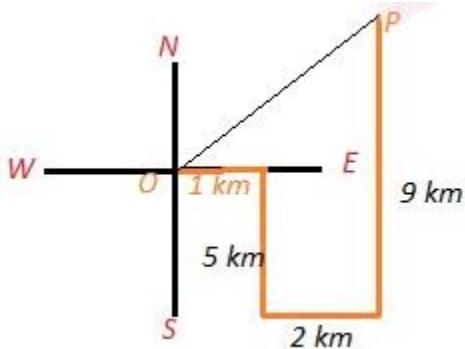
A man walks 1 km to East and then he turns to South and walks 5 km. Again he turns to East and walks 2 km. After this he turns to North and walks 9 km. Now, how far is he from his starting point?

- A. 3 km
- B. 4 km
- C. 5 km
- D. 7 km

**Answer:** Option C

**Solution:**

Man's Movement :



The last position of the man is P and OEP is a Right angled triangle in which

EP = 3 km and OE = 4 km

Thus,

$$OP = \sqrt{(3^2 + 4^2)}$$

$$OP = \sqrt{25}$$

$$OP = 5 \text{ km.}$$

I walk 30 metres in North-West direction from my house and then 30 metres in South-west direction. After this I walk 30 metres in South-East direction. Now, I turn to my house, in what direction am I going?

- A. North-East
- B. North-West

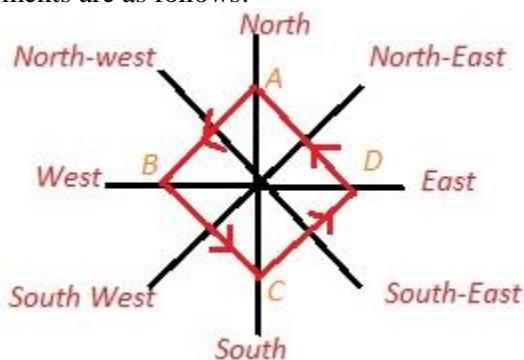
- C. South-East

- D. South-West

**Answer:** Option A

**Solution:**

Movements are as follows:



Now, I am going in North-East Direction.

A man faces towards north. Turning to his right, he walks 25 metres. He then turns to his left and walks 30 metres. Next, he moves 25 metres to his right. He then turns to his right again and walks 55 metres. Finally, he turns to the right and moves 40 metres. In which direction is he from his starting point ?

- A. South-West

- B. South

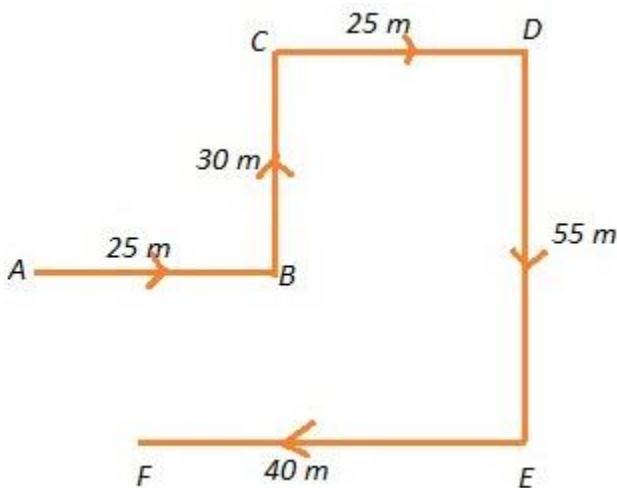
- C. North-west

- D. South-East

**Answer:** Option D

**Solution:**

Man's Movement :



Finally he is towards the South-East from his starting Point.

If South-East becomes North and South becomes North-East and all the rest directions are changed in the same manner, the what will be the direction for West ?

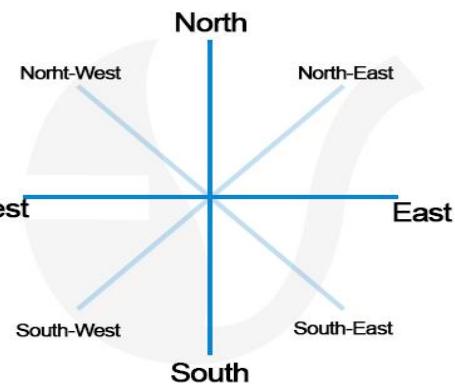
- A. North-East
- B. North-West
- C. South-East
- D. South-West

**Answer:** Option C

**Solution:**

If South-east becomes North and North East becomes West, therefore, the whole figure moves through  $135^{\circ}$ . Hence, West will be South-East.

See, Actual figure is rotating  $135^{\circ}$  anticlockwise. So, When West will be rotated by same degree anticlockwise. It will hold the place of south-East.



If Rahim moves 20 metres in East direction and then turns to his left and then moves 15 metres and then he turns to his right and moves 25 metres. After this he turns to his right and moves 15 metres. Now, how far is he from starting point ?

- A. 40 m
- B. 50 m
- C. 25 m
- D. 45 m

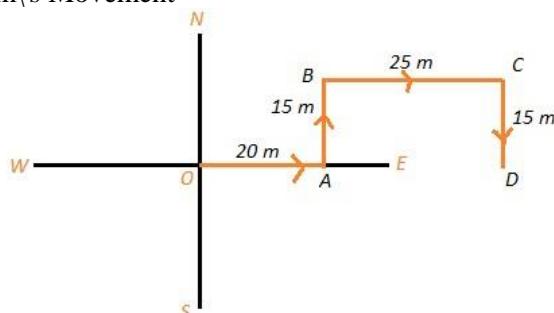
[Answer & Solution](#) [Discuss in Board](#) [Save for Later](#)

**Answer & Solution**

**Answer: Option D**

**Solution:**

Rahim's Movement



Therefore, the distance of Rahim from his starting point,  
 $= 20 + 25$   
 $= 45$  metres

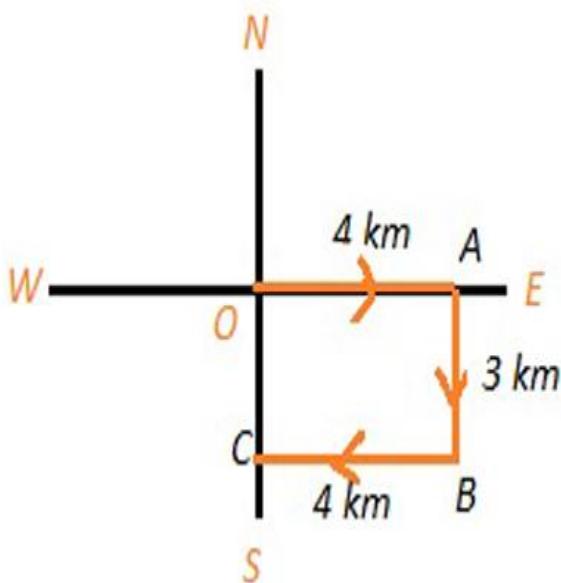
Mohan was facing east. he walked 4 km forward and then after turning to his right walked 3 km. Again he turned to his right and walked 4 km. After this he turned back. Which direction was he facing at that time?

- A. East
- B. West
- C. North
- D. South

**Answer:** Option A

**Solution:**

Mohan's Movement :



If Mohan turned back from final position he must be facing in the direction of Eas

A cyclist goes 30 km to North and then turning to East he goes 40 km. Again he turns to his right and goes 20 km. After this he turns to his right and goes 40 km. How far is from his starting point ?

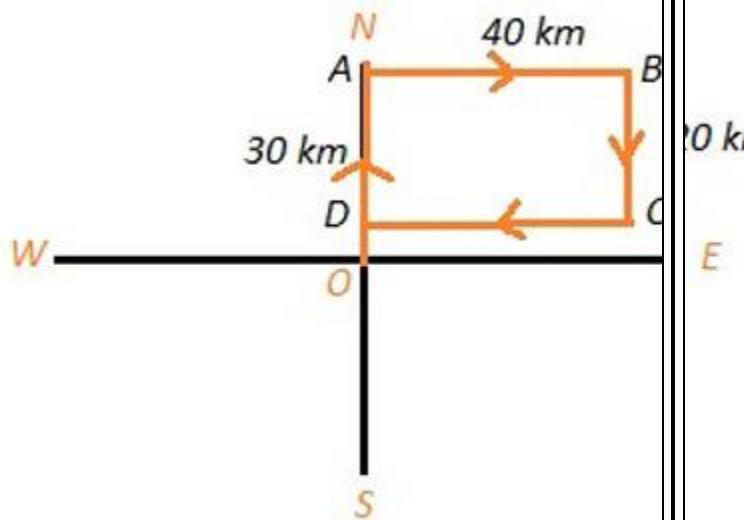
- B. 50
- C. 25
- D. 10

**Answer:** Option D

**Solution:**

Cyclist's Movement :

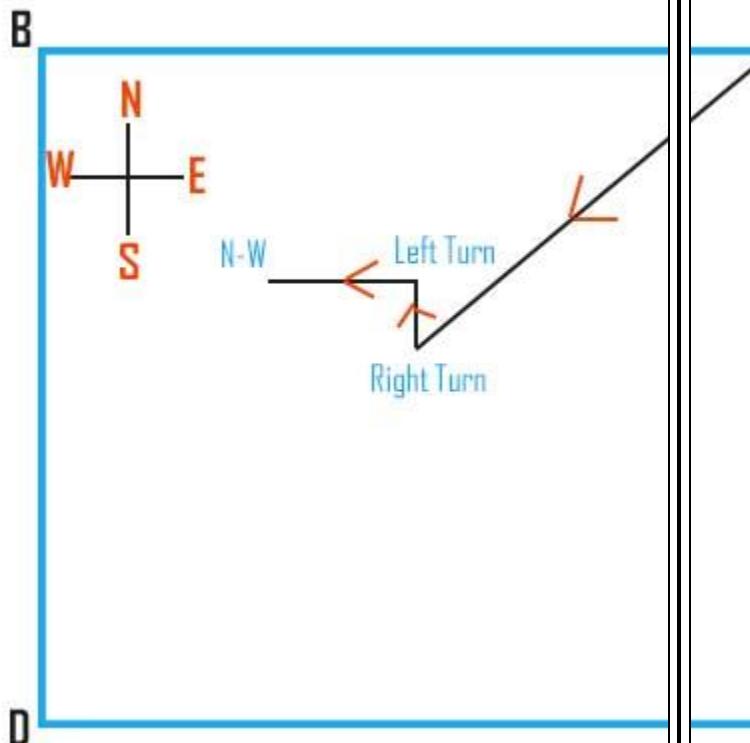
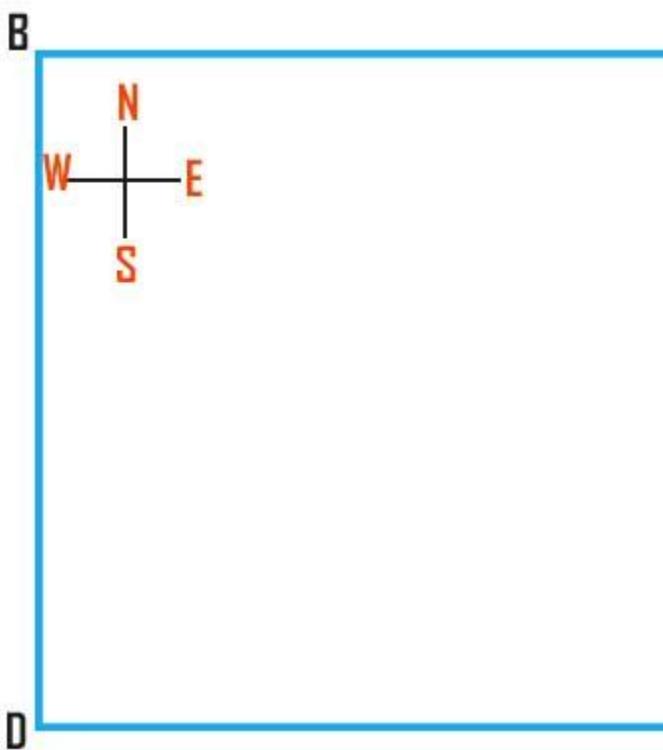
Distance of the Cyclist from his starting Point O to end point D =  $30-20 = 10$  km



A, B, C and D are standing on the four corners of a square field as shown in the figure below: A starts crossing the field diagonally. After walking half the distance, he turns right, walks some distance and turns left. Which direction is A facing

- A. 40

now?



Finally A is facing in the direction of North-West.

- A. North-East
- B. South-West
- C. South-East
- D. North-West

**Answer:** Option D

**Solution:**

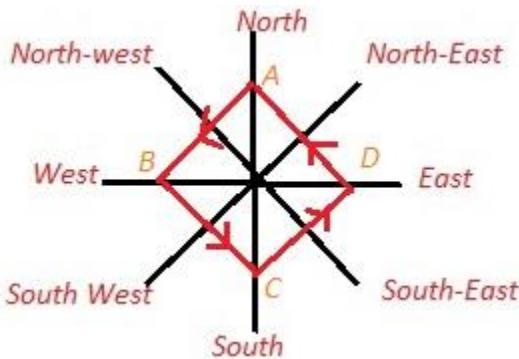
Movement of A :

A direction pole was situated on the crossing. Due to an accident the pole turned in such a manner that the pointer which was showing East, started showing South. One traveler went to wrong direction thinking to be West. In what direction actually he was traveling?

- A. East
- B. South-West
- C. North
- D. South

**Answer:** Option C

**Solution:**



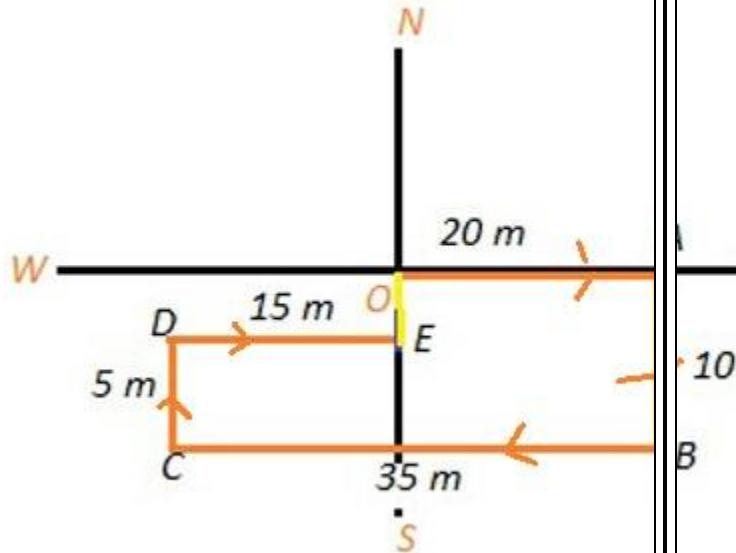
As East becomes South, therefore, the pole has turned through  $90^\circ$  in anticlockwise direction. hence, the West will be North.

**A man leaves from his office for his home. He walks towards East. After moving a distance of 20 m, he turns South and walks 10 m. Then he walks 35 m towards the west and further 5 m towards the north. He then turns towards east and walks 15 m. What is the straight distance (in metres) between his initial and final position?**

- A. 0
- B. 5
- C. 10
- D. 11

**Answer:** Option B

**Solution:**



Movement of the man is O to E. And The distance between final and initial position is,  
 $EO = AB - DC = 10 - 5 = 5 \text{ m}$

**One evening before sunset Rekha and Hema were talking to each other face to face. If Hema's shadow was exactly to the right of Hema, which direction was Rekha facing?**

- A. North
- B. South
- C. East
- D. Data is inadequate

**Answer:** Option B

**Solution:**

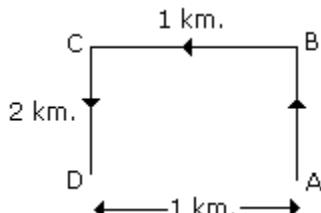
In the evening sun sets in West. Hence then any shadow falls in the East. Since Hema's shadow was to the right of Hema. Hence Rekha was facing towards South.

**A boy rode his bicycle Northward, then turned left and rode 1 km and again turned left and rode 2 km. He found himself 1 km west of his starting point. How far did he ride northward initially?**

- A. 1 km
- B. 2 km
- C. 3 km
- D. 5 km

**Answer: Option B**

**Solution:**



The boy rode 2 km. Northward

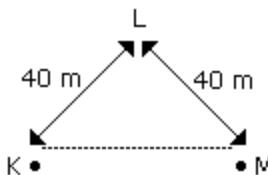
**K is 40 m South-West of L. If M is 40 m South-East of L, then M is in which direction of K?**

- A. East
- B. West
- C. North-East
- D. South

**n**

**Answer: Option A**

**Solution:**



Hence M is in the East of K

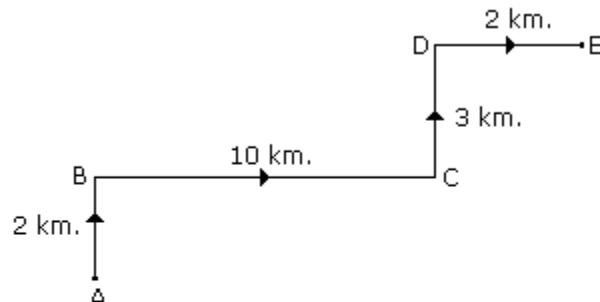
**A man walks 2 km towards North. Then he turns to East and walks 10 km. After this he turns to**

**North and walks 3 km. Again he turns towards East and walks 2 km. How far is he from the starting point?**

- A. 10 km
- B. 13 km
- C. 15 km
- D. None of these

**Answer: Option B**

**Solution:**



Required distance = AE

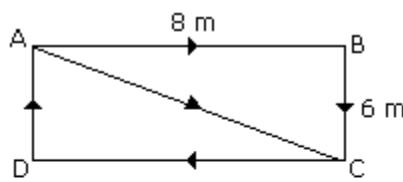
$$\begin{aligned}
 &= \sqrt{5^2 + 12^2} \\
 &= 13 \text{ km.}
 \end{aligned}$$

**The length and breadth of a room are 8 m and 6 m respectively. A cat runs along all the four walls and finally along a diagonal order to catch a rat. How much total distance is covered by the cat?**

- A. 10
- B. 14
- C. 38
- D. 48

**Answer: Option C**

**Solution:**



$$\begin{aligned}
 \text{Required distance} &= 8 + 6 + 8 + 6 + \sqrt{8^2 + 6^2} \\
 &= 28 + \sqrt{100} \\
 &= 28 + 10 \\
 &= 38 \text{ m}
 \end{aligned}$$

One morning sujata started to walk towards the Sun. After covering some distance she turned to right then again to the right and after covering some distance she again turns to the right. Now in which direction is she facing?

- A. North
- B. South
- C. North-East
- D. South-West

**Answer: Option A**

**Solution:**

Hence finally Sujata will face towards North

Some boys are sitting in three rows all facing North such that A is in the middle row. P is just to the right of A but in the same row. Q is just behind of P while R is in the North of A. In which direction of R is Q?

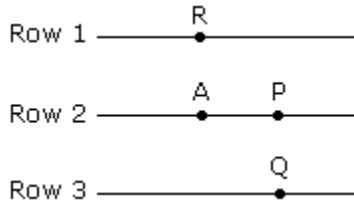
- A. South
- B. South-West

C. North-East

D. South-East

**Answer: Option D**

**Solution:**



Q is in South-East of R

One morning after sunrise, Vimal started to walk. During this walking he met Stephen who was coming from opposite direction. Vimal watch that the shadow of Stephen to the right of him (Vimal). To Which direction Vimal was facing?

- A. East
- B. West
- C. South
- D. Data inadequate

**Answer: Option C**

**Solution:**

Sun rises in the east. So the shadow of a man will always falls towards the west. Since the shadow of Stephen is to the right of Vimal. Hence Vimal is facing towards South.

Golu started from his house towards North. After covering a distance of 8 km. he turned towards left and covered a distance of 6 km. What is the shortest distance now from his house?

- A. 10 km.

- B. 16 km.
- C. 14 km
- D. 2 km.

**Answer:** Option A

**Solution:**

P started from his house towards west. After walking a distance of 25 m. He turned to the right and walked 10 m. He then again turned to the right and walked 15 m. After this he is to turn right at  $135^\circ$  and to cover 30 m. In which direction should he go?

- A. West
- B. South
- C. South-West
- D. South-East

**Answer:** Option C

**Solution:**

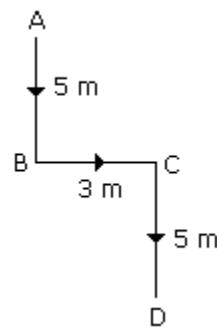
Hence he should go in the South-West direction.

X started to walk straight towards south. After walking 5 m he turned to the left and walked 3 m. After this he turned to the right and walked 5 m. Now to which direction X is facing?

- A. North-East
- B. South
- C. North
- D. South-West

**Answer:** Option B

**Solution:**



Hence X will face in the end towards South.

Hemant in order to go to university started from his house in the east and came to a crossing. The road to the left ends in a theatre, straight ahead is the hospital. In which direction is the university?

- A. North
- B. South
- C. East
- D. West

**Answer:** Option A

**Solution:**

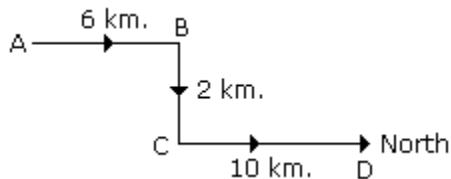
Therefore university is in North.

After walking 6 km, I turned to the right and then walked 2 km. After then I turned to the left and walked 10 km. In the end, I was moving towards the North. From which direction did I start my journey?

- A. North
- B. South
- C. East
- D. West

**Answer:** Option B

**Solution:**



The journey was started from the South.

**Ravi left home and cycled 10 km towards South, then turned right and cycled 5 km and then again turned right and cycled 10 km. After this he turned left and cycled 10 km. How many kilometers will he have to cycle to reach his home straight?**

- A. 10 km
- B. 15 km
- C. 20 km
- D. 25 km

**Answer:** Option B

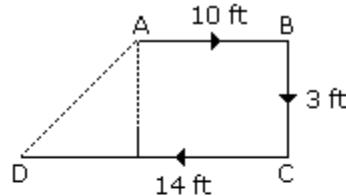
**Solution:**

Reena walked from A to B in the East 10 feet. Then she turned to the right and walked 3 feet. Again she turned to the right and walked 14 feet. How far is she from A?

- A. 4 feet
- B. 5 feet
- C. 24 feet
- D. 27 feet

**Answer:** Option B

**Solution:**



Required distance = AD

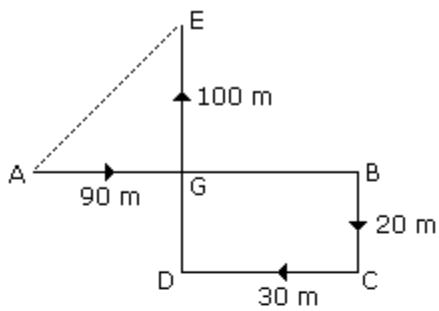
$$\begin{aligned}
 &= \sqrt{3^2 + (14 - 10)^2} \\
 &= \sqrt{9 + 16} \\
 &= 5 \text{ ft}
 \end{aligned}$$

**A child went 90 m in the East to look for his father, then he turned right and went 20 m. After this he turned right and after going 30 m he reached to his uncle's house. His father was not there. From there he went 100 m to his north and met his father. How far did he meet his father from the starting point?**

- A. 80 m
- B. 100 m
- C. 140 m
- D. 260 m

**Answer:** Option B

**Solution:**



Required distance = AE

$$\begin{aligned}
 &= \sqrt{AG^2 + EG^2} \\
 &= \sqrt{(90 - 30)^2 + (100 - 20)^2} \\
 &= \sqrt{(60)^2 + (80)^2} \\
 &= \sqrt{3600 + 6400} \\
 &= \sqrt{10000} \\
 &= 100 \text{ m}
 \end{aligned}$$

**Radha moves towards South-East a distance of 7 km, then she moves towards West and travels a distance of 14 km. From here she moves towards North-West a distance of 7 km and finally she moves a distance of 4 km towards east. How far is she now from the starting point?**

- A. 3 km
- B. 4 km
- C. 10 km
- D. 11 km

**Answer: Option C**

**Solution:**

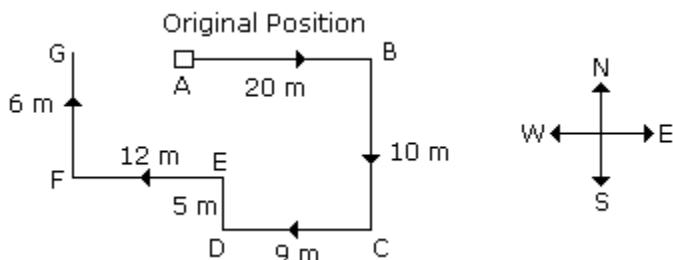
Sundar runs 20 m towards East and turns to right and runs 10 m. Then he turns to the right and runs 9 m. Again he turns to right and runs 5 m. After this he turns to left and runs 12 m and

finally he turns to right and 6 m. Now to which direction is Sundar facing?

- A.  East
- B.  West
- C.  North
- D.  South

**Answer: Option C**

**Solution:**



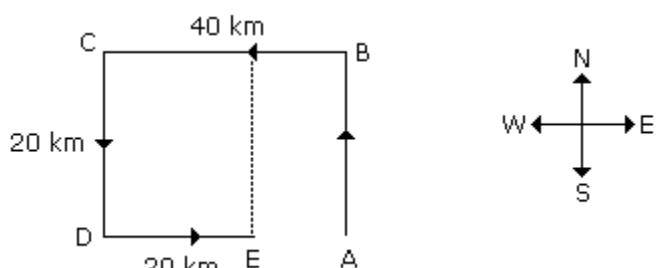
Therefore, it is clear that Sundar will face towards North

**Sachin walks 20 km towards North. He turns left and walks 40 km. He again turns left and walks 20 km. Finally he moves 20 km after turning to the left. How far is he from his starting position?**

- A.  20 km.
- B.  30 km.
- C.  50 km.
- D.  60 km.

**Answer: Option A**

**Solution:**



Required distance =  $40 - 20 = 20 \text{ km}$

**From his house, Lokesh went 15 km to the North. Then he turned west and covered 10 km. Then he turned south and covered 5 km. Finally turning to the east, he covered 10 km. In which direction is he from his house?**

- A. East
- B. West
- C. North
- D. South

**Answer: Option C**

**Solution:**

Therefore, it is clear that he is in the North from his house.

## Chapter:- 4 Blood Relation

### Introduction:

The questions which are asked in this section depend upon **Relation**. You should have a sound knowledge of the blood relation in order to solve the questions.

To remember easily the relations may be divided into two sides as given below:

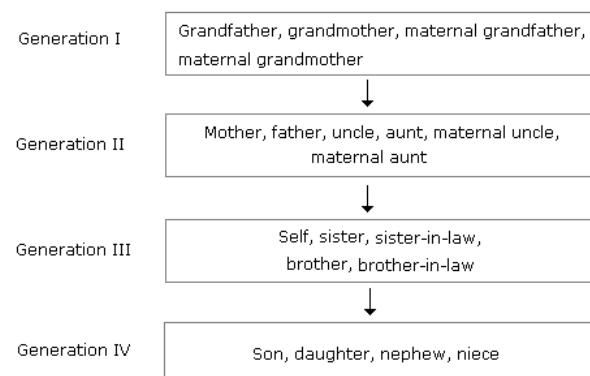
### 1. Relations of Paternal side:

1. Father's father → Grandfather
2. Father's mother → Grandmother
3. Father's brother → Uncle
4. Father's sister → Aunt
5. Children of uncle → Cousin
6. Wife of uncle → Aunt
7. Children of aunt → Cousin
8. Husband of aunt → Uncle

### 2. Relations of Maternal side:

1. Mother's father → Maternal grandfather
2. Mother's mother → Maternal grandmother
3. Mother's brother Maternal uncle
4. Mother's sister → Aunt
5. Children of maternal uncle → Cousin
6. Wife of maternal uncle → Maternal aunt

### Relations from one generation to next:



1. Pointing to a photograph of a boy Suresh said, "He is the son of the only son of my mother." How is Suresh related to that boy?

- A. Brother
- B. Uncle
- C. Cousin
- D. Father

**Answer:** Option D

**Explanation:**

The boy in the photograph is the only son of the son of Suresh's mother i.e., the son of Suresh. Hence, Suresh is the father of boy.

---

2. If A + B means A is the mother of B; A - B means A is the brother B; A % B means A is the father of B and A x B means A is the sister of B, which of the following shows that P is the maternal uncle of Q?

- A. Q - N + M x P
  - B. P + S x N - Q
  - C. P - M + N x Q
  - D. Q - S % P
- 

3. If A is the brother of B; B is the sister of C; and C is the father of D, how D is related to A?

- A. Brother
  - B. Sister
  - C. Nephew
  - D. Cannot be determined
- 

**Answer:** Option D

**Explanation:**

If D is Male, the answer is Nephew.

If D is Female, the answer is Niece.

As the sex of D is not known, hence, the relation between D and A cannot be determined.

Note: Niece - A daughter of one's brother or sister, or of one's brother-in-law or sister-in-law. Nephew - A son of one's brother or sister, or of one's brother-in-law or sister-in-law.

---

4. If A + B means A is the brother of B; A - B means A is the sister of B and A x B means A is the father of B. Which of the following means that C is the son of M?

- A. M - N x C + F
- B. F - C + N x M
- C. N + M - F x C
- D. M x N - C + F

**Answer:** Option D

**Explanation:**

M x N → M is the father of N

N - C → N is the sister of C

and C + F → C is the brother of F.

Hence, M is the father of C or C is the son of M.

---

5. Introducing a boy, a girl said, "He is the son of the daughter of the father of my uncle." How is the boy related to the girl?

- A. Brother
  - B. Nephew
  - C. Uncle
  - D. Son-in-law
- 

**Answer:** Option A

**Explanation:**

The father of the boy's uncle → the grandfather of the boy and daughter of the grandfather → sister of father

---

**A is son of C while C and Q are the sisters to one another. Z is the mother of Q. If P is the son of Z, Which one of the following statements is correct ?**

- A. Q is the grandfather of A
  - B. P is the maternal uncle of A
  - C. P is the cousin of A
-

- D. Z is the brother of C

**Answer: Option B**

**Solution:**

Since, C and Q are sisters to one another and A is the son of C. Hence, C is the mother of Q, therefore, Z is maternal grandfather of A. As P is the son of Z. Hence, P is the maternal uncle of A.

**Pointing at a photo, Dinesh said, "His father is only son of my mother." The photo belongs to- :**

- A. Dinesh
- B. Dinesh's brother
- C. Dinesh's father
- D. Dinesh's son

**Answer: Option D**

**Solution:**

Since, the only son of the mother of Dinesh, is Dinesh, therefore, the photo belongs to Dinesh's son.

**Looking at a portrait of a man, Sanjay said, "His mother is the wife of my father's son. Brothers and sisters I have none." At whose portrait was Sanjay Looking.**

- A. His son
- B. His nephew
- C. His cousin
- D. His uncle

**Answer: Option A**

**Solution:**

Since, Sanjay has neither a sister nor a brother, therefore, Sanjay is the only son of his father. Hence, the mother of the portrait is wife of Sanjay. Therefore, the portrait is the wife of the Sanjay. Therefore, portrait was of Sanjay's son.

**A man said to a lady, "The son of your only brother is the brother of my wife." What is the lady to the man.**

- A. Mother
- B. Sister

- C. Sister of father-in-law

- D. Grandfather

- E. Maternal aunt

**Answer: Option C**

**Solution:**

Since, the son of the only brother of the lady is the nephew of the lady, therefore, the wife of the man is the niece of the lady. Hence, the lady is the sister of the father-in-law of the man.

**If A is the brother of B and K, D is the the mother of B and E is the father of A. Which one of the following statement is not definitely true ?**

- A. B is the brother of K
- B. A is the father of K
- C. A is the son of D
- D. D is the wife of E

**Answer: Option B**

**Solution:**

In the family, E is the father whose wife is D. E has three children A, B and K out of which A is the son. Hence, A cannot be the father of K

**Akash said to Mohit, "That boy in blue shirt is younger of the two brothers of the daughter of my father's wife." How is the boy in the blue shirt related to Akash ?**

- A. Father
- B. Uncle
- C. Brother
- D. Nephew

**Answer: Option C**

**Solution:**

The daughter of Akash's father's wife is the sister of Akash and brother of the daughter is the brother of Akash.

**Arun said, "This girl is the wife of the grandson of my mother." Who is Arun to the girl?**

- A. Father
- B. Grandfather
- C. Husband
- D. Father-in-law

**Answer: Option D**

**Solution:**

Mother's grandson → Son.

Son's wife → Daughter-in-law.

---

**Pointing to Ketan, Namarata Said, "He is the son of my father's only son." How Ketan's mother related to Namarata?**

- A. Daughter
- B. Aunt
- C. Sister
- D. Sister-in-law

**Answer: Option D**

**Solution:**

Namarata's father's only son's Namarata's brother.

So, ketan is the son of Namarata's brother. thus. Ketan's mother is the wife of Namarata's brother i.e. Namarata's Sister-in-law.

---

**A, B and C are sisters, D is the brother of E and E is the daughter of B. How is A related to D ?**

- A. Sister
- B. Cousin
- C. Niece
- D. Aunt

**Answer: Option D**

**Solution:**

E is the daughter of B and D is the brother of E. So, D is the son of B. Also, A is the sister of B. Thus, A is D's aunt.

---

**P's father is Q's son. M is the paternal uncle of P and N is the Brother of Q. How is N related to M ?**

- A. Brother

- B. Cousin
- C. Nephew
- D. Data inadequate
- E. None of these

**Answer: Option D**

**Solution:**

P's father is Q's son. So, Q is P's grandfather. M is the paternal uncle of P. So M is the brother of P's father. This means that M is also Q's son. N is the brother of Q. Thus, N is the paternal uncle of P.

---

**Pointing a photograph X said to his friend Y, "She is the only daughter of the father of my mother." How X is related to the person of photograph?**

- A. Daughter
- B. Son
- C. Nephew
- D. Cannot be decided

**Answer: Option B**

**Solution:**

'The only daughter of the father of X's mother' means mother of X.

Hence X is the son of the lady in the photograph.

Note: Still have doubt like "How X is a male?"

---

**Veena who is the sister-in-law of Ashok, is the daughter-in-law of Kalyani. Dheeraj is the father of Sudeep who is the only brother of Ashok. How Kalyani is related to Ashok?**

- A. Mother-in-law
- B. Aunt
- C. Wife
- D. None of these

**Answer: Option D**

**Solution:**

Ashok is the only brother of Sudeep and Veena is the sister-in-law of Ashok. Hence Veena is the wife of Sudeep. Kalyani is the mother-in-law of Veena. Kalyani is the mother of Ashok

---

If A + B means A is the sister of B; A x B means A is the wife of B, A % B means A is the father of B and A - B means A is the brother of B. Which of the following means T is the daughter of P?

- A.  $P \times Q \% R + S - T$
- B.  $P \times Q \% R - T + S$
- C.  $P \times Q \% R + T - S$
- D.  $P \times Q \% R + S + T$

**Answer:** Option B

**Solution:**

$P \times Q \rightarrow P$  is the wife of Q  
 $Q \% R \rightarrow Q$  is the father of R  
 $R - T \rightarrow R$  is the brother of T  
 $T + S \rightarrow T$  is the sister of S.  
Therefore, T is the daughter of P.

Pointing to a woman, Abhijit said, "Her granddaughter is the only daughter of my brother." How is the woman related to Abhijit?

- A. Sister
- B. Grandmother
- C. Mother-in-law
- D. Mother

**Answer:** Option D

**Solution:**

Daughter of Abhijit's brother  $\rightarrow$  niece of Abhijit. Thus the granddaughter of the woman is Abhijit's niece.  
Hence, the woman is the mother of Abhijit Amit said - "This girl is the wife of the grandson of my mother".  
How is Amit related to the girl?

- A. Brother
- B. Grandfather
- C. Husband
- D. Father-in-law

**Answer:** Option D

**Solution:**

The girl is the wife of grandson of Amit's mother i.e., the girl is the wife of son of Amit. Hence, Amit is the father-in-law of the girl.

Pointing to a person, Deepak said, "His only brother is the father of my daughter's father". How is the person related to Deepak?

- A.  $\bullet$  Father
- B.  $\bullet$  Grandfather
- C.  $\bullet$  Uncle
- D.  $\bullet$  Brother-in-law

**Answer:** Option C

**Solution:**

Father of Deepak's daughter's father  $\rightarrow$  Deepak's father.  
Hence, the person in the brother of Deepak's father.  
Therefore, the person is the uncle of Deepak.

P is the mother of K; K is the sister of D; D is the father of J. How is P related to J?

- A.  $\bullet$  Mother
- B.  $\bullet$  Grandmother
- C.  $\bullet$  Aunt
- D. Data inadequate

**Answer:** Option B

**Solution:**

P is the mother of K  
K is the sister of D  
D is the father of J.  
Therefore, J is the nephew or niece of K and P is the grandmother of J.

If  $P \$ Q$  means P is the father of Q;  $P \# Q$  means P is the mother of Q and  $P * Q$  means P is the sister of Q, then  $N \# L \$ P * Q$  shows which of the relation of Q to N?

- A.  $\bullet$  Grand son
- B.  $\bullet$  Grand daughter
- C.  $\bullet$  Nephew
- D. Data is inadequate

**Answer:** Option D

**Solution:**

As the sex of Q is not known, hence, data is inadequate.

If A \$ B means A is the brother of B; A @ B means A is the wife of B; A # B means A is the daughter of B and A \* B means A is the father of B, which of the following indicates that U is the father-in-law of P?

- A. P @ Q \$ T # U \* W
- B. P @ W \$ Q \* T # U
- C. P @ Q \$ W \* T # U
- D. P @ Q \$ T # W \* U

**Answer:** Option A

**Solution:**

P @ Q → P is the wife of Q ... (1)  
Q \$ T → Q is the brother of T ... (2)  
T # U → T is the daughter of U  
Hence, → Q is the son of U ... (3)  
U \* W → U is the father of W.

From (1) and (3), U is the father-in-law of P

Introducing a man, a woman said, "He is the only son of the mother of my mother." How is the woman related to the man?

- A. Mother
- B. Sister
- C. Niece
- D. Maternal aunt

**Answer:** Option C

**Solution:**

The man is the only son of the mother of the woman.  
Hence, the man is the maternal uncle of the woman. So,  
the woman is the niece of the man

If A \$ B means A is the brother of B; B \* C means B is the son of C; C @ D means C is the wife of D and A # D means A is the son of D, how C is related to A?

- A. Maternal grandmother
- B. Maternal aunt
- C. Aunt
- D. Mother

**Answer:** Option D

**Solution:**

A \$ B → A is the brother of B  
B \* C → B is the son of C  
Hence, → A is the son of C  
C @ D → C is the wife of D  
Hence, → C is the mother of A

Pointing to a girl Sandeep said, "She is the daughter of the only sister of my father." How is Sandeep related to the girl?

- A. Uncle
- B. Cousin
- C. Father
- D. Grandfather

**Answer:** Option B

**Solution:**

The girl is the daughter of the sister of Sandeep's father.  
Hence, the girl is the cousin or Sandeep is the cousin of  
the girl.

Pointing to a boy in the photograph Reena said,  
"He is the only son of the only child of my grandfather." How Reena is related to that boy?

- A. Mother
- B. Sister
- C. Aunt
- D. Cannot be determined

**Answer:** Option B

**Solution:**

The boy in the photograph is the only son of Reena's  
grandfather's only son; i.e., the boy is the only son of  
Reena's father.

Hence, the boy is the brother of Reena or Reena is the  
sister of the boy

1. A \* B means A is the sister of B
2. A \$ B means B is the mother of A
3. A + B means A is the brother of B
4. A = B means B is the father of A.

Which of the following means M is the maternal  
uncle of N?

- A.  $M = P + Q * N$
- B.  $N + P = Q * M$
- C.  $N * P \$ Q * M$
- D. None of these

**Answer:** Option D

No explanation is given for this question **Let's Discuss on Board**

If  $M \times N$  means  $M$  is the daughter of  $N$ ;  $M + N$  means  $M$  is the father of  $N$ ;  $M \% N$  means  $M$  is the mother of  $N$  and  $M - N$  means  $M$  is the brother of  $N$  then  $P \% Q + R - T \times K$  indicates which relation of  $P$  to  $K$ ?

- A. Daughter-in-law
- B. Sister-in-law
- C. Aunt
- D. None of these

**Answer:** Option D

**Solution:**

$P \% Q \rightarrow P$  is the mother of  $Q$   
 $Q + R \rightarrow Q$  is the father of  $R$   
 $R - T \rightarrow R$  is the brother of  $T$   
Hence,  $\rightarrow Q$  is the father of  $T$   
 $T \times K \rightarrow T$  is the daughter of  $K$   
Hence,  $\rightarrow Q$  is the husband of  $K$ .  
Therefore,  $P$  is the mother-in-law of  $K$

Pointing to a women, Naman said, "She is the daughter of the only child of my grandmother." How is the women related to Naman?

- A. Sister
- B. Niece
- C. Cousin
- D. Data inadequate
- E. None of these

**Answer:** Option A

**Solution:**

Only child of Naman's grandmother-----Naman's father/mother  
Daughter of Naman's father/mother-----Naman's sister.

**Pointing to a photograph a man said,"I have no brother or sister but that man's father is my father's son." Whose photograph was it ?**

- A. His own
- B. His son's
- C. His father's
- D. His nephew's
- E. None of these

**Answer:** Option B

**Solution:**

Since the narrator has no brother, his father's son is he himself. So, the man who is talking is the father of the man in the photograph. Thus, the man in the photograph is his son.

**Introducing a man, a woman said," His wife is the only daughter of my father," How is that man related to the woman?**

- A. Brother
- B. Father-in-law
- C. Maternal uncle
- D. Husband
- E. None of these

**Solution:**

Only daughter of woman's father-----woman herself. So, the man is woman's husband.

**Pointing to a photograph."She is the grand daughter of the elder brother of my father." How is the girl in the photograph related to this man?**

- A. Niece
- B. Sister
- C. Aunt

- D. Sister-in-law
- E. Maternal aunt

**Answer: Option A**

**Solution:**

Brother of father----Uncle: Uncle's grand daughter----  
Daughter of uncle's son---Daughter of cousin---Niece.

**Introducing Reena, Monika said, "She is the only daughter of my father's only daughter." How is Monika related to Reena?**

- A. Aunt
- B. Niece
- C. Cousin
- D. Data inadequate
- E. None of these

**Answer: Option E**

**Solution:**

Monika's father's only daughter----Monika.  
So, Reena is Monika's daughter,i.e. Monika is Reena's mother.

**Introducing a man to her husband, a woman said, "His brother's father is the only son of my grandfather." How is the woman related to this man?**

- A. Mother
- B. Aunt
- C. Sister
- D. uncle
- E. Nephew

**Answer: Option C**

**Solution:**

Only son of woman's grandfather---Woman's father;  
Man's brother's sister---Man's father.  
So, man's father is woman's father i.e. woman is the man's sister

**A girl introduced a boy as the son of the daughter of the father of her uncle. The boy is girl's?**

- A. Brother
- B. Son
- C. Uncle
- D. Son-in-law
- E. Nephew

**Answer: Option A**

**Solution:**

Daughter of uncle's father---Uncle's sister---mother,  
Mother's son--- Brother.

**Pointing to a lady, a man said, " The son of her only brother is the brother of my wife." How is the lady related to the man?**

- A. Mother's sister
- B. Grandmother
- C. Mother-in-law
- D. Sister of father-in-law
- E. Maternal aunt

**Answer: Option D**

**Solution:**

Wife's brother---Brother-in-law.  
Son of lady's brother is the brother-in-law of the man.  
So, lady's brother is man's father-in-law i.e. the lady is the sister of man's father-in-law.

**Pointing to Kapil, Shilpa said, "His mother's brother is the father of my son Ashish." How is kapil related to Shilpa?**

- A. Sister-in-law
- B. Nephew
- C. Niece
- D. Aunt
- E. None of these

**Answer: Option B**

**Solution:**

Father of Shilpa's son---Shilpa's husband.  
So, Kapil is the son of sister of Shippa's husband.  
Thus, Kapil is Shilpa's nephew.

**Pointing to Ketan, Namrata said, " He is the son of my father's only son." How is ketan's mother related to Namrata?**

- A. Daughter
- B. Aunt
- C. Sister
- D. Sister-in-law
- E. None of these

**Answer: Option D**

**Solution:**

Namrata's father's only son---Namrata's brother.  
So, Ketan is the son of Namrata's brothers. Thus, Ketan's mother is the wife of Namrata's brother i.e. Namrata's sister in law.

**A woman introduces a man as the son of the brother of her mother. How is the man related to the woman?**

- A. Nephew
- B. Son
- C. Cousin
- D. Uncle
- E. Grandson

**Answer: Option C**

**Solution:**

Brother of mother---Uncle; Uncle's son---Cousin.

**Pointing out to a lady, a girl said, " She is the daughter in law of the grandmother of my father's only son." How is the lady related to the girl ?**

- A. Sister-in-law
- B. Mother
- C. Aunt

- D. Mother-in-law
- E. Cousin

**Answer: Option B**

**Solution:**

Girl's father's only son---Girl's brother; Grand mother of girl's brother---Girls grand mother; Daughter-in-law of girl's grand mother---Girl's mother.

**Introducing a man, a woman said, "He is the only son of my mother's mother." How is the woman related to the man ?**

- A. Mother
- B. Aunt
- C. Sister
- D. Niece
- E. None of these

**Answer: Option D**

**Solution:**

Mother's mother---Maternal grand mother; Maternal grand mother's only son---Maternal uncle.  
So, the man is woman's maternal uncle i.e., the woman is man's niece.

**Pointing to a photograph, a woman says, " This man's son's sister is my mother-in-law," How is the women's husband related to the man in the photograph?**

- A. Grandson
- B. Son
- C. Son-in-law
- D. Nephew
- E. None of these

**Answer: Option A**

**Solution:**

Man's son's sister---Man's daughter.  
So, the man's daughter is the mother of the woman's husband. Thus, the woman's husband is the grandson of the man in the photograph

**Pointing to a photograph, Arun said, " She is the mother of my son's wife's daughter." How is Arun related to the lady?**

- A. Uncle
- B. Cousin
- C. Daughter-in-law
- D. None of these

**Answer: Option C**

**Solution:**

Arun's son's wife's daughter---Arun's son's daughter;  
Mother of daughter of Arun's son---Wife of Arun's son.  
So, Arun is the father-in-law of the lady.

- A. 3
- B. 4
- C. 6
- D. 0

**Answer: Option D**

**Solution:**

By, comparing letters and digit, we get

$$\begin{aligned} T &= 1 \\ O &= 2 \\ U &= 3 \\ R &= 4 \\ C &= 5 \\ L &= 6 \\ E &= 7 \\ A &= 8 \\ S &= 9 \text{ and} \\ P &= 0 \end{aligned}$$

As the 5<sup>th</sup> letter is SCULPTURE is P and '0' is used for P, therefore, 5th digit is the required code which is '0'.

## Chapter 5 :- Coding and Decoding

**In a certain code FIRE is coded as DGPC. What will be the last letter of the coded word for SHOT.**

- A. Q
- B. R
- C. S
- D. P

**Answer: Option B**

**Solution:**

D is used for F.

G is used for I.

P is used for R.

and

C is used for E. Thus, it is clear that each letter of the word FIRE stands for each corresponding letter of the coded word DGPC two places ahead. By applying the same principle, the letters QFMR will stand for SHOT. Hence, the last letter of the coded word is R

**If TOUR is written in a certain code as 1234, CLEAR as 56784 and SPARE as 90847, what will be the 5<sup>th</sup> digit for SCULPTURE in the same code ?**

**If in a certain language PROSE is coded as PPOQE, how is LIGHT coded in that code ?**

- A. LIGFT
- B. LGGHT
- C. LGGFT
- D. LLGFE

**Answer: Option C**

**Solution:**

In the given code

$$\text{PROSE} = \text{PPOQE}$$

The first, third and fifth letters are same but in the place of second and fourth letters previous two letters are used. So,

$$\text{LIGHT} = \text{LGGFT}.$$

**If SUMMER is coded RUNNER, the code for WINTER is**

- A. SUITER
- B. VIOUER

C. WALKER

D. SUFFER

**Answer:** Option B

**Solution:**

SUMMER = RUNNER

In the given code, second, fifth and sixth letters are same. The first letter of the word (**S** → **R**) is moved one step backward, while the two middle letters (**M** → **N** and **M** → **N**) each moved one step forward to obtain the corresponding letters of the code. So,

**WINTER** = VIOUER.

If MIND becomes KGLB and ARGUE becomes YPESC, then what will DIAGRAM be in that code ?

A. BGYEPYK

B. BGYPYEK

C. GLPEYKB

D. LKBGYPK

**Answer:** Option A

**Solution:**

MIND = KGLB

Each letter in the word is moved two steps backward to obtain the corresponding letter of the code. So,

**DIAGRAM** = BGYEPYK.

In a certain language PRACTICE is coded as PICCTRAE, how is FLAMES coded in that code ?

A. FEMALS

B. FALMES

C. FMELAS

D. FALEMS

**Answer:** Option C

**Solution:**

PRACTICE = PICCTRAE.

First and last letters are same but second and third letters and third last and second last letters have been interchanged.

So,

FLAMES = FMELAS

If the KNIFE is coded as MPKHG, what do the letters DTGCF stand for ?

A. BARED

B. BREAD

C. BRADE

D. BRAED

**Answer:** Option B

**Solution:**

KNIFE = MPKHG.

Each letters of the word KNIFE stand for each corresponding letter of the word MPKHG, two places ahead.

So,

BREAD = DTGCF.

If the letters GBOQX stand for HAPPY , for which word the letters CROSS stand for ?

A. BS PTR

B. BSNTR

C. BNSTR

D. BSNRT

**Answer:** Option B

**Solution:**

GBOQX = HAPPY

First letter of the word HAPPY is next letter of the first letter of the word GBOQX and second letter of the word HAPPY is the previous letter of the second letter of the word GBOQX. This order is further repeated.

So,

CROSS = BSNTR.

If in a certain language SISTER is coded as 535301 , UNCLE is coded as 84670 and BOY as 129 , how son is coded ?

- A. 923
- B. 524
- C. 342
- D. 872

**Answer:** Option B

**Solution:**

we have, S = 5

I = 3

T = 3

E = 0

R = 1

U = 8

**N = 4**

C = 6

L = 7

B = 1

**O = 2**

Y = 9.

So,  
SON = 524.

- A. 953601347
- B. 567903417
- C. 953016347
- D. 953603741

**Answer:** Option A

**Solution:**

T = 1

O = 2

U = 3

R = 4

C = 5

L = 6

E = 7

A = 8

S = 9

P = 0.

Hence, SCULPTURE = 953601347.

**If HARD is coded s 1357 and SOFT is coded as 2468, what do the figures 21448 stand for ?**

- A. SHOOP
- B. SHOOL
- C. SCOOL
- D. SHOOT

**Answer:** Option D

**Solution:**

H = 1

A = 3

R = 5

D = 7

**S = 2**

**O = 4**

F = 6

**T = 8.**

Hence,

21448 = SHOOT.

**If TOUR is coded as 1357, CLEAR is coded 5678 and SPARE as 90847, how will the word SCULPTURE be coded ?**

- A. N ,M
- B. M ,N
- C. Q ,P
- D. P ,Q

**Answer:** Option D

**Solution:**

Last two letters of the word CDPQYZ are next two letters of the word BOX.

In the same way, the last two letters of HERO if coded will be P, Q.

**Find the correct option for the blank space . B 6 8  
D  
J 14 17 M  
N \_ \_ S**

- A. 18, 23
- B. 14, 19
- C. 16, 21
- D. 15, 20

**Answer:** Option A

**Solution:**

There is gap of one letter between B and D and also there is a gap of one number between 6 and 8. Similarly, there is a gap of two letters between J and M and gap of two number between 14 and 17. Again, there is a gap of 7 letters between 6 and 14. As there is a gap of 3 letter between J and M, therefore, the number with a gap of 3 after 14 is 18. Hence, the required numbers are 18 and 23.

**If dust is called Air, Air is called Fire, Fire is called Water, Water is called Colour , Colour is called Rain and Rain is called Dust, where do Fish live ?**

- A. Dust
- B. Fire
- C. Colour
- D. Water

**Answer: Option C**

**Solution:**

Generally, Fishes lives in Water and Water is called Colour in the code. So Fishes live in Colour.

**If ERASER is called PENCIL and PENCIL is called SHARPENER and SHARPENER is called BAG, what will a child write with ?**

- A. BOX
- B. PENCIL
- C. SHARPENER
- D. BAG

**Answer: Option C**

**Solution:**

A child writes with the Pencil and Pencil is called Sharpener. So the child writes with Sharpener.

**If LIGHT is called MORNING, MORNING is called DARK, DARK is called NIGHT, NIGHT is called SUNSHINE and SUNSHINE is called DUSK, when do we sleep ?**

- A. Dusk
- B. Dark
- C. Sunshine
- D. Night

**Answer: Option C**

**Solution:**

We sleep at Night and Night is called Sunshine. So, we sleep in Sunshine

**If a MAN is called GIRL, GIRL is called WOMAN, WOMAN is called BOY, BOY is called BUTLER and BUTLER is called ROGUE, who will serve in a restaurant ?**

- A. Butler
- B. Woman
- C. Man
- D. Rogue

**Answer: Option D**

**Solution:**

BUTLER serves in the restaurant and BUTLER is called ROGUE. So, ROGUE will be serv

**If,**

- (a) QUO CUI HEER means BOY IS GOOD.
  - (b) LAI QUO MEA means SITA IS FAIR.
  - (c) RUO LEV MEA means ALL ARE FAIR.
  - (d) SI HAI CUI means DOG WAS GOOD.
- then which of the following words stands for BOY ?

- A. Quo
- B. Lai
- C. Cui
- D. Heer

**Answer: Option D**

**Solution:**

By comparing the given codes, we get QUO means IS and CUI means GOOD, therefore, HEER means BOY.

If,

- (A) CHIP DIN CHUNK means STUDENT ATTENDS CLASS.  
(B) DIN SHUNK DINK means ARJUN IS STUDENT.  
(C) JUMP MINK SINK means SCHOOLS ARE GOOD.  
(D) DINK MUP CHIMP means TEACHER IS TEACHING.

Then which one of the following is used for Arjun ?

- A. Chunk
- B. Din
- C. Dink
- D. Shunk

**Answer: Option D**

**Solution:**

CHIP DIN CHUNK = STUDENT ATTENDS CLASS.

DIN SHUNK DINK = ARJUN IS STUDENT.

Hence, DIN = STUDENT.

DINK MUP CHIMP = TEACHER IS TEACHING.

Hence, DINK = IS.

Therefore, **ARJUN = SHUNK.**

- 1 3 4 means GOOD AND TASTY.  
4 7 8 means SEE GOOD PICTURES.  
7 2 9 means PICTURES ARE FAINT.  
Which of the following stand for SEE ?

- A. 8
- B. 2
- C. 9
- D. 1

**Answer: Option A**

**Solution:**

1 3 4 = GOOD AND TASTY.

4 7 8 = SEE GOOD PICTURES.

Hence, 4 = GOOD. (by comparing I and II.)

7 2 9 = PICTURES ARE FAINT.

and 7 = PICTURES.

Therefore, 8 = SEE.

In a certain code JA KI MO PE means AT A FROG'S LEAP, MO LA KI SO means TAKE A LEAP AHEAD and RE BO JA NA means INSECTS ARE FROG'S DIET. Which of the following is code for AT in that language?

- A. a
- B. pe
- C. bo
- D. re

**Answer: Option B**

**Solution:**

Comparing, the first two sentence, we get,  
A LEAP = MO KI.

Comparing, the first and third sentence, we get code for,  
FROG'S = JA. SO  
from the first sentence, we will get the code of AT = PE

In a certain language, WEAK is coded as 9%@\$ and SKIT is coded as #\$7@, then how will WAIT be coded in the same language?

- A. 9267
- B. 927@
- C. 92@6
- D. 9@67

**Answer: Option B**

**Solution:**

W → 9

E → %

A → 2

K → \$

S → #

I → 7

T → @

So,

WAIT = 927@

**In a certain code, THEN is coded as VFGL. How the WORD may be coded?**

- A. UQPF
- B. YMTB
- C. YMVB
- D. VQFP

**Answer: Option B**

**Solution:**

T (+2) → V  
H (+2) → F  
E (+2) → G  
N (+2) → L  
So,  
W (+2) → Y  
O (+2) → M  
R (+2) → T  
D (+2) → B

**If A = 4, K = 3, N = 2, P = 1, then the sum of which set of the letters makes the highest number?**

- A. KANPK
- B. NPAKN
- C. PKANA
- D. NAKNA

**Answer: Option D**

**Solution:**

Given, A = 4, K = 3, N = 2, P = 1.

Sum of first Set,

$$= K + A + N + P + K = 3 + 4 + 2 + 1 + 3 = 13.$$

Sum of the second set,

$$N + P + A + K + N = 2 + 1 + 4 + 3 + 2 = 12.$$

Sum of the third set,

$$P + K + A + N + A = 1 + 3 + 4 + 2 + 3 = 13.$$

Sum of the fourth set,

$$N + A + K + N + A = 2 + 4 + 3 + 2 + 4 = 15.$$

**In a certain code ORCHESTRA is written as ARTSEORCH. How is DREAMLAND written in that code. ORESTRA**

- A. DNALMAERD
- B. DNALDREAM

- C. DNALMDREA

- D. LANDMDRED

**Answer: Option C**

**Solution:**

ORCHESTRA = ARTSEORCH

**Steps:**

1) The third and fourth letter from begging are fixed at the end of the coded word.

2) The position of second letter and last letter of the word are interchanged in coded word. 3) Second from last and first from beginning are interchanged.

4) Third from last and fifth from first are interchanged.

Following the same steps for the DREAMLAND. We get

DNALMDREA.

**In a certain code JA KI MO PE means AT A FROG'S LEAP, MO LA KI SO means TAKE A LEAP AHEAD and RE BO JA NA means INSECTS ARE FROG'S DIET. Which of the following is code for AT in that language?**

- A. a
- B. pe
- C. bo
- D. re

**Answer: Option B**

**Solution:**

Comparing, the first two sentence, we get,

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Comparing, the first and third sentence, we get code for, FROG'S = JA. SO

from the first sentence, we will get the code of AT = PE

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- A. 9267

- B. 927@

- C. 92@6

D. 9@67

**Answer: Option B**

**Solution:**

W → 9

E → %

A → 2

K → \$

S → #

I → 7

T → @

So,

WAIT = 927@

Given, A = 4, K = 3, N = 2, P = 1.

Sum of first Set,

$$= K + A + N + P + K = 3 + 4 + 2 + 1 + 3 = 13.$$

Sum of the second set,

$$N + P + A + K + N = 2 + 1 + 4 + 3 + 2 = 12.$$

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Sum of the fourth set,

$$N + A + K + N + A = 2 + 4 + 3 + 2 + 4 = 15.$$

23.

In a certain code, THEN is coded as VFGL. How the WORD may be coded?

- A. UQPF
- B. YMTB
- C. YMVB
- D. VQFP

**Answer: Option B**

**Solution:**

T (+2) → V

H (+2) → F

E (+2) → G

N (+2) → L

So,

W (+2) → Y

O (+2) → M

R (+2) → T

D (+2) →

A. DNALMAERD

B. DNALDREAM

C. DNALMDREA

D. LANDMDRED

**Answer: Option C**

**Solution:**

ORCHESTRA = ARTSEORCH

**Steps:**

1) The third and fourth letter from beginning are fixed at the end of the coded word.

2) The position of second letter and last letter of the word are interchanged in coded word. 3) Second from last and first from beginning are interchanged.

4) Third from last and fifth from first are interchanged.

Following the same steps for the DREAMLAND. We get

DNALMDREA.

If A = 4, K = 3, N = 2, P = 1, then the sum of which set of the letters makes the highest number?

- A. KANPK
- B. NPAKN
- C. PKANA
- D. NAKNA

**Answer: Option D**

**Solution:**

- D. Trade Policy

**Answer: Option D**

**Solution:**

Dam is constructed for water and Trade policy is formulated for Trade policy.

**Interest : Money lender :: Salary : ?**

- A. Employees
- B. Zamindar
- C. Workers
- D. Prisoners

**Answer: Option A**

**Solution:**

Interest is given to money lender and salary is given to employees.

**Mind it wages are given to Workers.**

**Asthma : Lungs ::  
Conjunctivitis : ?**

- A. Bones
- B. Teeth
- C. Eyes
- D. Blood

**Answer: Option C**

**Solution:**

As Asthma is a disease of Lungs similarly Conjunctivitis is a disease of Eyes.

**Dismay : Joy :: Tend : ?**

- A. Regret
- B. Ignore
- C. Negligible
- D. Spoil

**Answer: Option B**

**Solution:**

Dismay and Joy are opposite to each other same way Tend and Ignore are also opposite to each other.

**Thermometer : Temperature ::  
Glucometer : ?**

- A. Body sugar

## Chapter 5 analogy

**Insect : Disease :: War : ?**

- A. Army
- B. Defeat
- C. Arsenal
- D. Destruction

**Answer: Option D**

**Solution:**

Insect invites disease and War invites destruction

**Book : Cover :: Painting : ?**

- A. Example
- B. Wall
- C. Colour
- D. Frame

**Answer: Option D**

**Solution:**

Cover is used to protect book in same way and frame is used to protect painting.

**Float : Sink :: Boat : ?**

- A. Ship
- B. War
- C. Submarine
- D. Missile

**Answer: Option C**

**Solution:**

Float means above water and sink means under water. In same way, Boat floats on water and submarine moves under water.

**Water : Dam :: Trade : ?**

- A. Commerce
- B. Economy
- C. Goods

- A. Body resistance
- B. Blood
- C. Blood sugar

**Answer: Option D**

**Solution:**

Thermometer is used to measure Temperature similarly Glucometer use to measure Blood sugar

**Communicable disease :  
Malaria :: Non-communicable  
disease : ?**

- A. Tuberculosis
- B. Hepatitis
- C. AIDS
- D. Cancer

**Answer: Option D**

**Solution:**

Cancer is non-communicable disease.

**6 : 36 :: 9 : ?**

- A. 81
- B. 98
- C. 42
- D. 56

**Answer: Option A**

**Solution:**

$$6 \times 6 = 36.$$

$$9 \times 9 = 81.$$

**Air : Atmosphere :: Water : ?**

- A. Island
- B. Earth
- C. Ocean
- D. Drop
- E. Dew

**Answer: Option C**

**Solution:**

Atmosphere is the biggest unit which contains Air similarly Ocean is the biggest unit which contains Water.

**Mother : Daughter :: Father : ?**

- A. Son
- B. Brother
- C. Boy
- D. Sister

**Answer: Option A**

**Solution:**

Father is the masculine of Mother in same way Son is masculine of Daughter.

**Obey : Defy :: Work : ?**

- A. Lazy
- B. Rest
- C. Idle
- D. Labour

**Answer: Option B**

**Solution:**

Defy is antonym of Obey in same way Rest is antonym of Work.

**Light : Sun :: Heat : ?**

- A. Electricity
- B. Moon
- C. Fire
- D. Stars

**Answer: Option C**

**Solution:**

Sun gives us Light in same way Fire gives us Heat

**Oil : Lamp :: Wax : ?**

- A. Bulb
- B. Candle
- C. Light
- D. Dark

**Answer: Option B**

**Solution:**

Lamp contains Oil in same way Candle contains Wax.

**Parrot : Cage :: Man : ?**

- A. Home
- B. Life

- C. House
- D. Prison

**Answer: Option D**

**Solution:**

**Parrot** is captured in **Cage** in same way **Man** is captured in **Prison**.

### **Mango : Fruit :: Potato : ?**

- A. Root
- B. Stem
- C. Flower
- D. Fruit

**Answer: Option B**

**Solution:**

**Mango** is **Fruit** in same way **Potato** is modified **Stem**.

### **Dog : Bark :: Goat : ?**

- A. Grunt
- B. Bray
- C. Howl
- D. Bleat

**Answer: Option D**

**Solution:**

**Dog** makes noise known as **Bark** and **Goat** makes noise known as **Bleat**.

### **Light : Sun :: Heat : ?**

- A. Electricity
- B. Moon
- C. Fire
- D. Stars

**Answer: Option C**

**Solution:**

**Sun** gives us **Light** in same way **Fire** gives us **Heat**.

### **Oil : Lamp :: Wax : ?**

- A. Bulb
- B. Candle
- C. Light
- D. Dark

**Answer: Option B**

**Solution:**

**Lamp** contains **Oil** in same way **Candle** contains **Wax**.

### **Parrot : Cage :: Man : ?**

- A. Home
- B. Life
- C. House
- D. Prison

**Answer: Option D**

**Solution:**

**Parrot** is captured in **Cage** in same way **Man** is captured in **Prison**

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- C. Howl
- D. Bleat

**Answer: Option D**

**Solution:**

**Dog** makes noise known as **Bark** and **Goat** makes noise known as **Bleat**.

### **Aeroplane : Cockpit :: Train : ?**

- A. Coach
- B. Wagon
- C. Engine
- D. Compartment

**Answer: Option C**

**Solution:**

Pilot of Aeroplane sits in Cockpit and driver of Train works in Engine.

### **Pen : Ink :: Pencil : ?**

- A. Knife
- B. Write
- C. Lead
- D. Chalk

**Answer: Option C**

**Solution:**

Ink is used in Pen same way Lead is used in Pencil.

### **Trouble : Safety :: Freedom : ?**

- A. Independence
- B. Patient
- C. Liberty
- D. Slavery

**Answer: Option D**

**Solution:**

Safety is opposite of Trouble and Slavery is opposite of Freedom.

### **Sickness : Health :: Happiness : ?**

- A. Medicine
- B. Sorrow
- C. Comfort
- D. Misery

**Answer: Option B**

**Solution:**

Health is opposite of Sickness in same way Sorrow is opposite of Happiness.

### **Bee : Honey :: Cow : ?**

- A. Animal
- B. Water
- C. Grass
- D. Milk

**Answer: Option D**

**Solution:**

Bee gives us Honey in same way Cow Gives us Milk.

### **Plant : Tree :: House : ?**

- A. Skyscraper
- B. Building
- C. Home
- D. Residence

**Answer: Option B**

**Solution:**

Tree is a bigger form of Plant in same way Building is a bigger form of House.

### **Tall : Short :: Treachery : ?**

- A. Respect
- B. Honour
- C. Disgrace
- D. Loyalty

**Answer: Option D**

**Solution:**

Short is opposite of Tall similarly Loyalty is opposite of Treachery

### **Stone : Hard :: Feather : ?**

- A. Soft
- B. White
- C. Bird
- D. Fly

**Answer: Option A**

**Solution:**

Stone is Hard similarly Feather is Soft.

### **Home : Shelter :: School : ?**

- A. Principal
- B. Student
- C. Class
- D. Education

**Answer: Option D**

**Solution:**

Home provides Shelter and School provides Education.

### **ABC : ZYX :: CBA : ?**

- A. XYZ
- B. BCA

C. YZX

D. ZXY

**Answer: Option A**

**Solution:**

CBA is reverse of ABC and XYZ is reverse of ZYX.

### Bunch : Key ::

A. Hound : Pack

B. Team : Competition

C. Beehive : Bee

D. Bouquet : Flower

**Answer: Option D**

**Solution:**

Bunch is collection of Keys and Bouquet is collection of Flowers.

### Profit : Loss ::

A. Success : Failure

B. Rupee : Paisa

C. Whole : Part

D. Multiplication : Addition

**Answer: Option A**

**Solution:**

Profit is antonym of Loss and Success is antonym of Failure.

### Sapling : Tree ::

A. Horse : Mare

B. Student : Teacher

C. Bud : Flower

D. River : Brook

**Answer: Option C**

**Solution:**

Sampling is young Tree and Bud is young Flower

### Supervisor : Worker ::

A. Junior : Senior

B. Superior : Inferior

C. Elder : Younger

D. Debtor : Creditor

E. Officer : Clerk

**Answer: Option E**

**Solution:**

Supervisor supervises the Worker in the same way Officer supervises the Clerk.

**A and B are brothers. C and D are sisters. A's son is D's brother. How is B related to C ?**

A. Father

B. Brother

C. Uncle

D. Grandfather

**Answer: Option C**

**Solution:**

C and D are the daughters of A and B is the uncle of C.

**Timid : Ass :: Cunning : ?**

A. Ant

B. Fox

C. Rabbit

D. Horse

**Answer: Option B**

**Solution:**

Ass is Timid and Fox is Cunning.

**Ecstasy : Gloom ::**

A. Congratulation : Occasion

B. Diligent : Successful

C. Measure : Scale

D. Humiliation : Exaltation

**Answer: Option D**

**Solution:**

Gloom is opposite of Ecstasy in same way Exaltation is opposite of Humiliation.

**Architect : Building :: Sculptor : ?**

A. Museum

B. Stone

C. Chisel

D. Statue

**Answer:** Option D

**Solution:**

Architect constructs **Building** and Sculptor constructs **Statue**.

**123 : 36 :: 221 : ?**

- A. 52
- B. 69
- C. 72
- D. 25

**Answer:** Option D

**Solution:**

$$123 \rightarrow 1+2+3 = 6.$$

$$6^2 = 36.$$

Similarly,

$$221 \rightarrow 2+2+1 = 5.$$

$$5^2 = 25.$$

**24 : 60 :: 120 : ?**

- A. 160
- B. 220
- C. 300
- D. 108

**Answer:** Option C

**Solution:**

$$(24*5)/2 = 60.$$

and

$$(120*5)/2 = 300.$$

**Country : President :: State : ?**

- A. Chief Minister
- B. Prime Minister
- C. Speaker
- D. Governor

**Answer:** Option D

**Solution:**

**President** is the highest officer

of **Country** and **Governor** is the highest officer of **State**

**Each of the following five are alike in certain way so form a group. Which of the following does not belong to that group?**

- A. Mind
- B. Ear
- C. Leg
- D. Hand
- E. Eye

**Answer:** Option A

**Solution:**

Except **Mind**, all other are external part of the human's body.

**Each of the following five are alike in certain way so form a group. Which of the following does not belong to that group?**

- A. Potassium
- B. Magnesium
- C. Nitrogen
- D. Oxygen
- E. Iron

**Answer:** Option D

**Solution:**

Except **oxygen**, All other needs to grow a plant

**Each of the following five are alike in certain way so form a group. Which of the following does not belong to that group?**

- A. Mustard
- B. Ginger
- C. Rapeseed
- D. Sesame
- E. Groundnut

**Answer:** Option B

**Solution:**

Except **Ginger**, all other are oil seeds.

**MONSOON is related to SEASON in the same way APRIL is related to :**

- A. Spring

- A. Autumn
- B. Winter
- C. Month

**Answer: Option D**

**Solution:**

Monsoon is one of the Seasons as April is one of the Months.

### **Mask : Disguise**

- A. Clothes: Necessity
- B. Building: Office
- C. Makeup: Beautify
- D. Radio: News

**Answer: Option C**

**Solution:**

Makeup: Beautify

They have application and its result's relationship.

### **Wind : Hurricane**

- A. Clouds: Rain
- B. Sky : Universe
- C. Thunder : Lighting
- D. Water: Life

**Answer: Option A**

**Solution:**

Strong Winds bring hurricane in same way thick Clouds brings Rain.

### **Find the number that not forms the group.**

- A. 175
- B. 385
- C. 495
- D. 572

**Answer: Option D**

**Solution:**

Except 572, all other are divisible by 5

### **Find the number that not forms the group.**

- A. 3256
- B. 5643

- C. 6424
- D. 7424

**Answer: Option B**

**Solution:**

5643 is the only odd number in the group.

### **Find the number that not forms the group.**

- A. 173
- B. 263
- C. 284
- D. 362

**Answer: Option A**

**Solution:**

Except 173, all the others are middle digit and is the multiple of first digit and last digit.

- A. 3229
- B. 4127
- C. 5218
- D. 7018

**Answer: Option B**

**Solution:**

Except 4127, Sum of all digits of the number gives 16

### **Four of the following five are alike in a certain way and so form a group. Which is the one that does not belong to that group?**

- A. Clutch
- B. Wheel
- C. Break
- D. Car
- E. Gear

**Answer: Option D**

**Solution:**

Except Car, all others are part of Car.

**Banana is related to Fruit in same way as Chrysanthemum is related to :**

- A.  Fruit
- B.  Stem
- C.  Flower
- D.  Root

**Answer: Option C**

**Solution:**

Banana is Fruit in same way, Chrysanthemum is Flower.

**HOSPITAL is related to  
TREATMENT in the same way  
SCHOOL is related to :**

- A.  Education
- B.  Student
- C.  Teacher
- D.  Books

**Answer: Option A**

**Solution:**

HOSPITAL is related to TREATMENT in the same way SCHOOL is related to EDUCATION.

Hospitals provides treatment to Patient in same way Schools give education to Students.

**Each of the following five are alike in certain way so form a group. Which of the following does not belong to that group?**

- A.  Cloth
- B.  Trouser
- C.  Jacket
- D.  Shirt
- E.  T-shirt

**Answer: Option A**

**Solution:**

Trouser, Jacket, shirt and T-shirt are the individual cloth but Cloth is collection of these all.

**Traveller is related to Journey in the same way as a Sailor is related to:**

- A.  Ship
- B.  Crew
- C.  Water
- D.  Voyage
- E.  Navy

**Answer: Option D**

**Solution:**

Travellers go on Journey in Same way Sailors go on Voyage.

**Ink : Pen :: Blood : ?**

- A.  Accident
- B.  Doctor
- C.  Vein
- D.  Donation

**Answer: Option C**

**Solution:**

Ink flows in Pen in same way as Blood flows in Vein.

**TALE : LATE :: ? : CAFE**

- A.  FACE
- B.  CAEF
- C.  CEFA
- D.  FEAC

**Answer: Option A**

**Solution:**

Tale ==> LATE [First and third letter interchanged their positions.]

Thus,

FACE ==> CAFE.

**CUP : LIP :: BIRD : ?**

- A.  BUSH
- B.  GRASS
- C.  FOREST
- D.  BEAK

**Answer:** Option D

**Solution:**

Cup is used to drink something with the help of lips. Similarly birds collects grass with the help of beak to make her nest.

**Flow : River :: Stagnant : ?**

- A. Rain
- B. Stream
- C. Pool
- D. Canal

**Answer:** Option C

**Solution:**

As Water of a River flows similarly water of Pool is Stagnant.

**Paw : Cat :: Hoof : ?**

- A. Lamb
- B. Elephant
- C. Lion
- D. Horse

**Answer:** Option D

**Solution:**

As cat has Paw similarly Horse has Hoof

**Ornithologist : Bird ::  
Archealogist : ?**

- A. Islands
- B. Mediators
- C. Archealogy
- D. Aquatic

**Answer:** Option C

**Solution:**

As Ornithologist is a specialist of Birds similarly Archealogist is a specialist of Archealogy.

**Peacock : India :: Bear : ?**

- A. Australia
- B. America
- C. Russia
- D. England

**Answer:** Option C

**Solution:**

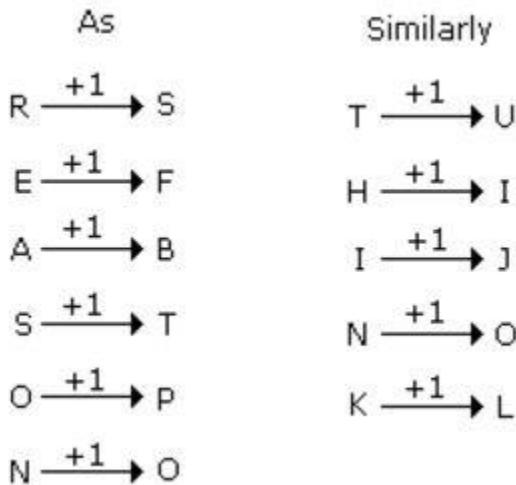
As Peacock is the national bird of India, similarly Bear is the national animal of Russia.

**REASON : SFBTPO :: THINK : ?**

- A. SGHMJ
- B. UIJOL
- C. UHNKI
- D. UJKPM

**Answer:** Option B

**Solution:**



**Carbon : Diamond :: Corundum : ?**

- A. Garnet
- B. Ruby
- C. Pukhraj
- D. Pearl

**Answer:** Option B

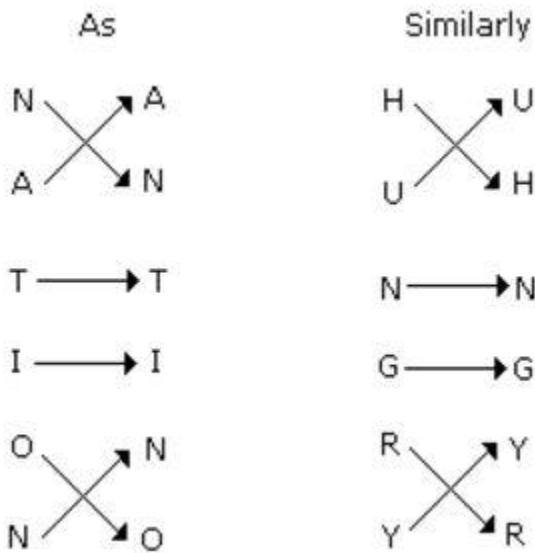
**Solution:**

As Diamond is made of Carbon similarly Ruby is made of Corundum. **NATION : ANTINO :: HUNGRY : ?**

- A. HNUGRY
- B. UHNGYR
- C. YRNGUH
- D. UNHGYR

**Answer:** Option B

**Solution:**



**Architect : Building :: Sculptor : ?**

- A. Museum
- B. Stone
- C. Chisel
- D. Statue

**Answer: Option D**

**Solution:**

As 'Architect' makes 'Building' similarly 'Sculptor' makes 'Statue'.

**Eye : Myopia :: Teeth : ?**

- A. Pyorrhoea
- B. Cataract
- C. Trachoma
- D. Eczema

**Answer: Option A**

**Solution:**

As Myopia is disease of eye similarly pyorrhoea is a disease of teeth.

**Conference : Chairman ::  
Newspaper : ?**

- A. Reporter
- B. Distributor
- C. Printer
- D. Editor

**Answer: Option D**

**Solution:**

As Chairman is the highest authority in a conference similarly Editor is in Newspaper.

**Safe : Secure :: Protect : ?**

- A. Lock
- B. Sure
- C. Guard
- D. Conserve

**Answer: Option C**

**Solution:**

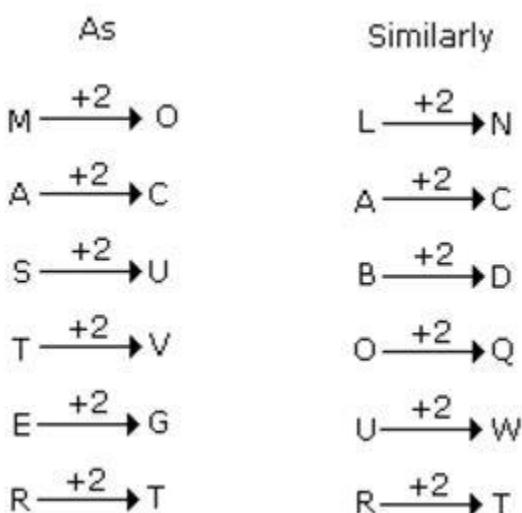
As safe ans secure have same meaning in the same way protect and guard have same meaning.

**Master : OCUVGT :: LABOUR : ?**

- A. NCDQWT
- B. NDERWT
- C. NBERWT
- D. NEDRWT

**Answer: Option A**

**Solution:**



**Microphone : Loud ::  
Microscope : ?**

- A. Elongate
- B. Investigate
- C. Magnify

- D. Examine

**Answer: Option C**

**Solution:**

As Microphone makes sound louder similarly Microscope makes the object magnified.

**Melt : Liquid :: Freeze : ?**

- A. Ice
- B. Condense
- C. Solid
- D. Force

**Answer: Option C**

**Solution:**

As on melting, liquid is formed similarly on freezing solid is formed.

**Conference : Chairman ::  
Newspaper : ?**

- A. Reporter
- B. Distributor
- C. Printer
- D. Editor

**Answer: Option D**

**Solution:**

As Chairman is the highest authority in a conference similarly Editor is in Newspaper.

**Safe : Secure :: Protect : ?**

- A. Lock
- B. Sure
- C. Guard
- D. Conserve

**Answer: Option C**

**Solution:**

As safe ans secure have same meaning in the same way protect and guard have same meaning

**Master : OCUVGT :: LABOUR : ?**

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- B. NDERWT
- C. NBERWT

- D. NEDRWT

**Answer: Option A**

**Solution:**

**Microphone : Loud ::  
Microscope : ?**

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- B. Investigate
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- D. Examine

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As Microphone makes sound louder similarly Microscope makes the object magnified.

**Melt : Liquid :: Freeze : ?**

- A. Ice
- B. Condense
- C. Solid
- D. Force

**Answer: Option C**

**Solution:**

As on melting, liquid is formed similarly on freezing solid is formed.

**Race : Fatigue :: Fast : ?**

- A. Food
- B. Laziness
- C. Hunger
- D. Race

**Answer: Option C**

**Solution:**

As the result of Race is Fatigue similarly the result of Fast is Hunger.

**Peace : Chaos :: Creation : ?**

- A. Build
- B. Construction
- C. Destruction

- D. Manufacture

**Answer: Option C**

**Solution:**

As opposite meaning of peace is chaos similarly opposite meaning of creation is destruction.

**Tiger : Forest :: Otter : ?**

- A. Cage
- B. Sky
- C. Nest
- D. Water

**Answer: Option D**

**Solution:**

As Tiger is found in Forest similarly Otter is found in the water.

**Poles : Magnet :: ? : Battery**

- A. Cells
- B. Power
- C. Terminals
- D. Energy

**Answer: Option C**

**Solution:**

As magnet has poles similarly battery has terminals.

**Cassock : Priest :: ? : Graduate**

- A. Cap
- B. Tie
- C. Coat
- D. Gown

**Answer: Option D**

**Solution:**

A Priest wears cassock while Graduate wears gown.

**Ice : Coldness :: Earth : ?**

- A. Weight
- B. Jungle
- C. Gravitatism
- D. Sea

**Answer: Option C**

**Solution:**

As effect of Ice is coldness similarly the effect of Earth is gravitation.

**Parts : Strap :: Wolf : ?**

- A. Fox
- B. Animal
- C. Wood
- D. Flow

**Answer: Option D**

**Solution:**

## Chapter 6 Statement and Conclusion Rection

**Directions : In each of the following questions a statement is given, followed by two conclusions. Give answer :**

**Statement : If you are a good artist, then we have definitely a job for you.**

**Conclusion :**

- I. You are a good artist.
- II. We are in need of good artist.

**Both I and II follows**

- A. Only conclusion I follows.
- B. Only conclusion II follows.
- C. Either I or II follows.
- D. Neither I or II follows.
- E. Both I and II follows.

**Answer: Option B**

**Solution:**

Conclusion II follows from the statement because in the statement it is given that if you are a good artist then we have definitely a job for you. From this, it is clear that we are in need of a good artist

**Directions :** In each of the following questions a statement is given, followed by two conclusions. Give answer :

**Statement :** Any young who makes dowry as a condition for marriage discredits himself and dishonours womanhood.

**Conclusion :**

- I. Those who take dowry in marriage should be condemned by the society.
- II. Those who do not take dowry in marriage respect womanhood.

- A. Only conclusion I follows.
- B. Only conclusion II follows.
- C. Either I or II follows.
- D. Neither I or II follows.
- E. Both I and II follows.

**Answer:** Option E

**Solution:**

From the statement both the conclusions follow.

**Directions :** In each of the following questions a statement is given, followed by two conclusions. Give answer :

**Statement :** Now-a-days, the sale of television sets of company X has increased.

**Conclusion :**

- I. The sale of television sets of

other company has decreased.  
II. The sale of television sets of company X was nil in past.

- A. Only conclusion I follows.
- B. Only conclusion II follows.
- C. Either I or II follows.
- D. Neither I or II follows.
- E. Both I and II follows.

**Answer:** Option D

**Solution:**

In the statement, nothing is said about the sale of television sets of the other companies. Hence, conclusion I is not valid while the second conclusion is not related to the statement. Hence, it is also not valid.

**Directions :** In each of the following questions a statement is given, followed by two conclusions. Give answer :

**Statement :** The cabinet of state X took certain steps to tackle the milk glut in the state as the cooperative and government dairies failed to use the available milk. - News report.

**Conclusion :**

- I. The milk production of State X is more than its need.
- II. The Government and co-operative dairies in State X are not equipped in terms of resources and technology to handle such excess milk.

- A. Only conclusion I follows.
- B. Only conclusion II follows.

- C. Either I or II follows.
- D. Neither I or II follows.
- E. Both I and II follows.

**Answer:** Option E

**Solution:**

The use of the term 'milk glut' makes I implicit. Also, the fact that the cooperatives and Government dairies failed to use the available milk indicates that they lack the proper infrastructure to handle such quantities of Milk. So, II also Follows.

**Directions : In each of the following questions a statement is given, followed by two conclusions. Give answer :**

**Statement :** Women's organizations in India have welcomed the amendment of the Industrial Employment Rules 1946 to curb sexual harassment at the work place.

**Conclusion :**

I. Sexual harassment of women at work place is more prevalent in India as compared to other developed countries.  
II. Many organizations in India will stop recruiting women to avoid such problems.

- A. Only conclusion I follows.
- B. Only conclusion II follows.
- C. Either I or II follows.
- D. Neither I or II follows.
- E. Both I and II follows.

**Answer:** Option D

**Solution:**

The fact that a certain rule has been more welcomed in a certain country does not imply that the problem

is more prevalent there. So, I does not follows. Also, The amendment seeks to discourage only sexual harassment of women and shall in no way discourage employment of women. So, II does not follow.

**Directions : In each of the following questions a statement is given, followed by two conclusions. Give answer :**

**Statement :** India's economy is depending mainly on forests.

**Conclusion :**

I. Tree should be preserved to improve Indian economy.  
II. India wants only maintenance of forests to improve economic conditions.

- A. Only conclusion I follows.
- B. Only conclusion II follows.
- C. Either I or II follows.
- D. Neither I or II follows.
- E. Both I and II follows.

**Answer:** Option A

**Solution:**

It is mentioned in the statement that India's economy depends mainly on forests. This means that forests should be preserved. So, I follows. But, that only preservation of forests can improve the economy, cannot be said. So, II does not follow.

**Directions : In each of the following questions a statement is given, followed by two conclusions. Give answer :**

**Statement :** Reading maketh a full man, conference a ready man writing an exact man.

**Conclusion :**

- I. Pointed and precise expression comes only through extensive writing.**  
**II. Extensive reading makes a complete man.**

- A. Only conclusion I follows.
- B. Only conclusion II follows.
- C. Either I or II follows.
- D. Neither I or II follows.
- E. Both I and II follows.

**Answer: Option E**

**Solution:**

I follows from the fact that writing makes an exact man. Conclusion II also directly follows from the statement.

- Directions : In each of the following questions a statement is given, followed by two conclusions. Give answer :**

**Statement : Modern man influences his destiny by the choice he makes unlike in the past.**

**Conclusion :**

- I. Earlier there were less options available to them.**  
**II. There was no desire in the past to influence the destiny.**

- A. Only conclusion I follows.
- B. Only conclusion II follows.
- C. Either I or II follows.
- D. Neither I or II follows.
- E. Both I and II follows.

**Answer: Option A**

**Solution:**

Conclusion I is directly related to the statement. Hence, Conclusion I is valid, while the conclusion II is not related to the statement so it is not valid

- Directions : In each of the following questions a statement is given, followed by two conclusions. Give answer :**

**Statement : Most of the Indian States existed before independence.**

**Conclusion :**

- I. Some Indian States existed before independence.**  
**II. Some Indian States did not exist before independence.**

- A. Only conclusion I follows.
- B. Only conclusion II follows.
- C. Either I or II follows.
- D. Neither I or II follows.
- E. Both I and II follows.

**Answer: Option B**

**Solution:**

According to the statement most of the Indian states existed before independence. It means not all the Indian States existed before independence. Hence, II conclusion is logically valid.

- Directions : In each of the following questions a statement is given, followed by two conclusions. Give answer :**

**Statement : Books without knowledge of life are useless..**

**Conclusion :**

**I. All books contain knowledge of life.**

**II. People should try to gain the knowledge of life.**

- A. Only conclusion I follows.
- B. Only conclusion II follows.
- C. Either I or II follows.
- D. Neither I or II follows.
- E. Both I and II follows.

**Answer: Option D**

**Solution:**

None of the conclusion follows from the statement

**Directions : In each of the following questions a statement is given, followed by two conclusions. Give answer :**

**Statement :** Today out of the world population of several thousand million, the majority of men have to live under governments which refuse them personal liberty and the right to dissent.

**Conclusion :**

**I. People are indifferent to personal liberty and the right to dissent.**

**II. People desire personal liberty and the right to dissent.**

- A. Only conclusion I follows.
- B. Only conclusion II follows.
- C. Either I or II follows.
- D. Neither I or II follows.
- E. Both I and II follows.

**Answer: Option B**

**Solution:**

It is mentioned in the statement that most people are forced to live under Governments which refuse them from personal liberty and the right to dissent. This means that they are not indifferent to these rights but have a desire for them. So, only I follows.

**Directions : In each of the following questions a statement is given, followed by two conclusions. Give answer :**

**Statement :** A medical College has started a cell which will conduct counseling workshops in the field of stress management to patients and general public.

**Conclusion :**

**I. The hospital has needed resources to start such activity.**

**II. Patients and general public feel a need to have such cell in the hospital.**

- A. Only conclusion I follows.
- B. Only conclusion II follows.
- C. Either I or II follows.
- D. Neither I or II follows.
- E. Both I and II follows.

**Answer: Option E**

**Solution:**

Since, The hospital has started the activity, it must have been well-equipped for the same. So, I follows. Also, any new activity is started keeping in mind the need for it. So, II also follows.

**Directions : In each of the following questions a statement is given, followed by two conclusions. Give answer :**

**Statement : Fashion is a form of ugliness so intolerable that we have to alter it every six month.**

**Conclusion :**

- I. Fashion designers do not understand the public mind very well.**
- II. The public by and large is highly susceptible to novelty.**

- A. Only conclusion I follows.
- B. Only conclusion II follows.
- C. Either I or II follows.
- D. Neither I or II follows.
- E. Both I and II follows.

**Answer: Option B**

**Solution:**

The statement asserts that people cannot stand any particular trend for long and seek change quite often. So, only II follows.

**Directions : In each of the following questions a statement is given, followed by two conclusions. Give answer :**

**Statement : Until our country achieves economic equality, political freedom and democracy would be meaningless.**

**Conclusion :**

- I. Political freedom and democracy go hand in hand.**
- II. Economic equality leads to real political freedom and democracy.**

- A. Only conclusion I follows.
- B. Only conclusion II follows.
- C. Either I or II follows.
- D. Neither I or II follows.
- E. Both I and II follows.

**Answer: Option B**

**Solution:**

There is nothing mentioned about the relation between political freedom and democracy. So, I does not follow. But II directly follows from the given statement.

**Directions : Each of the following question consists of a statement followed by two arguments I and II. You have to decide which of the arguments is a STRONG arguments and which is a WEAK Argument.**

**Statement : Should new big industries be started in Kolkata ?**

**Arguments :**

- I. Yes. It will create job opportunities.**
- II. No. It will further add the pollution of the city.**

- A. Only argument I is strong.
- B. Only Argument II is strong.
- C. Either I or II is strong.
- D. Neither I nor II is strong.
- E. Both I and II are strong.

**Answer: Option C**

**Solution:**

Opening new industries is advantageous in creating more job opportunities mean while it further

increases the pollution of the city. So, either of arguments is strong.

**Directions : Each of the following question consists of a statement followed by two arguments I and II. You have to decide which of the arguments is a STRONG arguments and which is a WEAK Argument.**

**Statement :** Should there be uniform for students of the colleges in India as in the schools ?

**Arguments :**

- I. Yes, this will improve the ambiance of the colleges as all students will be decently dressed.
- II. No, the college students should not be regimented and they should be left to choose their clothes for coming to the college.

- A. Only argument I is strong.
- B. Only Argument II is strong.
- C. Either I or II is strong.
- D. Neither I nor II is strong.
- E. Both I and II are strong.

**Answer:** Option B

**Solution:**

After being in strict discipline and following a formal dress code of the school for so many years, the students must be granted some liberty in college life, as they have to take on the responsibilities of life, next. Besides, schools adopt uniforms to take care of the security of the child - an aspect which doesn't matter much in the Colleges. So, argument II holds strong. Also, the environment of the college

depend on the students' dedication and etiquette and not on their uniforms. So, argument I is vague.

Chapter 7 cause and effect

- A. If statement I is the cause and statement II is its effect.
- B. If statement II is the cause and statement I is its effect.
- C. If both the statements I and II are independent causes.
- D. If both the statements I and II are effects of independent causes.
- E. If both the statement I and II are effects of some common cause.

**Answer:** Option B

**Solution:**

As the Central Government faced financial loss on accounts of giving rebate on farming for the last few years, therefore, they declared to finish the rebate on farming. Hence, II is the cause while I is the effect

**Direction : Two statements I and II are given. These statement may be either independent causes or may be effects of independent causes or a common cause. One of these statements may be the effect of the other statements. Read both the statements and decide which of the following answer choice correctly depicts the relationship between these two statements. Mark answer :**

- I. Many people visited the religious place during weekend.
- II. Few people visited the religious place during the week days.

- A. If statement I is the cause and statement II is its effect.
- B. If statement II is the cause and statement I is its effect.
- C. If both the statements I and II are independent causes
- D. If both the statements I and II are effects of independent causes.
- E. If both the statements I and II are effects of some common cause.

**Answer: Option E**

**Solution:**

Clearly, lesser number of people is visiting a place during the week days and more people are visiting during the weekend, both imply events that go together, and must have happened due to a common cause such as, it being a holiday during the weekend.

**Direction : Two statements I and II are given. These statement may be either independent causes or may be effects of independent causes or a common cause. One of these statements may be the effect of the other statements. Read both the statements and decide which of the following answer choice correctly depicts the relationship between these two statements. Mark answer :**

**I. Ram's father was ill.  
II. Ram brought medicine after consulting the doctor.**

- A. If statement I is the cause and statement II is its effect.
- B. If statement II is the cause and statement I is its effect.

- C. If both the statements I and II are independent causes.
- D. If both the statements I and II are effects of independent causes.
- E. If both the statements I and II are independent causes.

**Answer: Option A**

**Solution:**

As Ram's father was ill so he brought medicine on the advice of doctor. Therefore, Statement I is cause and II is the effect

**Direction : Two statements I and II are given. These statement may be either independent causes or may be effects of independent causes or a common cause. One of these statements may be the effect of the other statements. Read both the statements and decide which of the following answer choice correctly depicts the relationship between these two statements. Mark answer :**

- I. The price of vegetables have been increased considerably during this summer.
- II. There are tremendous increase in the temperature during this summer thereby damaging crops greatly.

- A. If statement I is the cause and statement II is its effect.
- B. If statement II is the cause and statement I is its effect.
- C. If both the statements I and II are independent causes.

D. If both the statements I and II are effects of independent causes.

E. If both the statement I and II are effects of some common cause.

**Answer: Option B**

**Solution:**

damage of crops due to high temperature may have resulted in a short supply of vegetables and hence an increase in their prices. Thus, statement II is cause and I is its effect.

**Direction : Two statements I and II are given. These statement may be either independent causes or may be effects of independent causes or a common cause. One of these statements may be the effect of the other statements. Read both the statements and decide which of the following answer choice correctly depicts the relationship between these two statements. Mark answer :**

**I. The prices of petrol and diesel in the domestic market have remained unchanged for the past few months.**

**II. The crude oil prices in the international market have gone up substantially in the last few month.**

A. If statement I is the cause and statement II is its effect.

B. If statement II is the cause and statement I is its effect.

C. If both the statements I and II are independent causes.

D. If both the statements I and II are effects of independent causes.

E. If both the statement I and II are effects of some common cause.

**Answer: Option D**

**Solution:**

The prices of petrol and diesel in domestic market remains same in last few month while Price of crude oil have been increased in international market this mean that these are baked by independent causes.

**Direction : Two statements I and II are given. These statement may be either independent causes or may be effects of independent causes or a common cause. One of these statements may be the effect of the other statements. Read both the statements and decide which of the following answer choice correctly depicts the relationship between these two statements. Mark answer :**

**I. India has surpassed the value of tea exports this year over all the earlier years due to an increase in demand for quality tea in the European market.**

**II. There is an increase in demand of coffee in the domestic market during the last two years.**

A. Statement I is the cause and statement II is its effect

B. Statement II is the cause and statement I is its effect

- C. Both the statements I and II are independent causes
- D. Both the statements I and II are effects of independent causes
- E. Both the statements I and II are effects of some common cause

**Answer: Option C**

**Solution:**

The two statements discuss two separate statistical and generalised results.

**Direction : Two statements I and II are given. These statement may be either independent causes or may be effects of independent causes or a common cause. One of these statements may be the effect of the other statements. Read both the statements and decide which of the following answer choice correctly depicts the relationship between these two statements. Mark answer :**

- I. There is unprecedented increase in the number of young unemployed in comparison to the previous year.**
- II. A large number of candidates submitted applications against an advertisement for the post of manager issued by a bank.**

- A. Statement I is the cause and statement II is its effect
- B. Statement II is the cause and statement I is its effect
- C. Both the statements I and II are independent causes

- D. Both the statements I and II are effects of independent causes
- E. Both the statements I and II are effects of some common cause

**Answer: Option A**

**Solution:**

An increase in the number of unemployed youth is bound to draw in huge crowds for a single vacancy.

**Direction : Two statements I and II are given. These statement may be either independent causes or may be effects of independent causes or a common cause. One of these statements may be the effect of the other statements. Read both the statements and decide which of the following answer choice correctly depicts the relationship between these two statements. Mark answer :**

- I. The police authority has recently caught a group of house breakers.**
- II. The citizens group in the locality have started night vigil in the area.**

- A. Statement I is the cause and statement II is its effect
- B. Statement II is the cause and statement I is its effect
- C. Both the statements I and II are independent causes
- D. Both the statements I and II are effects of independent causes
- E. Both the statements I and II are effects of some common cause

**Answer: Option E**

**Solution:**

Both the statements are clearly backed by a common cause, which is clearly an increase in the number of thefts in the locality

**Direction : Two statements I and II are given. These statement may be either independent causes or may be effects of independent causes or a common cause. One of these statements may be the effect of the other statements. Read both the statements and decide which of the following answer choice correctly depicts the relationship between these two statements. Mark answer :**

**I. Majority of the students in the college expressed their opinion against the college authority's decision to break away from the university and become autonomous.**

**II. The university authorities have expressed their inability to provide grants to its constituent colleges.**

- A. Statement I is the cause and statement II is its effect
- B. Statement II is the cause and statement I is its effect
- C. Both the statements I and II are independent causes
- D. Both the statements I and II are effects of independent causes
- E. Both the statements I and II are effects of some common cause

**Answer: Option B**

**Solution:**

Clearly, the university's decision to refuse grant to the colleges must have triggered the college authority to become autonomous.

**Direction : Two statements I and II are given. These statement may be either independent causes or may be effects of independent causes or a common cause. One of these statements may be the effect of the other statements. Read both the statements and decide which of the following answer choice correctly depicts the relationship between these two statements. Mark answer :**

**I. The literacy rate in the district has been increasing for the last four years.**

**II. The district administration has conducted extensive training programme for the workers involved in the literacy drive.**

- A. Statement I is the cause and statement II is its effect
- B. Statement II is the cause and statement I is its effect
- C. Both the statements I and II are independent causes
- D. Both the statements I and II are effects of independent causes
- E. Both the statements I and II are effects of some common cause

**Answer: Option B**

**Solution:**

Clearly, the increase in the literacy rate may be attributed directly to the stringent efforts of the district administration in this direction.

- A. Statement I is the cause and statement II is its effect
- B. Statement II is the cause and statement I is its effect
- C. Both the statements I and II are independent causes
- D. Both the statements I and II are effects of independent causes
- E. Both the statements I and II are effects of some common cause

**Answer:** Option A

**Solution:**

It seems quite evident that the parents have instructed their wards to abstain from private tuitions on Sundays and attend special classes organised by the school.

**Direction : Two statements I and II are given. These statement may be either independent causes or may be effects of independent causes or a common cause. One of these statements may be the effect of the other statements. Read both the statements and decide which of the following answer choice correctly depicts the relationship between these two statements. Mark answer :**

- I. The Government has imported large quantities of sugar as per trade agreement with other countries.
- II. The prices of sugar in the

**domestic market have fallen sharply in the recent months.**

- A. Statement I is the cause and statement II is its effect
- B. Statement II is the cause and statement I is its effect
- C. Both the statements I and II are independent causes
- D. Both the statements I and II are effects of independent causes
- E. Both the statements I and II are effects of some common cause

**Answer:** Option A

**Solution:**

The increase in supply always triggers a reduction in the prices.

**Direction : Two statements I and II are given. These statement may be either independent causes or may be effects of independent causes or a common cause. One of these statements may be the effect of the other statements. Read both the statements and decide which of the following answer choice correctly depicts the relationship between these two statements. Mark answer :**

- I. There is sharp decline in the production of oil seeds this year.
- II. The Government has decided to increase the import quantum of edible oil.

- A. Statement I is the cause and statement II is its effect

- B. Statement II is the cause and statement I is its effect
- C. Both the statements I and II are independent causes
- D. Both the statements I and II are effects of independent causes
- E. Both the statements I and II are effects of some common cause

**Answer: Option A**

**Solution:**

A sharp decline in oilseed production is bound to reduce oil supply and import of oil is the only means to restore the essential supply

**Direction : Two statements I and II are given. These statement may be either independent causes or may be effects of independent causes or a common cause. One of these statements may be the effect of the other statements. Read both the statements and decide which of the following answer choice correctly depicts the relationship between these two statements. Mark answer :**

- I. The private medical colleges have increased the tuition fees in the current year by 200 per cent over the last year's fees to meet the expenses.**
- II. The Government medical colleges have not increased their fees in spite of price escalation.**

- A. Statement I is the cause and statement II is its effect

- B. Statement II is the cause and statement I is its effect
- C. Both the statements I and II are independent causes
- D. Both the statements I and II are effects of independent causes
- E. Both the statements I and II are effects of some common cause

**Answer: Option C**

**Solution:**

The increase in the fees of the private colleges and there being no increase in the same in Government colleges seem to be policy matters undertaken by the individual decisive boards at the two levels.

**Direction : Two statements I and II are given. These statement may be either independent causes or may be effects of independent causes or a common cause. One of these statements may be the effect of the other statements. Read both the statements and decide which of the following answer choice correctly depicts the relationship between these two statements. Mark answer :**

- I. Large number of people living in the low-lying areas has been evacuated during the last few days to safer places.**
- II. The Government has rushed in relief supplies to the people living in the affected areas.**

- A. Statement I is the cause and statement II is its effect
- B. Statement II is the cause and statement I is its effect

- C. Both the statements I and II are independent causes
- D. Both the statements I and II are effects of independent causes
- E. Both the statements I and II are effects of some common cause

**Answer: Option E**

**Solution:**

Evacuating low-lying areas and rushing in relief to the affected areas clearly indicates that floods have occurred in the area

**Direction : Two statements I and II are given. These statement may be either independent causes or may be effects of independent causes or a common cause. One of these statements may be the effect of the other statements. Read both the statements and decide which of the following answer choice correctly depicts the relationship between these two statements. Mark answer :**

- I. It is the aim of the city's civic authority to get the air pollution reduced by 20% in the next two months.
- II. The number of asthma cases in the city is constantly increasing.

- A. Statement I is the cause and statement II is its effect
- B. Statement II is the cause and statement I is its effect
- C. Both the statements I and II are independent causes

- D. Both the statements I and II are effects of independent causes
- E. Both the statements I and II are effects of some common cause

**Answer: Option B**

**Solution:**

The increase in number of asthma cases must have alerted the authorities to take action to control air pollution that triggers the disease.

**Direction : Two statements I and II are given. These statement may be either independent causes or may be effects of independent causes or a common cause. One of these statements may be the effect of the other statements. Read both the statements and decide which of the following answer choice correctly depicts the relationship between these two statements. Mark answer :**

- I. The local co-operative credit society has decided to stop giving loans to farmers with immediate effect.
- II. A large number of credit society members have withdrawn major part of their deposits from the credit society.

- A. Statement I is the cause and statement II is its effect
- B. Statement II is the cause and statement I is its effect
- C. Both the statements I and II are independent causes

D. Both the statements I and II are effects of independent causes

E. Both the statements I and II are effects of some common cause

**Answer: Option B**

**Solution:**

Clearly, withdrawal of funds by society members is bound to reduce the lending power of the society.

**Direction : Two statements I and II are given. These statement may be either independent causes or may be effects of independent causes or a common cause. One of these statements may be the effect of the other statements. Read both the statements and decide which of the following answer choice correctly depicts the relationship between these two statements. Mark answer :**

I. The employees of the biggest bank in the country have given an indefinite strike call starting from third of the next month.

II. The employees of the Central Government have withdrawn their week long demonstrations.

A. Statement I is the cause and statement II is its effect

B. Statement II is the cause and statement I is its effect

C. Both the statements I and II are independent causes

D. Both the statements I and II are effects of independent causes

E. Both the statements I and II are effects of some common cause

**Answer: Option D**

**Solution:**

The employees of a bank going on strike and the government employees calling off their protest seem to be two independent events that might have been triggered by individual causes.

**Direction : Two statements I and II are given. These statement may be either independent causes or may be effects of independent causes or a common cause. One of these statements may be the effect of the other statements. Read both the statements and decide which of the following answer choice correctly depicts the relationship between these two statements. Mark answer :**

I. Police resorted to lathi-charge to disperse the unlawful gathering of large number of people.

II. The citizens' forum called a general strike in protest against the police atrocities.

A. Statement I is the cause and statement II is its effect

B. Statement II is the cause and statement I is its effect

C. Both the statements I and II are independent causes

D. Both the statements I and II are effects of independent causes

E. Both the statements I and II are effects of some common cause

**Answer:** Option B

**Solution:**

Clearly, the people's mass protest against the police might have instigated the latter to indulge in lathi-charge to disperse the mob.

**Direction : Two statements I and II are given. These statement may be either independent causes or may be effects of independent causes or a common cause. One of these statements may be the effect of the other statements. Read both the statements and decide which of the following answer choice correctly depicts the relationship between these two statements. Mark answer :**

- I. Majority of the citizens in the locality belongs to higher income group.**
- II. The sales in the local super market are comparatively much higher than in other localities.**

- A. Statement I is the cause and statement II is its effect
- B. Statement II is the cause and statement I is its effect
- C. Both the statements I and II are independent causes
- D. Both the statements I and II are effects of independent causes
- E. Both the statements I and II are effects of some common cause

**Answer:** Option A

**Solution:**

The comparatively higher sales in a particular locality are indicative of the high paying capacity of the residents of that locality.

**Direction : Two statements I and II are given. These statement may be either independent causes or may be effects of independent causes or a common cause. One of these statements may be the effect of the other statements. Read both the statements and decide which of the following answer choice correctly depicts the relationship between these two statements. Mark answer :**

- I. Police resorted to lathi-charge to disperse the unlawful gathering of large number of people.**
- II. The citizens' forum called a general strike in protest against the police atrocities.**

- A. Statement I is the cause and statement II is its effect.
- B. Statement II is the cause and statement I is its effect.
- C. Both the statements I and II are independent causes.
- D. Both the statements I and II are effects of independent causes.
- E. Both the statements I and II are effects of some common cause.

**Answer:** Option A

**Solution:**

As, police resorted to lathi-charge to disperse the unlawful gathering of large number of people, the citizens forum called a general strike against the police atrocities.

**Direction : Two statements I and II are given. These**

**statement may be either independent causes or may be effects of independent causes or a common cause. One of these statements may be the effect of the other statements. Read both the statements and decide which of the following answer choice correctly depicts the relationship between these two statements. Mark answer :**

- I. The farmers have decided against selling their Kharif crops to the Government agencies.**
- II. The Government has reduced the procurement price of Kharif crops starting from the last month to the next six months.**

- A. Statement I is the cause and statement II is its effect.
- B. Statement II is the cause and statement I is its effect.
- C. Both the statements I and II are independent causes.
- D. Both the statements I and II are effects of independent causes.
- E. Both the statements I and II are effects of some common cause.

**Answer: Option B**

**Solution:**

Since the government has reduced the procurement price of Kharif crops starting from the last months to the next six months, therefore, the farmers have decided against selling their Kharif crops to the Government agencies

**Direction : Two statements I and II are given. These**

**statement may be either independent causes or may be effects of independent causes or a common cause. One of these statements may be the effect of the other statements. Read both the statements and decide which of the following answer choice correctly depicts the relationship between these two statements. Mark answer :**

- I. Many people visited the religious place during the weekend.**
- II. Few people visited the religious place during the week days.**

- A. Statement I is the cause and statement II is its effect.
- B. Statement II is the cause and statement I is its effect.
- C. Both the statements I and II are independent causes.
- D. Both the statements I and II are effects of independent causes.
- E. Both the statements I and II are effects of some common cause.

**Answer: Option E**

**Solution**

Both the statements I and II are the effects of some common cause.

**59.**

**Direction : Two statements I and II are given. These statement may be either independent causes or may be effects of independent causes**

or a common cause. One of these statements may be the effect of the other statements. Read both the statements and decide which of the following answer choice correctly depicts the relationship between these two statements. Mark answer :

- I. All the schools in the area had to be kept closed for most part of the week.**
- II. Many parents have withdrawn their children from the local schools.**

- A. Statement I is the cause and statement II is its effect.
- B. Statement II is the cause and statement I is its effect.
- C. Both the statements I and II are independent causes.
- D. Both the statements I and II are effects of independent causes.
- E. Both the statements I and II are effects of some common cause.

**Answer:** Option E

**Solution:**

Both the statements are effects of some common cause.

**Direction : Two statements I and II are given. These statement may be either independent causes or may be effects of independent causes or a common cause. One of these statements may be the effect of the other statements. Read both the statements and decide which of the following**

answer choice correctly depicts the relationship between these two statements. Mark answer :

- I. The literacy rate in the district has been increasing for the last four years.**
- II. The district administration has conducted extensive training programme for the workers involved in the literacy drive.**

- A. Statement I is the cause and statement II is its effect.
- B. Statement II is the cause and statement I is its effect.
- C. Both the statements I and II are independent causes.
- D. Both the statements I and II are effects of independent causes.
- E. Both the statements I and II are effects of some common cause.

**Direction : Two statements I and II are given. These statement may be either independent causes or may be effects of independent causes or a common cause. One of these statements may be the effect of the other statements. Read both the statements and decide which of the following answer choice correctly depicts the relationship between these two statements. Mark answer :**

- I. Many people in the area are reported to be suffering from**

**Malaria.**

**II. Private Medical Practitioners in the area have decided to close their clinics for few days.**

- A. Statement I is the cause and statement II is its effect.
- B. Statement II is the cause and statement I is its effect.
- C. Both the statements I and II are independent causes.
- D. Both the statements I and II are effects of independent causes.
- E. Both the statements I and II are effects of some common cause.

**Answer: Option D**

**Solution:**

Both the statements I and II are effects of independent causes. Because spreading malaria or to be suffering from malaria may be due to mosquitoes or dirtiness. But the decision of private medical practitioners to close the clinics may be due to other causes.

**Direction : Two statements I and II are given. These statement may be either independent causes or may be effects of independent causes or a common cause. One of these statements may be the effect of the other statements. Read both the statements and decide which of the following answer choice correctly depicts the relationship between these two statements. Mark answer :**

**I. Rural and semi-urban areas in the country have been suffering due to load-shedding for quite some time.**

**II. If the Government is not able to overcome the power crisis, load-shedding will be extended even to the urban areas.**

- A. Statement I is the cause and statement II is its effect.
- B. Statement II is the cause and statement I is its effect.
- C. Both the statements I and II are independent causes.
- D. Both the statements I and II are effects of independent causes.
- E. Both the statements I and II are effects of some common cause.

**Answer: Option E**

**Solution:**

If certain preventive measures are practiced at the rural and semi urban areas the problem will be solved. But if the same is not practiced even at the cities the problem may roll into the city also, so the two effects are of some common cause.

**Direction : Two statements I and II are given. These statement may be either independent causes or may be effects of independent causes or a common cause. One of these statements may be the effect of the other statements. Read both the statements and decide which of the following answer choice correctly depicts the relationship between these two statements. Mark answer :**

**I. The Government has increased rates of petrol and diesel by 10% from the immediate effect.**

## **II. Oil producing countries have decided to increase 10% of production on crude oil from the last quarter.**

- A. Statement I is the cause and statement II is its effect.
- B. Statement II is the cause and statement I is its effect.
- C. Both the statements I and II are independent causes.
- D. Both the statements I and II are effects of independent causes.
- E. Both the statements I and II are effects of some common cause.

**Answer: Option D**

**Solution:**

Both statements I and II are the effects of independent causes.

**Direction : Two statements I and II are given. These statement may be either independent causes or may be effects of independent causes or a common cause. One of these statements may be the effect of the other statements. Read both the statements and decide which of the following answer choice correctly depicts the relationship between these two statements. Mark answer :**

- I. The vegetable prices in the local market have increases manifold during the past few days.
- II. Incessant rains have created flood like situation in most rural parts of the State.

- A. Statement I is the cause and statement II is its effect.
- B. Statement II is the cause and statement I is its effect.
- C. Both the statements I and II are independent causes.
- D. Both the statements I and II are effects of independent causes.
- E. Both the statements I and II are effects of some common cause.

**Answer: Option B**

**Solution:**

The transportation gets effect due to the flood created by incessant rains in the most rural parts of State.

Therefore, on account of this, it is possible to increase the vegetable prices in the local market.

**Direction : Two statements I and II are given. These statement may be either independent causes or may be effects of independent causes or a common cause. One of these statements may be the effect of the other statements. Read both the statements and decide which of the following answer choice correctly depicts the relationship between these two statements. Mark answer :**

- I. Police had resorted to lathi-charge to disperse the unruly mob from the civic headquarters.
- II. The civic administration has recently hiked the property tax of the residential buildings by about 30 percent.

- A. Statement I is the cause and statement II is its effect.
- B. Statement II is the cause and statement I is its effect.
- C. Both the statements I and II are independent causes.
- D. Both the statements I and II are effects of independent causes.
- E. Both the statements I and II are effects of some common cause.

related to hibernation, neither completes the analogy. (Choice c) is incorrect because sleep and dream are not synonymous.

### **Window is to pane as book is to**

- A. novel
- B. glass
- C. cover
- D. page

**Answer: Option D**

**Solution:**

A window is made up of panes, and a book is made up of pages. The answer is not (choice a) because a novel is a type of book. The answer is not (choice b) because glass has no relationship to a book. (Choice c) is incorrect because a cover is only one part of a book; a book is not made up of covers

### **Cup is to coffee as bowl is to**

- A. dish
- B. soup
- C. spoon
- D. food

**Answer: Option B**

**Solution:**

Coffee goes into a cup and soup goes into a bowl. Choices a and c are incorrect because they are other utensils. The answer is not choice d because the word food is too general.

### **Yard is to inch as quart is to**

- A. gallon
- B. ounce
- C. milk
- D. liquid

**Answer: Option B**

**Solution:**

A yard is a larger measure than an inch (a yard contains 36 inches). A quart is a larger measure than an ounce (a quart contains 32 ounces). Gallon (choice a) is incorrect because it is larger than a quart. Choices c and d are incorrect because they are not units of measurement.

## **Chapter 8 analogies**

### **Odometer is to mileage as compass is to**

- A. speed
- B. hiking
- C. needle
- D. direction

**Answer: Option D**

**Solution:**

An odometer is an instrument used to measure mileage. A compass is an instrument used to determine direction. Choices a, b, and c are incorrect because none is an instrument.

### **Marathon is to race as hibernation is to**

- A. winter
- B. bear
- C. dream
- D. sleep

**Answer: Option D**

**Solution:**

A marathon is a long race and hibernation is a lengthy period of sleep. The answer is not choice a or b because even though a bear and winter are

**Elated is to despondent as enlightened is to**

- A. aware
- B. ignorant
- C. miserable
- D. tolerant

**Answer:** Option B

**Solution:**

Elated is the opposite of despondent; enlightened is the opposite of ignorant

**Optimist is to cheerful as pessimist is to**

- A. gloomy
- B. mean
- C. petty
- D. helpful

**Answer:** Option A

**Solution:**

An optimist is a person whose outlook is cheerful. A pessimist is a person whose outlook is gloomy. The answer is not (choice b) because a pessimist does not have to be mean. (Choices c) and d are incorrect because neither adjective describes the outlook of a pessimist

**Reptile is to lizard as flower is to**

- A. petal
- B. stem
- C. daisy
- D. alligator

**Answer:** Option C

**Solution:**

A lizard is a type of reptile; a daisy is a type of flower. Choices a and b are incorrect because a petal and a stem are parts of a flower, not types of flowers. (Choice d) is incorrect because an alligator is another type of reptile, not a type of flower

**Play is to actor as concert is to**

- A. symphony

- B. musician
- C. piano
- D. percussion

**Answer:** Option B

**Solution:**

An actor performs in a play. A musician performs at a concert. Choices a, c, and d are incorrect because none is people who perform

**Sponge is to porous as rubber is to**

- A. massive
- B. solid
- C. elastic
- D. inflexible

**Answer:** Option C

**Solution:**

A sponge is a porous material. Rubber is an elastic material. (Choice a) is incorrect because rubber would not generally be referred to as massive. The answer is not (choice b) because even though rubber is a solid, its most noticeable characteristic is its elasticity. Choice d is incorrect because rubber has flexibility.

**Careful is to cautious as boastful is to**

- A. arrogant
- B. humble
- C. joyful
- D. suspicious

**Answer:** Option A

**Solution:**

Careful and cautious are synonyms (they mean the same thing). Boastful and arrogant are also synonyms. The answer is not (choice b) because humble means the opposite of boastful. The answer is not choice c or d because neither means the same as boastful.

**Pen is to poet as needle is to**

- A. thread
- B. button

- C. sewing
- D. tailor

**Answer: Option D**

**Solution:**

A pen is a tool used by a poet. A needle is a tool used by a tailor. The answer is not choice a, b, or c because none is a person and therefore cannot complete the analogy.

### **Secretly is to openly as silently is to**

- A. scarcely
- B. impolitely
- C. noisily
- D. quietly

**Answer: Option C**

**Solution:**

Secretly is the opposite of openly, and silently is the opposite of noisily. Choices a and b are clearly not the opposites of silently. (Choice d) means the same thing as silently

### **Embarrassed is to humiliated as frightened is to**

- A. terrified
- B. agitated
- C. courageous
- D. reckless

**Answer: Option A**

**Solution:**

If someone has been humiliated, they have been greatly embarrassed. If someone is terrified, they are extremely frightened. The answer is not choice b because an agitated person is not necessarily frightened. Choices c and d are incorrect because neither word expresses a state of being frightened.

### **Pride is to lion as shoal is to**

- A. teacher
- B. student
- C. self-respect
- D. fish

**Answer: Option D**

**Solution:**

A group of lions is called a pride. A group of fish swim in a shoal. Teacher (choice a) and student (choice b) refer to another meaning of the word school. The answer is not (choice c) because self-respect has no obvious relationship to this particular meaning of school.

### **Artist is to painting as senator is to**

- A. attorney
- B. law
- C. politician
- D. constituents

**Answer: Option B**

**Solution:**

An artist makes paintings; a senator makes laws. The answer is not choice a because an attorney does not make laws and a senator is not an attorney. Choice c is incorrect because a senator is not a politician. Constituents (choice d) is also incorrect because a senator serves his or her constituents.

### **Exercise is to gym as eating is to**

- A. food
- B. dieting
- C. fitness
- D. restaurant

**Answer: Option D**

**Solution:**

A gym is a place where people exercise. A restaurant is a place where people eat. Food (choice a) is not the answer because it is something people eat, not a place or location where they eat. The answer is not choice b or c because neither represents a place where people eat

### **Candid is to indirect as honest is to**

- A. frank
- B. wicked
- C. truthful
- D. untruthful

**Answer:** Option D

**Solution:**

Candid and indirect refer to opposing traits. Honest and untruthful refer to opposing traits. The answer is not choice a because frank means the same thing as candid. Wicked (choice b) is incorrect because even though it refers to a negative trait, it does not mean the opposite of honest. (Choice c) is incorrect because truthful and honest mean the same thing

### **Guide is to direct as reduce is to**

- A. decrease
- B. maintain
- C. increase
- D. preserve

**Answer:** Option A

**Solution:**

Guide and direct are synonyms, and reduce and decrease are synonyms. The answer is not choice b or d because neither means the same as reduce. (Choice c) is incorrect because increase is the opposite of reduce

### **Oar is to rowboat as foot is to**

- A. running
- B. sneaker
- C. skateboard
- D. jumping

**Answer:** Option C

**Solution:**

An oar puts a rowboat into motion. A foot puts a skateboard into motion. The answer is not choice a because running is not an object that is put into motion by a foot. Sneaker (choice b) is incorrect because it is something worn on a foot. Jumping (choice d) is incorrect because although you do need feet to jump, jumping is not an object that is put into motion by means of a foot.

### **Artist is to painting as senator is to**

- A. attorney
- B. law

- C. politician

- D. constituents

**Answer:** Option B

**Solution:**

An artist makes paintings; a senator makes laws. The answer is not choice a because an attorney does not make laws and a senator is not an attorney. Choice c is incorrect because a senator is not a politician. Constituents (choice d) is also incorrect because a senator serves his or her constituents.

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### **Guide is to direct as reduce is to**

- A. decrease
- B. maintain
- C. increase
- D. preserve

**Answer:** Option A

**Solution:**

Guide and direct are synonyms, and reduce and decrease are synonyms. The answer is not choice b or d because neither means the same as reduce. (Choice c) is incorrect because increase is the opposite of reduce.

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**The words in the bottom row are related in the same way as the words in the top row. For each item, find the word that completes the bottom row of words.**

Candle	lamp	floodlight
Hut	cottage	?

- A. tent
- B. city
- C. dwelling
- D. house

**Answer:** Option D

**Solution:**

Above the line, the relationship shows a progression of sources of light. The relationship below the line shows a progression of types of housing, from smallest to largest. (Choice a) is incorrect because a tent is smaller than a house. Choices b and c are wrong because they are not part of the progression.

**The words in the bottom row are related in the same way as the words in the top row. For each item, find the word that completes the bottom row of words.**

daisy	flower	plant
bungalow	house	?

- A. building
- B. cottage
- C. apartment
- D. city

**Answer:** Option A

**Solution:**

Above the line, the relationship is as follows: A daisy is a type of flower, and a flower is a type of plant. Below the line, the relationship is as follows: A bungalow is a type of house, and a house is a type of building.

**The words in the bottom row are related in the same way as the words in the top row. For each item, find the word that completes the bottom row of words.**

palette	easel	brush
textbook	lesson plan	?

- A. artist
- B. teacher
- C. report card
- D. paint

**Answer:** Option C

**Solution:**

The objects above the line are all things used by an artist. The objects below the line are all things used by a teacher.

**The words in the bottom row are related in the same way as the words in the top row. For each item, find the word that completes the bottom row of words.**

rule	command	dictate
doze	sleep	?

- A. snore
- B. govern
- C. awaken
- D. hibernate

**Answer:** Option D

**Solution:**

The words above the line show a continuum: Command is more extreme than rule, and dictate is more extreme than command. Below the line, the continuum is as follows: Sleep is more than doze, and hibernate is more than sleep. The other choices are not related in the same way.

**The words in the bottom row are related in the same way as the words in the top row. For each item, find the word that completes the bottom row of words.**

apples	fruit	supermarket
novel	book	?

- A. bookstore
- B. magazine
- C. vegetable
- D. shopping

**Answer:** Option A

**Solution:**

The relationship above the line is as follows; apples are a kind of fruit; fruit is sold in a supermarket. Below the line, the relationship is: a novel is a kind of book; books are sold in a bookstore.

**The words in the bottom row are related in the same way as the words in the top row. For each item, find the word that completes the bottom row of words.**

Candle	lamp	floodlight
Hut	cottage	?

- A. tent
- B. city
- C. dwelling
- D. house

**Answer:** Option D

**Solution:**

Above the line, the relationship shows a progression of sources of light. The relationship below the line shows a progression of types of housing, from smallest to largest. (Choice a) is incorrect because a tent is smaller than a house. Choices b and c are wrong because they are not part of the progression.

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- D. city

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- A. artist
- B. teacher
- C. report card
- D. paint

**Answer: Option C**

**Solution:**

The objects above the line are all things used by an artist. The objects below the line are all things used by a teacher.

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- B. govern
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- D. hibernate

**Answer: Option D**

**Solution:**

The words above the line show a continuum: Command is more extreme than rule, and dictate is more extreme than command. Below the line, the continuum is as follows: Sleep is more than doze, and hibernate is more than sleep. The other choices are not related in the same way.

**The words in the bottom row are related in the same way as the words in the top row. For each item, find the word that completes the bottom row of words.**

apples	fruit	supermarket
novel	book	?

- A. bookstore
- B. magazine
- C. vegetable
- D. shopping

**Answer: Option A**

**Solution:**

The relationship above the line is as follows; apples are a kind of fruit; fruit is sold in a supermarket. Below the line, the relationship is: a novel is a kind of book; books are sold in a bookstore.

**The words in the bottom row are related in the same way as the words in the top row. For each item, find the word that completes the bottom row of words.**

walk	skip	run
toss	pitch	?

- A. swerve
- B. hurl
- C. jump
- D. dance

**Answer: Option B**

**Solution:**

Walk, skip, and run represent a continuum of movement: Skipping is faster than walking; running is faster than skipping. Below the line, the continuum is about throwing: Pitch is faster than toss; hurl is faster than pitch.

**The words in the bottom row are related in the same way as the words in the top row. For each item, find the word that completes the bottom row of words.**

meal	banquet	feast
shelter	palace	?

- A. mansion
- B. hallway
- C. protection
- D. haven

**Answer:** Option A

**Solution:**

A banquet and a feast are both large meals; a palace and a mansion are both large places of shelter.

**The words in the bottom row are related in the same way as the words in the top row. For each item, find the word that completes the bottom row of words.**

honeybee	angel	bat
kangaroo	rabbit	?

- A. mermaid
- B. possum
- C. grasshopper
- D. sprinter

**Answer:** Option C

**Solution:**

The honeybee, angel, and bat all have wings; they are capable of flying. The kangaroo, rabbit, and grasshopper are all capable of hopping.

**The words in the bottom row are related in the same way as the words in the top row. For each item, find the word that completes the bottom row of words.**

fence	wall	boundary
path	alley	?

- A. ramp
- B. passageway
- C. airfield
- D. pedestrian

**Answer:** Option B

**Solution:**

A fence and a wall mark a boundary. A path and an alley mark a passageway

**Choose the pair that best represents a similar relationship to the one expressed in the original pair of words.**

**BINDING : BOOK**

- A. criminal : gang
- B. display : museum
- C. artist : carpenter
- D. nail : hammer
- E. frame : picture

**Answer:** Option E

**Solution:**

A binding surrounds a book; a frame surrounds a picture

**Choose the pair that best represents a similar relationship to the one expressed in the original pair of words.**

**DIVISION : SECTION**

- A. layer : tier
- B. tether : bundle
- C. chapter : verse
- D. riser : stage
- E. dais : speaker

**Answer:** Option A

**Solution:**

Division and section are synonyms; layer and tier are synonyms

**Choose the pair that best represents a similar relationship to the one expressed in the original pair of words.**

### **DEPRESSED : SAD**

- A. neat : considerate
- B. towering : cringing
- C. rapid : plodding
- D. progressive : regressive
- E. exhausted : tired

**Answer:** Option E

**Solution:**

Depressed is an intensification of sad; exhausted is an intensification of tired

**Choose the pair that best represents a similar relationship to the one expressed in the original pair of words.**

### **BRISTLE : BRUSH**

- A. arm : leg
- B. stage : curtain
- C. recline : chair
- D. key : piano
- E. art : sculpture

**Answer:** Option D

**Solution:**

A bristle is a part of a brush; a key is a part of a piano.

**Choose the pair that best represents a similar relationship to the one expressed in the original pair of words.**

### **RAIN : DRIZZLE**

- A. swim : dive
- B. hop : shuffle
- C. juggle : bounce
- D. walk : run
- E. run : jog

**Answer:** Option E

**Solution:**

To drizzle is to rain slowly; to jog is to run slowly

**Choose the pair that best represents a similar relationship to the one expressed in the original pair of words.**

### **PULSATE : THROB**

- A. walk : run
- B. tired : sleep
- C. examine : scrutinize
- D. ballet : dancer
- E. find : lose

**Answer:** Option C

**Solution:**

Pulsate and throb are synonyms, as are examine and scrutinize.

**Choose the pair that best represents a similar relationship to the one expressed in the original pair of words.**

### **FISH : SHOAL**

- A. wolf : pack

- B. elephant : jungle
- C. beagle : clan
- D. herd : peacock
- E. cow : farm

**Answer:** Option A

**Solution:**

A group of fish is a shoal; a group of wolves is a pack. **Choose the pair that best represents a similar relationship to the one expressed in the original pair of words.**

### **ODOMETER : DISTANCE**

- A. scale : weight
- B. length : width
- C. inch : foot
- D. mileage : speed
- E. area : size

**Answer:** Option A

**Solution:**

Scale - A measuring instrument for weighing; shows amount of mass.

An odometer measures distance; a scale measures weight.

**Choose the pair that best represents a similar relationship to the one expressed in the original pair of words.**

### **WAITRESS : RESTAURANT**

- A. doctor : diagnosis
- B. actor : role
- C. driver : truck
- D. teacher : school
- E. author : book

**Answer:** Option D

**Solution:**

A waitress works in a restaurant; a teacher works in a school.

**Choose the pair that best represents a similar relationship to the one expressed in the original pair of words.**

### **SKEIN : YARN**

- A. squeeze : lemon
- B. fire : coal
- C. ream : paper
- D. tree : lumber
- E. plow : acre

**Answer:** Option C

**Solution:**

A skein is a quantity of yarn; a ream is a quantity of paper.

**Choose the pair that best represents a similar relationship to the one expressed in the original pair of words.**

### **MONK : DEVOTION**

- A. maniac : pacifism
- B. explorer : contentment
- C. visionary : complacency
- D. rover : wanderlust
- E. philistine : culture

**Answer:** Option D

**Solution:**

Devotion is characteristic of a monk; wanderlust is characteristic of a rover.

**Choose the pair that best represents a similar relationship to the one expressed in the original pair of words.**

### **SLAPSTICK : LAUGHTER**

- A. fallacy : dismay
- B. genre : mystery
- C. satire : anger
- D. mimicry : tears
- E. horror : fear

**Solution:**

Slapstick results in laughter; horror results in fear

**Choose the pair that best  
represents a similar  
relationship to the one  
expressed in the original pair of  
words.**

**VERVE : ENTHUSIASM**

- A. loyalty : duplicity
- B. devotion : reverence
- C. intensity : color
- D. eminence : anonymity
- E. generosity : elation

**Answer: Option B**

**Solution:**

Verve and enthusiasm are synonyms; devotion and reverence are synonyms

**Choose the pair that best  
represents a similar  
relationship to the one  
expressed in the original pair of  
words.**

**SPY : CLANDESTINE**

- A. accountant : meticulous
- B. furrier : rambunctious
- C. lawyer : ironic
- D. shepherd : garrulous
- E. astronaut : opulent

**Answer: Option A**

**Solution:**

A spy acts in a clandestine manner; an accountant acts in a meticulous manner

**Choose the pair that best  
represents a similar  
relationship to the one  
expressed in the original pair of  
words.**

**COBBLER : SHOE**

- A. jockey : horse
- B. contractor : building
- C. mason : stone
- D. cowboy : boot
- E. potter : paint

**Answer: Option B**

**Solution:**

A cobbler makes and repairs shoes; a contractor builds and repairs buildings

**Choose the pair that best  
represents a similar  
relationship to the one  
expressed in the original pair of  
words.**

**UMBRAGE : OFFENSE**

- A. confusion : penance
- B. infinity : meaning
- C. decorum : decoration
- D. elation : jubilance
- E. outrage : consideration

**Answer: Option D**

**Solution:**

Umbrage and offense are synonyms; elation and jubilance are synonyms

**Choose the pair that best  
represents a similar  
relationship to the one  
expressed in the original pair of  
words.**

**DIRGE : FUNERAL**

- A. chain : letter

- A bell : church
- C telephone : call
- D jingle : commercial
- E hymn : concerto

**Answer:** Option D

**Solution:**

A dirge is a song used at a funeral; a jingle is a song used in a commercial.

**Choose the pair that best represents a similar relationship to the one expressed in the original pair of words.**

### **DOMINANCE : HEGEMONY**

- A romance : sympathy
- B furtherance : melancholy
- C independence : autonomy
- D tolerance : philanthropy
- E recompense : hilarity

**Answer:** Option C

**Solution:**

Hegemony means dominance; autonomy means independence.

**Choose the pair that best represents a similar relationship to the one expressed in the original pair of words.**

### **PHOBIC : FEARFUL**

- A finicky : thoughtful
- B cautious : emotional
- C envious : desiring
- D shy : familiar
- E asinine : silly

**Answer:** Option E

**Solution:**

To be phobic is to be extremely fearful; to be asinine is to be extremely silly.

**Choose the pair that best represents a similar relationship to the one expressed in the original pair of words.**

### **FERAL : TAME**

- A rancid : rational
- B repetitive : recurrent
- C nettlesome : annoying
- D repentant : honorable
- E ephemeral : immortal

**Answer:** Option E

**Solution:**

Feral and tame are antonyms; ephemeral and immortal are antonyms.

**Choose the pair that best represents a similar relationship to the one expressed in the original pair of words.**

### **METAPHOR : SYMBOL**

- A pentameter : poem
- B rhythm : melody
- C nuance : song
- D slang : usage
- E analogy : comparison

**Answer:** Option E

**Solution:**

A metaphor is a symbol; an analogy is a comparison.

**Choose the pair that best represents a similar relationship to the one expressed in the original pair of words.**

### **INTEREST : OBSESSION**

- A mood : feeling

- B. weeping : sadness
- C. dream : fantasy
- D. plan : negation
- E. highlight : indication

**Answer: Option C**

**Solution:**

Obsession is a greater degree of interest; fantasy is a greater degree of dream.

**Choose the pair that best represents a similar relationship to the one expressed in the original pair of words.**

**CONDUCTOR : ORCHESTRA**

- A. jockey : mount
- B. thrasher : hay
- C. driver : tractor
- D. skipper : crew
- E. painter : house

**Answer: Option D**

**Solution:**

A conductor leads an orchestra; a skipper leads a crew.

**Choose the pair that best represents a similar relationship to the one expressed in the original pair of words.**

**FROND : PALM**

- A. quill : porcupine
- B. blade : evergreen
- C. scale : wallaby
- D. tusk : alligator
- E. blade : fern

**Answer: Option A**

**Solution:**

A palm (tree) has fronds; a porcupine has quills.

**Choose the pair that best represents a similar relationship to the one expressed in the original pair of words.**

**SOUND : CACOPHONY**

- A. taste : style
- B. touch : massage
- C. smell : stench
- D. sight : panorama
- E. speech : oration

**Answer: Option C**

**Solution:**

A cacophony is an unpleasant sound; a stench is an unpleasant smell.

**Choose the pair that best represents a similar relationship to the one expressed in the original pair of words.**

**AERIE : EAGLE**

- A. capital : government
- B. bridge : architect
- C. unit : apartment
- D. kennel : veterinarian
- E. house : person

**Answer: Option E**

**Solution:**

An aerie is where an eagle lives; a house is where a person lives.

**Chapter 9 Matching Definition**

**Applying for Seasonal Employment occurs when a person requests to be**

## **considered for a job that is dependent on a particular season or time of year. Which situation below is the best example of Applying for Seasonal Employment?**

- A. The ski instructors at Top of the Peak Ski School work from December through March.
- B. Matthew prefers jobs that allow him to work outdoors.
- C. Lucinda makes an appointment with the beach resort restaurant manager to interview for the summer waitressing position that was advertised in the newspaper.
- D. Doug's ice cream shop stays open until 11 p.m. during the summer months.

**Answer: Option C**

### **Solution:**

Although the ski instructors at Top of the Peak Ski School do work seasonally, choice a does not describe anyone applying for seasonal employment. In choice b, the statement that Matthew likes to work outdoors tells us nothing about seasonal employment or someone applying for it. And although choice d describes a business with seasonal hours, it does not describe a person applying for seasonal work. Choice c, on the other hand, very specifically depicts a person, Lucinda, who is applying for a job as a summer waitress at a beach resort, which is dependent upon a particular season of the year.

## **Violating an Apartment**

### **Lease occurs when a tenant does something prohibited by the legally binding document that he or she has signed with a landlord. Which situation below is the best example of Violating an Apartment Lease?**

- A. Tim has decided to move to another city, so he calls his landlord to tell him that he is not

interested in renewing his lease when it expires next month.

- B. Valerie recently lost her job and, for the last three months, has neglected to pay her landlord the monthly rent they agreed upon in writing when she moved into her apartment eight months ago.
- C. Mark writes a letter to his landlord that lists numerous complaints about the apartment he has agreed to rent for two years.
- D. Leslie thinks that her landlord is neglecting the building in which she rents an apartment. She calls her attorney to ask for advice.

**Answer: Option B**

### **Solution:**

Valerie signed a legally binding document that requires her to pay a monthly rent for her apartment and she has failed to do this for the last three months. Therefore, she has violated her apartment lease.

## **An Informal Gathering occurs when a group of people get together in a casual, relaxed manner. Which situation below is the best example of an Informal Gathering?**

- A. The book club meets on the first Thursday evening of every month.
- B. After finding out about his promotion, Jeremy and a few coworkers decide to go out for a quick drink after work.
- C. Mary sends out 25 invitations for the bridal shower she is giving for her sister.
- D. Whenever she eats at the Mexican restaurant, Clara seems to run into Peter.

**Answer: Option B**

### **Solution:**

After getting some good news, Jeremy and a few friends casually get together for a drink after work, thereby having an informal gathering. Choices a and c describe more formal types of gatherings. Choice d describes a chance or coincidental kind of meeting.

**People speculate when they consider a situation and assume something to be true based on inconclusive evidence. Which situation below is the best example of Speculation ?**

- A. Francine decides that it would be appropriate to wear jeans to her new office on Friday after reading about "Casual Fridays" in her employee handbook.
- B. Mary spends thirty minutes sitting in traffic and wishes that she took the train instead of driving.
- C. After consulting several guidebooks and her travel agent, Jennifer feels confident that the hotel she has chosen is first-rate.
- D. When Emily opens the door in tears, Theo guesses that she's had a death in her family.

**Answer: Option D**

**Solution:**

This is the only situation in which someone makes an assumption that is not based on conclusive evidence. Choices a and c reflect situations in which assumptions are made based on evidence. In choice b, Mary is not assuming anything to be true. She is simply wishing that she'd made a different decision.

**Posthumous Publication occurs when a book is published after the author's death. Which situation below is the best example of Posthumous Publication ?**

- A. Richard's illness took his life before he was able to enjoy the amazing early reviews of his novel.
- B. Melissa's publisher cancels her book contract after she fails to deliver the manuscript on time.
- C. Clarence never thought he'd live to see the third book in his trilogy published.

- D. Elizabeth is honored with a prestigious literary award for her writing career and her daughter accepts the award on behalf of her deceased mother.

**Answer: Option A**

**Solution:**

Although choice d also mentions a writer who has died, it does not state that one of the writer's books was published after her death, only that she received an award. Choice a states that Richard wasn't around to see the early reviews of his novel, therefore implying that Richard died before the book was published. The other two options depict living writers.

**A Guarantee is a promise or assurance that attests to the quality of a product that is either (1) given in writing by the manufacturer or (2) given verbally by the person selling the product. Which situation below is the best example of a Guarantee?**

- A. Melissa purchases a DVD player with the highest consumer ratings in its category.
- B. The salesperson advises Curt to be sure that he buys an air conditioner with a guarantee.
- C. The local auto body shop specializes in refurbishing and selling used cars.
- D. Lori buys a used digital camera from her coworker who says that she will refund Lori

**Answer: Option D**

**Solution:**

Choices a, b, and c do not describe situations in which a product is guaranteed. Only choice d reflects a situation in which a seller attests to the quality of a product by giving the buyer a promise or assurance about its quality.

**The rules of baseball state that a batter Legally Completes His Time at Bat when he is put out or becomes a base runner.**

## **Which situation below is the best example of a batter Legally Completing His Time at Bat?**

- A. Jared's bopper over the head of the shortstop puts him in scoring position.
- B. The umpire calls a strike, even though the last pitch was way outside.
- C. The pitcher throws his famous knuckleball, Joe swings and misses, and the umpire calls a strike.
- D. The count is two balls and two strikes as Mario waits for the next pitch.

**Answer: Option A**

**Solution:**

The fact that Jared is in scoring position due to his bopper indicates that he has hit the ball and is now a base runner; therefore, he has legally completed his time at bat. Choices b and c both describe situations in which a strike is called, but they do not state that the batter has been put out or that he is now a base runner. Choice d describes a situation in which the batter, Mario, is still at the plate waiting for the next pitch.

## **Erratic Behavior occurs when an individual acts in a manner that lacks consistency, regularity, and uniformity. Which situation below is the best example of Erratic Behavior?**

- A. Julia cannot contain her anger whenever the subject of local politics is discussed.
- B. Martin has just been told that he is being laid off. Before leaving his supervisor's office, he punches a hole in the door.
- C. Rhonda has visited the dealership several times, but she still cannot decide which car to buy.
- D. In the past month, Jeffrey, who has been a model employee for three years, has repeatedly

called in sick, forgotten important meetings, and been verbally abusive to colleagues.

**Answer: Option D**

**Solution:**

Jeffrey's recent behavior is clearly inconsistent and irregular.

## **A Tiebreaker is an additional contest or period of play designed to establish a winner among tied contestants. Which situation below is the best example of a Tiebreaker?**

- A. At halftime, the score is tied at 28.
- B. Mary and Megan have each scored three goals in the game.
- C. The referee tosses a coin to decide which team will have possession of the ball first.
- D. The Sharks and the Bears each finished with 14 points, and they are now battling it out in a five-minute overtime.

**Answer: Option D**

**Solution:**

This is the only choice that indicates that an additional period of play is taking place to determine the winner of a game that ended in a tie.

## **In the Maple Hill school district, a Five-Day Suspension occurs when a student is not permitted to attend school for five days for (1) physically assaulting another student, a teacher, or a school employee or (2) willfully destructing or defacing school property. Which situation below is the best example of a Five-Day Suspension?**

- A. Lillian gets caught cheating on a math test for the second time and is suspended from school.

B. Marc is asked to leave the classroom due to his constant disruptions.

C. Franny uses spray paint to write derogatory comments on the locker room wall and she is given a suspension.

D. Ms. Farmer tells her class that students who fail the midterm exam will be expected to stay after school for tutoring help.

**Answer: Option C**

**Solution:**

Although choices a and c both describe suspensions, only choice c describes a suspension that is the result of one of the two scenarios given in the definition of a five-day suspension (physical assault or destroying or defacing school property).

Therefore, we can assume that Franny's suspension, which is the result of spray painting school property, will be a five-day suspension. Since the definition doesn't provide any information about suspensions for cheating, we can assume that Lillian's suspension does not fall into the five-day suspension category.

**It is appropriate to compensate someone if you have damaged his or her property in some way. This is called Restitution. Which situation below is the best example of Restitution?**

A. Jake borrows Leslie's camera and the lens shatters when it falls on the ground because he fails to zipper the case. When Jake returns the camera, he tells Leslie that he will pay for the repair.

B. Rebecca borrows her neighbor's car, and when she returns it, the gas tank is practically empty. She apologizes profusely and tells her neighbor she will be more considerate the next time.

C. Aaron asks Tom to check in on his apartment while he is out of town. When Tom arrives, he discovers that a pipe has burst and there is a considerable amount of water damage. He calls a plumber to repa

D. Lisa suspects that the pothole in her company's parking lot caused her flat tire. She tells her boss that she thinks the company should pay for the repair.

**Answer: Option A**

**Solution:**

Jake damaged Leslie's camera while it was in his possession and he has agreed to compensate Leslie for the cost of the repair

**Reentry occurs when a person leaves his or her social system for a period of time and then returns. Which situation below best describes Reentry ?**

A. When he is offered a better paying position, Jacob leaves the restaurant he manages to manage a new restaurant on the other side of town.

B. Catherine is spending her junior year of college studying abroad in France.

C. Malcolm is readjusting to civilian life after two years of overseas military service.

D. After several miserable months, Sharon decides that she can no longer share an apartment with her roommate Hilary.

**Answer: Option C**

**Solution:**

Malcolm is the only person returning to a social system that he has been away from for an extended period of time

**Embellishing the Truth occurs when a person adds fictitious details or exaggerates facts or true stories. Which situation below is the best example of Embellishing the Truth?**

A. Isabel goes to the theater, and the next day, she tells her coworkers she thought the play was excellent.

B. The realtor describes the house, which is eleven blocks away from the ocean, as prime waterfront property.

C. During the job interview, Fred, who has been teaching elementary school for ten years, describes himself as a very experienced teacher.

D. The basketball coach says it is likely that only the most talented players will get a college scholarship.

**Answer: Option B**

**Solution:**

The realtor is using a clear exaggeration when she states that a house which is eleven blocks away from the ocean is prime waterfront property.

**Establishing a Power of Attorney occurs when a legal document is created that gives one individual the authority to act for another. Which situation below is the best example of Establishing a Power of Attorney?**

A. Louise is selling her house and she hires a lawyer to review the contract.

B. Simone's mother can no longer get to the bank to cash her checks and make deposits, so she has taken legal steps to enable Simone to do these things for her.

C. Jack's father is elderly and Jack thinks he is no longer able to make decisions for himself.

D. At her daughter's urging, Mrs.Lenox opens up a retirement account with the local bank.

**Answer: Option B**

**Solution:**

Simone's mother has taken legal steps to allow another person to act on her behalf. Therefore, this is the only choice that indicates that a power of attorney has been established.

## **Chapter 10 logical deduction**

**Statements :No women teacher can play. Some women teachers are athletes.**

**Conclusions :**

- I. Male athletes can play.**
- II. Some athletes can play.**

- A. Only conclusion I follows
- B. Only conclusion II follows
- C. Either I or II follows
- D. Neither I nor II follows
- E. Both I and II follow

**Answer: Option D**

**Solution:**

Since one premise is negative, the conclusion must be negative. So, neither conclusion follows

**Statements :All bags are cakes.  
All lamps are cakes.**

**Conclusions :**

- I. Some lamps are bags.**
- II. No lamp is bag.**

- A. Only conclusion I follows
- B. Only conclusion II follows
- C. Either I or II follows
- D. Neither I nor II follows
- E. Both I and II follow

**Answer: Option C**

**Solution:**

Since the middle term 'cakes' is not distributed even once in the premises, no definite conclusion follows. However, I and II involve only the extreme terms and form a complementary pair. So, either I or II follows

**Statements :All mangoes are golden in colour. No golden-coloured things are cheap.**

**Conclusions :**

- I. All mangoes are cheap.**
- II. Golden-coloured mangoes are not cheap.**

- A. Only conclusion I follows
- B. Only conclusion II follows
- C. Either I or II follows
- D. Neither I nor II follows
- E. Both I and II follow

**Answer: Option B**

**Solution:**

Clearly, the conclusion must be universal negative and should not contain the middle term. So, it follows that 'No mango is cheap'. Since all mangoes are golden in colour, we may substitute 'mangoes' with 'golden-coloured mangoes'. Thus, II follows

**Statements :Some kings are queens. All queens are beautiful.**

**Conclusions :**

- I. All kings are beautiful.
- II. All queens are kings.

- A. Only conclusion I follows
- B. Only conclusion II follows
- C. Either I or II follows
- D. Neither I nor II follows
- E. Both I and II follow

**Answer: Option D**

**Solution:**

Since one premise is particular, the conclusion must be particular. So, neither I nor II follows.

**Statements :Some doctors are fools. Some fools are rich.**

**Conclusions :**

- I. Some doctors are rich
- II. Some rich are doctors.

- A. Only conclusion I follows
- B. Only conclusion II follows
- C. Either I or II follows
- D. Neither I nor II follows

- E. Both I and II follow

**Answer: Option D**

**Solution:**

Since both the premises are particular, no definite conclusion follows

**Statements :All roads are waters. Some waters are boats.**

**Conclusions :**

- I. Some boats are roads.
- II. All waters are boats.

- A. Only conclusion I follows
- B. Only conclusion II follows
- C. Either I or II follows
- D. Neither I nor II follows
- E. Both I and II follow

**Answer: Option D**

**Solution:**

The first premise is A type and distributes the subject. So, the middle term 'waters' which forms its predicate, is not distributed. The second premise is I type and does not distribute either subject or predicate. So, the middle term 'waters' forming its subject is not distributed. Since the middle term is not distributed even once in the premises, no definite conclusion follows.

**Statements :No bat is ball. No ball is wicket.**

**Conclusions :**

- I. No bat is wicket.
- II. All wickets are bats.

- A. Only conclusion I follows
- B. Only conclusion II follows
- C. Either I or II follows
- D. Neither I nor II follows
- E. Both I and II follow

**Answer: Option D**

**Solution:**

Since both the premises are negative, no definite conclusion follows.

**Statements :All flowers are trees. No fruit is tree.**

**Conclusions :**

- I. No fruit is flower.
- II. Some trees are flowers.

- A. Only conclusion I follows
- B. Only conclusion II follows
- C. Either I or II follows
- D. Neither I nor II follows
- E. Both I and II follow

**Answer: Option E**

**Solution:**

As discussed above, the conclusion must be universal negative and should not contain the middle term. So, it follows that 'No flower is fruit'. I is the converse of this conclusion and thus it follows. II is the converse of the first premise and so it also holds

**Statements :Every minister is a student. Every student is inexperienced.**

**Conclusions :**

- I. Every minister is inexperienced.
- II. Some inexperienced are students.

- A. Only conclusion I follows
- B. Only conclusion II follows
- C. Either I or II follows
- D. Neither I nor II follows
- E. Both I and II follow

**Answer: Option E**

**Solution:**

'Every' is equivalent to 'All'. Thus, since both the premises are universal and affirmative, the

conclusion must be universal affirmative and should not contain the middle term. So, I follows. II is the converse of the second premise and thus it also holds

**Statements :All roads are poles. No pole is a house.**

**Conclusions :**

- I. Some roads are houses.
- II. Some houses are poles.

- A. Only conclusion I follows
- B. Only conclusion II follows
- C. Either I or II follows
- D. Neither I nor II follows
- E. Both I and II follow

**Answer: Option D**

**Solution:**

Since both the premises are universal and one premise is negative, the conclusion must be universal negative. So, neither I nor II follows.

**Statements :All roads are waters. Some waters are boats.**

**Conclusions :**

- I. Some boats are roads.
- II. All waters are boats.

- A. Only conclusion I follows
- B. Only conclusion II follows
- C. Either I or II follows
- D. Neither I nor II follows
- E. Both I and II follow

**Answer: Option D**

**Solution:**

The first premise is A type and distributes the subject. So, the middle term 'waters' which forms its predicate, is not distributed. The second premise is I type and does not distribute either subject or predicate. So, the middle term 'waters' forming its subject is not distributed. Since the middle term is

not distributed even once in the premises, no definite conclusion follows.

**Statements :No bat is ball. No ball is wicket.**

**Conclusions :**

- I. No bat is wicket.**
- II. All wickets are bats.**

- A. Only conclusion I follows
- B. Only conclusion II follows
- C. Either I or II follows
- D. Neither I nor II follows
- E. Both I and II follow

**Answer: Option D**

**Solution:**

Since both the premises are negative, no definite conclusion follows.

**Statements :All flowers are trees. No fruit is tree.**

**Conclusions :**

- I. No fruit is flower.**
- II. Some trees are flowers.**

- A. Only conclusion I follows
- B. Only conclusion II follows
- C. Either I or II follows
- D. Neither I nor II follows
- E. Both I and II follow

**Answer: Option E**

**Solution:**

As discussed above, the conclusion must be universal negative and should not contain the middle term. So, it follows that 'No flower is fruit'. I is the converse of this conclusion and thus it follows. II is the converse of the first premise and so it also holds

**Statements :Every minister is a student. Every student is inexperienced.**

**Conclusions :**

- I. Every minister is inexperienced.**
- II. Some inexperienced are students.**

- A. Only conclusion I follows
- B. Only conclusion II follows
- C. Either I or II follows
- D. Neither I nor II follows
- E. Both I and II follow

**Answer: Option E**

**Solution:**

'Every' is equivalent to 'All'. Thus, since both the premises are universal and affirmative, the conclusion must be universal affirmative and should not contain the middle term. So, I follows. II is the converse of the second premise and thus it also holds

**Statements :All roads are poles. No pole is a house.**

**Conclusions :**

- I. Some roads are houses.**
- II. Some houses are poles.**

- A. Only conclusion I follows
- B. Only conclusion II follows
- C. Either I or II follows
- D. Neither I nor II follows
- E. Both I and II follow

**Answer: Option D**

**Solution:**

Since both the premises are universal and one premise is negative, the conclusion must be universal negative. So, neither I nor II follows.

**Statements :All roads are waters. Some waters are boats.**

**Conclusions :**

**I. Some boats are roads.  
II. All waters are boats.**

- A. Only conclusion I follows
- B. Only conclusion II follows
- C. Either I or II follows
- D. Neither I nor II follows
- E. Both I and II follow

**Answer: Option D**

**Solution:**

The first premise is A type and distributes the subject. So, the middle term 'waters' which forms its predicate, is not distributed. The second premise is I type and does not distribute either subject or predicate. So, the middle term 'waters' forming its subject is not distributed. Since the middle term is not distributed even once in the premises, no definite conclusion follows

**Statements :No bat is ball. No ball is wicket.**

**Conclusions :**

**I. No bat is wicket.  
II. All wickets are bats.**

- A. Only conclusion I follows
- B. Only conclusion II follows
- C. Either I or II follows
- D. Neither I nor II follows
- E. Both I and II follow

**Answer: Option D**

**Solution:**

Since both the premises are negative, no definite conclusion follows.

**Statements :All flowers are trees. No fruit is tree.**

**Conclusions :**

**I. No fruit is flower.  
II. Some trees are flowers.**

- A. Only conclusion I follows

- B. Only conclusion II follows
- C. Either I or II follows
- D. Neither I nor II follows
- E. Both I and II follow

**Answer: Option E**

**Solution:**

As discussed above, the conclusion must be universal negative and should not contain the middle term. So, it follows that 'No flower is fruit'. I is the converse of this conclusion and thus it follows. II is the converse of the first premise and so it also holds

**Statements :Every minister is a student. Every student is inexperienced.**

**Conclusions :**

**I. Every minister is inexperienced.  
II. Some inexperienced are students.**

- A. Only conclusion I follows
- B. Only conclusion II follows
- C. Either I or II follows
- D. Neither I nor II follows
- E. Both I and II follow

**Answer: Option E**

**Solution:**

'Every' is equivalent to 'All'. Thus, since both the premises are universal and affirmative, the conclusion must be universal affirmative and should not contain the middle term. So, I follows. II is the converse of the second premise and thus it also holds.

**Statements :All roads are poles. No pole is a house.**

**Conclusions :**

**I. Some roads are houses.  
II. Some houses are poles.**

- A. Only conclusion I follows
- B. Only conclusion II follows
- C. Either I or II follows
- D. Neither I nor II follows
- E. Both I and II follow

**Answer: Option D**

**Solution:**

Since both the premises are universal and one premise is negative, the conclusion must be universal negative. So, neither I nor II follows

**Statements :All fish are tortoise. No tortoise is a crocodile.**

**Conclusions :**

- I. No crocodile is a fish.**
- II. No fish is a crocodile.**

- A. Only conclusion I follows
- B. Only conclusion II follows
- C. Either I or II follows
- D. Neither I nor II follows
- E. Both I and II follow

**Answer: Option E**

**Solution:**

Since both the premises are universal and one premise is negative, the conclusion must be universal negative. Also, the conclusion should not contain the middle term. So, II follows; I is the converse of II and thus it also holds.

**Statements :Some dedicated souls are angels. All social workers are angels.**

**Conclusions :**

- I. Some dedicated souls are social workers.**
- II. Some social workers are dedicated souls.**

- A. Only conclusion I follows
- B. Only conclusion II follows
- C. Either I or II follows
- D. Neither I nor II follows
- E. Both I and II follow

**Answer: Option D**

**Solution:**

The first premise is an I type proposition. So, the middle term 'angels' forming the predicate is not distributed. The second premise is an A type proposition. So, the middle term 'angels' forming the predicate is not distributed. Since the middle term is not distributed even once in the premises, no definite conclusion follows.

**Statements :No gentleman is poor. All gentlemen are rich.**

**Conclusions :**

- I. No poor man is rich.**
- II. No rich man is poor.**

- A. Only conclusion I follows
- B. Only conclusion II follows
- C. Either I or II follows
- D. Neither I nor II follows
- E. Both I and II follow

**Answer: Option D**

**Solution:**

The first premise is an E-type proposition, So, the middle term 'gentleman' forming the subject is distributed. The second premise is an A-type proposition. So, the middle term 'gentlemen' forming the subject is distributed. Since the middle term is distributed twice, the conclusion cannot be universal. Since one premise is negative, the conclusion must be negative. Thus, it follows that 'Some rich men are not poor'. Thus, neither I nor II follows.

**Statements :Some swords are sharp. All swords are rusty**

**Conclusions :**

- I. Some rusty things are sharp.  
II. Some rusty things are not sharp.**

- A. Only conclusion I follows
- B. Only conclusion II follows
- C. Either I or II follows
- D. Neither I nor II follows
- E. Both I and II follow

**Answer: Option A**

**Solution:**

Since one premise is particular, the conclusion must be particular and should not contain the middle term. So, I follows. Since both the premises are affirmative, the conclusion cannot be negative. Thus, II does not follow.

- Statements :All fishes are grey in colour. Some fishes are heavy.**

**Conclusions :**

- I. All heavy fishes are grey in colour.  
II. All light fishes are not grey in colour.**

- A. Only conclusion I follows
- B. Only conclusion II follows
- C. Either I or II follows
- D. Neither I nor II follows
- E. Both I and II follow

**Solution:**

Since one premise is particular, the conclusion must be particular and should not contain the middle term. So, it follows that 'Some heavy things are grey in colour'. I is a cumulative result of this conclusion and the first premise. Thus, only I holds.

- Statements :All good athletes win. All good athletes eat well.**

**Conclusions :**

- I. All those who eat well are good athletes.  
II. All those who win eat well.**

- A. Only conclusion I follows
- B. Only conclusion II follows
- C. Either I or II follows
- D. Neither I nor II follows
- E. Both I and II follow

**Answer: Option D**

**Solution:**

Since the middle term 'good athletes' is distributed twice in the premises, the conclusion must be particular and should not contain the middle term. So it follows that 'Some of those who win, eat well'.

- Statements :All film stars are playback singers. All film directors are film stars.**

**Conclusions :**

- I. All film directors are playback singers.  
II. Some film stars are film directors.**

- A. Only conclusion I follows
- B. Only conclusion II follows
- C. Either I or II follows
- D. Neither I nor II follows
- E. Both I and II follow

**Answer: Option E**

**Solution:**

Since both the premises are universal and affirmative, the conclusion must be universal affirmative and should not contain the middle term. So, I follows. II is the converse of the second premise and so it also holds.

- Statements :All hill stations have a sun-set point. X is a hill station.**

### **Conclusions :**

- I. X has a sun-set point.**  
**II. Places other than hill stations do not have sun-set points.**

- A. Only conclusion I follows
- B. Only conclusion II follows
- C. Either I or II follows
- D. Neither I nor II follows
- E. Both I and II follow

**Answer: Option A**

#### **Solution:**

Since both the premises are universal and affirmative, the conclusion must be universal affirmative and should not contain the middle term. So, only I follows.

**Statements :Some dreams are nights. Some nights are days.**

### **Conclusions :**

- I. All days are either nights or dreams.**  
**II. Some days are nights.**

- A. Only conclusion I follows
- B. Only conclusion II follows
- C. Either I or II follows
- D. Neither I nor II follows
- E. Both I and II follow

**Answer: Option B**

#### **Solution:**

Since both the premises are particular, no definite conclusion follows. However, II is the converse of the second premise and thus it holds.

**Statements :All jungles are tigers. Some tigers are horses.**

### **Conclusions :**

- I. Some horses are jungles.**  
**II. No horse is jungle.**

- A. Only conclusion I follows
- B. Only conclusion II follows
- C. Either I or II follows
- D. Neither I nor II follows
- E. Both I and II follow

**Answer: Option C**

#### **Solution:**

Since the middle term 'tigers' is not distributed even once in the premises, no definite conclusion follows. However, I and II involve only the extreme terms and form a complementary pair. So, either I or II follows.

**Statements :All poles are guns.**  
**Some boats are not poles.**

### **Conclusions :**

- I. All guns are boats.**  
**II. Some boats are not guns.**

- A. Only conclusion I follows
- B. Only conclusion II follows
- C. Either I or II follows
- D. Neither I nor II follows
- E. Both I and II follow

**Answer: Option D**

#### **Solution:**

Clearly, the term 'guns' is distributed in both the conclusions without being distributed in any of the premises. So, neither conclusion follows.

**Statements :Many scooters are trucks. All trucks are trains.**

### **Conclusions :**

- I. Some scooters are trains.**  
**II. No truck is a scooter.**

- A. Only conclusion I follows
- B. Only conclusion II follows
- C. Either I or II follows
- D. Neither I nor II follows
- E. Both I and II follow

**Answer: Option A**

**Solution:**

Since the first premise is particular, the conclusion must be particular and should not contain the middle term. Thus, only I follows.

**Statements :Some papers are pens. Some pencils are pens. Angle is a paper.**

**Conclusions :**

- I. Angle is not a pen.**
- II. Angle is a pen.**

- A. Only conclusion I follows
- B. Only conclusion II follows
- C. Either I or II follows
- D. Neither I nor II follows
- E. Both I and II follow

**Answer: Option C**

**Solution:**

Since the middle term 'papers' is not distributed even once in the premises, no definite conclusion follows. However, I and II involve only the extreme terms and form a complementary pair. Thus, either I or II follows.

**Statements :All birds are tall. Some tall are hens.**

**Conclusions :**

- I. Some birds are hens.**
- II. Some hens are tall.**

- A. Only conclusion I follows
- B. Only conclusion II follows
- C. Either I or II follows

- D. Neither I nor II follows
- E. Both I and II follow

**Answer: Option B**

**Solution:**

Since the middle term 'tall' is not distributed even once in the premises, no definite conclusion follows. However, II is the converse of the second premise and so it holds.

**Statements :Some papers are pens. Some pencils are pens.**

**Conclusions :**

- I. Some pens are pencils.**
- II. Some pens are papers.**

- A. Only conclusion I follows
- B. Only conclusion II follows
- C. Either I or II follows
- D. Neither I nor II follows
- E. Both I and II follow

**Answer: Option E**

**Solution:**

Since both premises are particular, no definite conclusion follows. However, I is the converse of second premise, while II is the converse of the first premise. So, both of them hold.

**Statements :Some men are educated. Educated persons prefer small families.**

**Conclusions :**

- I. All small families are educated.**
- II. Some men prefer small families.**

- A. Only conclusion I follows
- B. Only conclusion II follows
- C. Either I or II follows

- D. Neither I nor II follows
- E. Both I and II follow

**Solution:**

Since one premise is particular, the conclusion must be particular and should not contain the middle term. Thus, only II follows.

**Statements :All educated people read newspapers. Rahul does not read newspaper.**

**Conclusions :**

- I. Rahul is not educated.**
- II. Reading newspaper is not essential to be educated.**

- A. Only conclusion I follows
- B. Only conclusion II follows
- C. Either I or II follows
- D. Neither I nor II follows
- E. Both I and II follow

**Answer: Option A**

**Solution:**

Since both the premises are universal and one premise is negative, the conclusion must be universal negative and should not contain the middle term. So, only I follows.

**Statements :All pens are chalks. All chairs are chalks.**

**Conclusions :**

- I. Some pens are chairs.**
- II. Some chalks are pens.**

- A. Only conclusion I follows
- B. Only conclusion II follows
- C. Either I or II follows
- D. Neither I nor II follows
- E. Both I and II follow

**Solution:**

Since the middle term 'chalks' is not distributed even once in the premises, no definite conclusion follows. However, II is the converse of the first premise and so it holds.

**Statements :Bureaucrats marry only intelligent girls. Tanya is very intelligent.**

**Conclusions :**

- I. Tanya will marry a bureaucrat.**
- II. Tanya will not marry a bureaucrat.**

- A. Only conclusion I follows
- B. Only conclusion II follows
- C. Either I or II follows
- D. Neither I nor II follows
- E. Both I and II follow

**Answer: Option C**

**Solution:**

The data does not mention whether all intelligent girls are married to bureaucrats. So, either I or II may follow.

**Statements :Some engineers are fools. Anand is an engineer.**

**Conclusions :**

- I. Some fools are engineers.**
- II. Anand is a fool.**

- A. Only conclusion I follows
- B. Only conclusion II follows
- C. Either I or II follows
- D. Neither I nor II follows
- E. Both I and II follow

**Solution:**

Since the middle term 'engineer' is not distributed even once in the premises, no definite conclusion follows. However, I is the converse of the first premise and thus it holds.

**Statements :** All windows are doors. No door is wall.

**Conclusions :**

- I. No window is wall.  
II. No wall is door.

- A. Only conclusion I follows
- B. Only conclusion II follows
- C. Either I or II follows
- D. Neither I nor II follows
- E. Both I and II follow

**Answer:** Option E

**Solution:**

Since both the premises are universal and one premise is negative, the conclusion must be universal negative. Also, the conclusion should not contain the middle term. So, I follows. However, II is the converse of the second premise and thus it also holds,

**Statements :** Most teachers are boys. Some boys are students.

**Conclusions :**

- I. Some students are boys.  
II. Some teachers are students.

- A. Only conclusion I follows
- B. Only conclusion II follows
- C. Either I or II follows
- D. Neither I nor II follows
- E. Both I and II follow

**Answer:** Option A

**Solution:**

Since both the premises are particular, no definite conclusion follows. However, I is the converse of the second premise and thus it holds.

**Statements :** No man is a donkey. Rahul is a man.

**Conclusions :**

- I. Rahul is not a donkey.  
II. All men are not Rahul.

- A. Only conclusion I follows
- B. Only conclusion II follows
- C. Either I or II follows
- D. Neither I nor II follows
- E. Both I and II follow

**Answer:** Option A

**Solution:**

Since one premise is negative, the conclusion must be negative. Conclusion II cannot follow as it contains the middle term. So, only I follows.

**Statements :** Some books are pens. No pen is pencil.

**Conclusions :**

- I. Some books are pencils.  
II. No book is pencil.

- A. Only conclusion I follows
- B. Only conclusion II follows
- C. Either I or II follows
- D. Neither I nor II follows
- E. Both I and II follow

**Answer:** Option C

**Solution:**

As discussed above, the conclusion must be particular negative and should not contain the middle term. So, it follows that 'Some books are not pencils'. However, I and II involve only the extreme terms and form a complementary pair. Thus, either I or II follows.

**Statements :** All men are married. Some men are educated.

**Conclusions :**

- I. Some married are educated.  
II. Some educated are married.

- A. Only conclusion I follows

- A. Only conclusion II follows
- B. Either I or II follows
- C. Neither I nor II follows
- D. Both I and II follow

**Answer: Option E**

**Solution:**

Since one premise is particular, the conclusion must be particular and should not contain the middle term. So, I follows. II is the converse of I and thus it also holds.

**Statements :All tubes are handles. All cups are handles.**

**Conclusions :**

- I. All cups are tubes.**
- II. Some handles are not cups.**

- A. Only conclusion I follows
- B. Only conclusion II follows
- C. Either I or II follows
- D. Neither I nor II follows
- E. Both I and II follow

**Answer: Option D**

**Solution:**

Both the premises are A type propositions. So, in either, the middle term 'handles' forming the predicate is not distributed. Since the middle term is not distributed even once in the premises, no definite conclusion follows

**Statements :No magazine is cap. All caps are cameras.**

**Conclusions :**

- I. No camera is magazine.**
- II. Some cameras are magazines.**

- A. Only conclusion I follows
- B. Only conclusion II follows

- C. Either I or II follows
- D. Neither I nor II follows
- E. Both I and II follow

**Answer: Option C**

**Solution:**

As discussed above, the conclusion must be particular negative and should not contain the middle term. So, it follows that 'Some cameras are not magazines'. However, I and II involve only the extreme terms and form a complementary pair. Thus, either I or II follows.

**Statements :All huts are mansions. All mansions are temples.**

**Conclusions :**

- I. Some temples are huts.**
- II. Some temples are mansions.**

- A. Only conclusion I follows
- B. Only conclusion II follows
- C. Either I or II follows
- D. Neither I nor II follows
- E. Both I and II follow

**Answer: Option E**

**Solution:**

As discussed above, it follows that 'All huts are temples'. I is the converse of this conclusion and so it holds. II is the converse of the second premise and so it also holds.

**Statements :Some books are tables. Some tables are mirrors.**

**Conclusions :**

- I. Some mirrors are books.**
- II. No book is mirror.**

- A. Only conclusion I follows
- B. Only conclusion II follows
- C. Either I or II follows
- D. Neither I nor II follows

- E. Both I and II follow

**Answer: Option C**

**Solution:**

Since both the premises are particular no definite conclusion follows. However, I and II involve only the extreme terms and form a complementary pair. Thus, either I or II follows.

**Statements :All trucks fly. Some scooters fly.**

**Conclusions :**

- I. All trucks are scooters.  
II. Some scooters do not fly.

- A. Only conclusion I follows  
B. Only conclusion II follows  
C. Either I or II follows  
D. Neither I nor II follows  
E. Both I and II follow

**Answer: Option D**

**Solution:**

Since the middle term 'fly' is not distributed even once in the premises, no definite conclusion follows.

**Statements :Raman is always successful. No fool is always successful.**

**Conclusions :**

- I. Raman is a fool.  
II. Raman is not a fool.

- A. Only conclusion I follows  
B. Only conclusion II follows  
C. Either I or II follows  
D. Neither I nor II follows  
E. Both I and II follow

**Answer: Option B**

**Solution:**

Since both the premises are universal and one premise is negative, the conclusion must be

universal negative and should not contain the middle term. So, only II follows.

**Statements :Some desks are caps. No cap is red.**

**Conclusions :**

- I. Some caps are desks.  
II. No desk is red.

- A. Only conclusion I follows  
B. Only conclusion II follows  
C. Either I or II follows  
D. Neither I nor II follows  
E. Both I and II follow

**Answer: Option A**

**Solution:**

Since one premise is particular and the other premise is negative, the conclusion must be particular negative and should not contain the middle term. So, it follows that 'Some desks are not red'. However, I is the converse of the first premise and thus it holds

**Statements :Some hens are cows. All cows are horses.**

**Conclusions :**

- I. Some horses are hens.  
II. Some hens are horses.

- A. Only conclusion I follows  
B. Only conclusion II follows  
C. Either I or II follows  
D. Neither I nor II follows  
E. Both I and II follow

**Answer: Option E**

**Solution:**

Since one premise is particular, the conclusion must be particular and should not contain the middle term. So, II follows. I is the converse of II and so it also holds

**Statements :** All water is divine.  
All temples are divine.

**Conclusions :**

- I. All water is temple.
- II. All temples are water.

- A. Only conclusion I follows
- B. Only conclusion II follows
- C. Either I or II follows
- D. Neither I nor II follows
- E. Both I and II follow

**Answer:** Option D

**Solution:**

Since the middle term 'divine' is not distributed even once in the premises, no definite conclusion can be drawn.

**Statements :** All men are dogs.  
All dogs are cats.

**Conclusions :**

- I. All men are cats.
- II. All cats are men.

- A. Only conclusion I follows
- B. Only conclusion II follows
- C. Either I or II follows
- D. Neither I nor II follows
- E. Both I and II follow

**Answer:** Option A

**Solution:**

Since both the premises are universal and affirmative, the conclusion must be universal affirmative. However, conclusion II, being an A-type proposition, distributes the term 'cats'.

Since the term 'cats' is distributed in II without being distributed in any of the premises, so conclusion II cannot follow. Thus, only I follows.

**Statements :** All young scientists are open-minded. No

open-minded men are superstitious.

**Conclusions :**

- I. No scientist is superstitious.
- II. No young people are superstitious.

- A. Only conclusion I follows
- B. Only conclusion II follows
- C. Either I or II follows
- D. Neither I nor II follows
- E. Both I and II follow

**Answer:** Option D

**Solution:**

The subject in both the conclusions is vague. The true conclusion is 'No young scientist is superstitious'. Thus, neither I nor II follows.

**Statements :** Some pastries are toffees. All toffees are chocolates.

**Conclusions :**

- I. Some chocolates are toffees.
- II. Some toffees are not pastries.

- A. Only conclusion I follows
- B. Only conclusion II follows
- C. Either I or II follows
- D. Neither I nor II follows
- E. Both I and II follow

**Solution:**

Since one premise is particular, the conclusion must be particular and should not contain the middle term. Thus, it follows that 'Some pastries are chocolates', I is the converse of the second premise and so it holds. Since both the premises are affirmative, the conclusion cannot be negative. Thus, II does not follow.

**Statements :**All boys are honest. Sachin is honest.

**Conclusions :**

- I. Sachin is a boy.  
II. All honest persons are boys.

- A. Only conclusion I follows
- B. Only conclusion II follows
- C. Either I or II follows
- D. Neither I nor II follows
- E. Both I and II follow

**Answer:** Option D

**Solution:**

Both the premises are A type propositions. So, the middle term 'honest' forming the predicate in each is not distributed in either. Since the middle term is not distributed even once, no definite conclusion follows.

**Statements :**All pens are roads.  
All roads are houses.

**Conclusions :**

- I. All houses are pens.  
II. Some houses are pens.

- A. Only conclusion I follows
- B. Only conclusion II follows
- C. Either I or II follows
- D. Neither I nor II follows
- E. Both I and II follow

**Answer:** Option B

**Solution:**

Since both the premises are universal and affirmative, the conclusion must be universal affirmative and should not contain the middle term. So, it follows that 'All pens are houses'. II is the converse of this conclusion and so it holds. Since the term 'houses' is distributed in I without being distributed in any of the premises, so I does not follow

**Statements :**All artists are smokers. Some smokers are drunkards.

**Conclusions :**

- I. All smokers are artists.  
II. Some drunkards are not smokers.

- A. Only conclusion I follows
- B. Only conclusion II follows
- C. Either I or II follows
- D. Neither I nor II follows
- E. Both I and II follow

**Answer:** Option D

**Solution:**

Since the middle term 'smokers' is not distributed even once in the premises, no definite conclusion follows.

**Statements :**All cars are cats.  
All fans are cats.

**Conclusions :**

- I. All cars are fans  
II. Some fans are cars.

- A. Only conclusion I follows
- B. Only conclusion II follows
- C. Either I or II follows
- D. Neither I nor II follows
- E. Both I and II follow

**Answer:** Option D

**Solution:**

Since the middle term 'cats' is not distributed even once in the premises, no definite conclusion follows

**Statements :**All cars are cats.  
All fans are cats.

**Conclusions :**

**I. All cars are fans**  
**II. Some fans are cars.**

- A. Only conclusion I follows
- B. Only conclusion II follows
- C. Either I or II follows
- D. Neither I nor II follows
- E. Both I and II follow

**Answer: Option D**

**Solution:**

Since the middle term 'cats' is not distributed even once in the premises, no definite conclusion follows.

**Statements : All cars are cats.**  
**All fans are cats.**

**Conclusions :**

**I. All cars are fans.**  
**II. Some fans are cars.**

- A. Only conclusion I follows
- B. Only conclusion II follows
- C. Either I or II follows
- D. Neither I nor II follows
- E. Both I and II follow

**Answer: Option D**

**Solution:**

Since the middle term 'cats' is not distributed even once in the premises, no definite conclusion follows.

**Statements : All cars are cats.**  
**All fans are cats.**

**Conclusions :**

**I. All cars are fans**  
**II. Some fans are cars.**

- A. Only conclusion I follows
- B. Only conclusion II follows
- C. Either I or II follows

- D. Neither I nor II follows
- E. Both I and II follow

**Answer: Option D**

**Solution:**

Since the middle term 'cats' is not distributed even once in the premises, no definite conclusion follows

**Statements : All branches are flowers. All flowers are leaves.**

**Conclusions :**

**I. All branches are leaves.**  
**II. All leaves are branches.**  
**III. All flowers are branches.**  
**IV. Some leaves are branches.**

- A. None follows
- B. Only I and IV follow
- C. Only II and III follow
- D. All follow
- E. All follow

**Answer: Option B**

**Solution:**

Since both the premises are universal and affirmative, the conclusion must be universal affirmative and should not contain the middle term. So, it follows that 'All branches are leaves'. Thus, I follows. IV is the converse of this conclusion and so it also holds. **Statements : Some bags are pockets. No pocket is a pouch.**

**Conclusions :**

**I. No bag is a pouch.**  
**II. Some bags are not pouches.**  
**III. Some pockets are bags.**  
**IV. No pocket is a bag,**

- A. None follows
- B. Only I and III follow
- C. Only II and III follow
- D. Only either I or IV follows

- E. All follow

**Answer: Option C**

**Solution:**

Since one premise is particular and the other negative, the conclusion must be particular negative and should not contain the middle term. So, II follows. III is the converse of the first premise and thus it also holds.

**Statements : All aeroplanes are trains. Some trains are chairs.**

**Conclusions :**

- I. Some aeroplanes are chairs.
- II. Some chairs are aeroplanes.
- III. Some chairs are trains.
- IV. Some trains are aeroplanes.

- A. None follows
- B. Only I and II follow
- C. Only II and III follow
- D. Only III and IV follow

**Answer: Option D**

**Solution:**

Since the middle term 'trains' is not distributed even once in the/premises, no definite conclusion follows. However, III is the converse of the second premise while IV is the converse of the first premise. So, both of them hold.

**Statements : All politicians are honest. All honest are fair.**

**Conclusions :**

- I. Some honest are politicians.
- II. No honest is politician.
- III. Some fair are politicians.
- IV. All fair are politicians.

- A. None follows.
- B. Only I follows.
- C. Only I and II follow.
- D. Only I and III follow

**Answer: Option D**

**Solution:**

Clearly, it follows that 'All politicians are fair'. I is the converse of the first premise, while III is the converse of the above conclusion. So, both I and III hold.

**Statements : Some clothes are marbles. Some marbles are bags.**

**Conclusions :**

- I. No cloth is a bag.
- II. All marbles are bags.
- III. Some bags are clothes.
- IV. No marble is a cloth.

- A. Only either I or IV follows
- B. Only either I or II follows
- C. None follows
- D. Only either I or III follows

**Answer: Option D**

**Solution:**

Since both the premises are particular, no definite conclusion follows. However, I and III involve only the extreme terms and form a complementary pair. Thus, either I or III follows.

**Statements : Some tables are TVs. Some TVs are radios.**

**Conclusions :**

- I. Some tables are radios.
- II. Some radios are tables.
- III. All radios are TVs.
- IV. All TVs are tables.

- A. None follows
- B. All follow
- C. Only I and III follow
- D. Only II and IV follow
- E. Only I and IV follow

**Answer: Option A**

**Solution:**

Since both the premises are particular, no definite conclusion follows.

**Statements : All terrorists are guilty. All terrorists are criminals.**

**Conclusions :**

- I. Either all criminals are guilty or all guilty are criminals.
- II. Some guilty persons are criminals.
- III. Generally criminals are guilty.
- IV. Crime and guilt go together.

- A. Only I follows
- B. Only I and III follow
- C. Only II follows
- D. Only II and IV follow
- E. Only I and IV follow

**Answer: Option C**

**Solution:**

Since the middle term 'terrorists' is distributed twice in the premises, the conclusion cannot be universal. So, it follows that 'Some guilty persons are criminals'. Thus, II holds.

**Statements : Some books are pens. No pen is pencil.**

**Conclusions :**

- I. Some pens are books.
- II. Some pencils are books.
- III. Some books are not pencils.
- IV. All pencils are books.

- A. Only I follows
- B. Only II and III follow
- C. Only I and III follow
- D. Only I and II follow

- E. Only I and IV follow

**Answer: Option C**

**Solution:**

Since one premise is particular and the other negative, the conclusion must be particular negative and should not contain the middle term. Thus, III follows. I is the converse of the first premise and so it also holds.

**Statements : Some bottles are drinks. All drinks are cups.**

**Conclusions :**

- I. Some bottles are cups.
- II. Some cups are drinks.
- III. All drinks are bottles.
- IV. All cups are drinks.

- A. Only I and II follow
- B. Only II and III follow
- C. Only II and IV follow
- D. Only III and IV follow
- E. Only I and IV follow

**Answer: Option A**

**Solution:**

Since one premise is particular, the conclusion must be particular and should not contain the middle term. So, it follows that 'Some bottles are cups'. Thus, I follows. II is the converse of the second premise and so it also holds.

**Statements : Some houses are offices. Some offices are schools.**

**Conclusions :**

- I. Some schools are houses.
- II. Some offices are houses.
- III. No house is school.
- IV. Some schools are offices.

- A. Only II and III follow
- B. Only I and IV follow

- C. Only either III or IV, and I follow
- D. Only II and IV and either I or III follow.

**Answer:** Option D

**Solution:**

Since both the premises are particular, no definite conclusion follows. However, I and III involve only the extreme terms and form a complementary pair. So, either I or III follows. II is the converse of the first premise while IV is the converse of the second premise. Thus, both of them hold.

**Statements : Some taxis have horns. Some taxis have lights.**

**Conclusions :**

- I. Every taxi has either horn or light.**
- II. Some taxis have neither light nor horn.**
- III. Some taxis have horns as well as lights.**
- IV. No taxi has horn as well as light.**

- A. Only I and II follow
- B. Only II and III follow
- C. Only II and IV follow
- D. Either III or IV follows
- E. All follow

**Answer:** Option D

**Solution:**

Since both the premises are particular, no definite conclusion follows. However, III and IV form a complementary pair. Thus, either III or IV follows.

**Statements : Some taxis have horns. Some taxis have lights.**

**Conclusions :**

- I. Every taxi has either horn or light.**
- II. Some taxis have neither light**

**nor horn.**

**III. Some taxis have horns as well as lights.**

**IV. No taxi has horn as well as light.**

- A. Only I and II follow
- B. Only II and III follow
- C. Only II and IV follow
- D. Either III or IV follows
- E. All follow

**Answer:** Option D

**Solution:**

Since both the premises are particular, no definite conclusion follows. However, III and IV form a complementary pair. Thus, either III or IV follows.

**Statements : Some taxis have horns. Some taxis have lights.**

**Conclusions :**

- I. Every taxi has either horn or light.**
- II. Some taxis have neither light nor horn.**
- III. Some taxis have horns as well as lights.**
- IV. No taxi has horn as well as light.**

- A. Only I and II follow
- B. Only II and III follow
- C. Only II and IV follow
- D. Either III or IV follows
- E. All follow

**Answer:** Option D

**Solution:**

Since both the premises are particular, no definite conclusion follows. However, III and IV form a complementary pair. Thus, either III or IV follows.

**Statements : Some taxis have horns. Some taxis have lights.**

**Conclusions :**

- I. Every taxi has either horn or light.
- II. Some taxis have neither light nor horn.
- III. Some taxis have horns as well as lights.
- IV. No taxi has horn as well as light.

- A. Only I and II follow
- B. Only II and III follow
- C. Only II and IV follow
- D. Either III or IV follows
- E. All follow

**Answer: Option D**

**Solution:**

Since both the premises are particular, no definite conclusion follows. However, III and IV form a complementary pair. Thus, either III or IV follows.

**Statements : All fruits are vegetables. All pens are vegetables. All vegetables are rains.**

**Conclusions :**

- I. All fruits are rains.
- II. All pens are rains.
- III. Some rains are vegetables.

- A. None follows
- B. Only I and II follow
- C. Only II and III follow
- D. Only I and III follow
- E. All follow

**Answer: Option E**

**Solution:**

III is the converse of the third premise and so it holds.

All fruits are vegetables. All vegetables are rains.

The conclusion must be universal affirmative and should not contain the middle term.

So, it follows that 'All fruits are rains'. Thus, I follows.

All pens are vegetables. All vegetables are rains.

Clearly, it follows that 'All pens are rains'. Thus, II follows

**Statements : Some towels are brushes. No brush is soap. All soaps are rats.**

**Conclusions :**

- I. Some rats are brushes.
- II. No rat is brush.
- III. Some towels are soaps.

- A. None follows
- B. Only either I or II follows
- C. Only II follows
- D. Only I and III follow
- E. None of these

**Answer: Option B**

**Solution:**

Some towels are brushes. No brush is soap.

Since one premise is particular and the other negative, the conclusion must be particular negative (O-type) and should not contain the middle term. So, it follows that 'Some towels are not soaps'. No brush is soap. All soaps are rats.

Since the middle term is distributed twice, the conclusion must be particular. Since one premise is negative, the conclusion must be negative. So, it follows that 'Some brushes are not rats'. Since I and

II involve the same terms and form a complementary pair, so either I or II follows.

**Statements :** Some pictures are frames. Some frames are idols. All idols are curtains.

**Conclusions :**

- I. Some curtains are pictures.
- II. Some curtains are frames.
- III. Some idols are frames.

- A. Only I and II follow
- B. Only II and III follow
- C. Only I and III follow
- D. All follow
- E. None of these

**Answer: Option B**

**Solution:**

III is the converse of the second premise and so it holds.

Some pictures are frames. Some frames are idols.

Since both the premises are particular, no definite conclusion follows.

Some frames are idols. All idols are curtains.

Since one premise is particular, the conclusion must be particular and should not contain the middle term. So, it follows that 'Some frames are curtains'. III is the converse of this conclusion and so it holds.

Some pictures are frames. Some frames are curtains.

Since both the premises are particular, no definite conclusion can be drawn

**Statements :** Some hills are rivers. Some rivers are deserts. All deserts are roads.

**Conclusions :**

- I. Some roads are rivers.
- II. Some roads are hills.
- III. Some deserts are hills.

- A. None follows
- B. Only I follows
- C. Only I and II follow
- D. Only II and III follow
- E. All follow

**Answer: Option B**

**Solution:**

Some hills are rivers. Some rivers are deserts.

Since both the premises are particular, no definite conclusion follows.

Some rivers are deserts. All deserts are roads.

Since one premise is particular, the conclusion must be particular and shouldn't contain the middle term. So, it follows that 'Some rivers are roads'. I is the converse of this conclusion and so it holds.

Some hills are rivers. Some rivers are roads.

Again, since both the premises are particular, no definite conclusion follows

**Statements :** Some saints are balls. All balls are bats. Some tigers are balls.

**Conclusions :**

- I. Some bats are tigers.
- II. Some saints are bats.
- III. All bats are balls.

- A. Only I and II follow
- B. Only II follows
- C. Only I and III follow
- D. Only III follows
- E. None of these.

**Answer: Option A**

**Solution:**

Some saints are balls. All balls are bats.

Since one premise is particular, the conclusion must be particular and should not contain the middle term. So, it follows that 'Some saints are bats'. Thus, II follows. Some tigers are balls. All balls are bats.

Since one premise is particular, the conclusion must be particular and should not contain the middle term. So, it follows that 'Some tigers are bats'. I is the converse of this conclusion and so it holds.

**Statements : Some pens are books. All schools are books. Some colleges are schools.**

**Conclusions :**

- I. Some colleges are pens.
- II. Some pens are schools.
- III. Some colleges are books.

- A. Only I and II follow
- B. Only II and III follow
- C. Only I and III follow
- D. All follow
- E. None of these

**Answer: Option E**

**Solution:**

Some pens are books. All schools are books.

Since the middle term 'books' is not distributed even once in the premises, so no definite conclusion follows.

Some colleges are schools. All schools are books.

Since one premise is particular, the conclusion must be particular and should not contain the middle term.

So, it follows that 'Some colleges are books'. Thus, III follows.

Some pens are books. Some colleges are books.

Since both the premises are particular, no definite conclusion can be drawn.

Hence, only III follows

**Statements : All trains are buses. No room is bus. All boats are rooms.**

**Conclusions :**

- I. No boat is train.
- II. No bus is boat.
- III. No train is room.

- A. None follows
- B. Only I and II follow
- C. Only II and III follow
- D. Only I and III follow
- E. All follow

**Answer: Option E**

**Solution:**

All trains are buses. No room is bus.

Since both the premises are universal and one premise is negative, the conclusion must be universal negative (E-type) and should not contain the middle term. So, it follows that 'No train is room'. Thus, III follows.

All boats are rooms. No room is bus.

As discussed above, it follows that 'No boat is bus'.

II is the converse of this conclusion and so it holds. All trains are buses. No boat is bus.

Again, it follows that 'No train is boat'. I is the converse of this conclusion and so it holds.

**Statements : Some mountains are hillocks. Some mountains are rivers. Some mountains are valleys.**

**Conclusions :**

- I. All mountains are either hillocks or rivers or valleys.**  
**II. No valley is river.**  
**III. Some river are valleys.**

- A.  None follows  
B.  Only I follows  
C.  Only either II or III follows  
D.  Only III follows  
E.  None of these

**Answer: Option C**

**Solution:**

Since each combination of premises shall contain two particular premises, no definite conclusion can be drawn. However, II and III are statements involving the extreme terms of the last two premises and form a complementary pair. Thus, either II or III follows

**Statements : Some blades are hammers. Some hammers are knives. Some knives are axes.**

**Conclusions :**

- I. Some axes are hammers.**  
**II. Some knives are blades.**  
**III. Some axes are blades.**

- A.  None follows  
B.  Only I follows  
C.  Only II follows  
D.  Only III follows  
E.  None of these

**Answer: Option A**

**Solution:**

Since each combination of premises has two particular premises, so no definite conclusion follows.

**Statements : Some boxes are hammers. Some hammers are beads. All beads are rings.**

**Conclusions :**

- I. Some rings are hammers.**  
**II. Some hammers are boxes.**  
**III. Some rings are boxes.**

- A.  None follows  
B.  Only I follows  
C.  Only I and II follow  
D.  Only II and III follow  
E.  All follow

**Answer: Option C**

**Solution:**

II is the converse of first premise and so it holds.

Some boxes are hammers. Some hammers are beads.

Since both the premises are particular, no definite conclusion can be drawn.

Some hammers are beads. All beads are rings.

Since one premise is particular, the conclusion must be particular and should not contain the middle term. So, it follows that 'Some hammers are rings'. I is the converse of this conclusion and so it holds.

Some boxes are hammers. Some hammers are rings.

Since both the premises are particular, no definite conclusion can be drawn

**Statements : Some blankets are beds. Some pillows are blankets. All beds are pillows.**

**Conclusions :**

- I. Some blankets are pillows.**  
**II. Some pillows are beds.**  
**III. Some beds are blankets.**

- A.  Only either I or II follows  
B.  Only I and either II or III follow  
C.  Only III and either I or II follow

- D. All I, II and III follow
- E. None of these

**Answer: Option D**

**Solution:**

I is the converse of the second premise, II is the converse of the third premise and III is the converse of the first premise and as such, all three of them follow

**Statements : All dolls are windows. All bottles are windows. All cars are bottles.**

**Conclusions :**

- I. All cars are windows.**
- II. Some cars are dolls.**
- III. Some windows are cars.**

- A. Only I and II follow
- B. Only II and III follow
- C. Only I and III follow
- D. All follow
- E. None of these

**Answer: Option C**

**Solution:**

All cars are bottles. All bottles are windows.

Since both the premises are universal, the conclusion must be universal and shouldn't contain the middle term, So, it follows that 'All cars are windows'. Thus, I follows.

Also, III is the converse of this conclusion and so it holds.

All dolls are windows. All bottles are windows.

Since the middle term 'windows' is not distributed even once in the premises, no definite conclusion follows.

All cars are windows. All bottles are windows.

Again, the middle term 'windows' is not distributed even once in the premises.

So, no definite conclusion follows.

**Statements : All tigers are lions. No cow is lion. Some camels are cows.**

**Conclusions :**

- I. Some lions are camels.**
- II. No camel- is tiger.**
- III. Some tigers are cows.**

- A. None follows
- B. Only I follows
- C. Only II follows
- D. Only III follows
- E. Either I or II follows

**Answer: Option A**

**Solution:**

All tigers are lions. No cow is lion.

Since both the premises are universal and one premise is negative, the conclusion must be universal negative (E-type) and shouldn't contain the middle term. So, it follows that 'No tiger is cow'.

Some camels are cows. No cow is lion.

Since one premise is particular and the other negative, the conclusion must be particular negative (O-type) and should not contain the middle term. So, it follows that 'Some camels are not lions'. Some camels are cows. No tiger is cow.

Since one premise is particular and the other negative, the conclusion must be particular negative (O-type) and should not contain the middle term. So, it follows that 'Some camels are not tigers'.

**Statements : All flowers are toys. Some toys are trees. Some angels are trees.**

**Conclusions :**

**I. Some angels are toys.  
II. Some trees are flowers.  
III. Some flowers are angels.**

- A. None follows
- B. Only I follows
- C. Only II follows
- D. Only III follows
- E. Only I and III follow

**Answer:** Option A

**Solution:**

All flowers are toys. Some toys are trees.

Since the middle term 'toys' is not distributed even once in the premises, no definite conclusion follows.

Some toys are trees. Some angels are trees.

Since both the premises are particular, no definite conclusion can be drawn.

**Statements : Some rats are cats. Some cats are dogs. No dog is cow.**

**Conclusions :**

- I. No cow is cat.**
- II. No dog is rat.**
- III. Some cats are rats.**

- A. None follows
- B. Only I and II follow
- C. Only II and III follow
- D. Only III follows
- E. All I, II and III follow

**Answer:** Option D

**Solution:**

III is the converse of the first premise and so it holds.

Some rats are cats. Some cats are dogs.

Since both the premises are particular, no definite conclusion follows.

Some cats are dogs. No dog is cow.

Since one premise is particular and the other negative, the conclusion must be particular negative (O-type) and should not contain the middle term. So, it follows that 'Some cats are not cows'.

**Statements : All tigers are jungles. No jungle is bird. Some birds are rains.**

**Conclusions :**

- I. No rain is jungle.**
- II. Some rains are jungles.**
- III. No bird is tiger.**

- A. Only I and II follow
- B. Only III follows
- C. Only either I or II, and III follow
- D. All follow
- E. None of these

**Answer:** Option C

**Solution:**

All tigers are jungles. No jungle is bird.

Since both the premises are universal and one premise is negative, the conclusion must be universal negative (E-type) and should not contain the middle term.

So, it follows that 'No tiger is bird'. III is the converse of this conclusion and so it holds.

No jungle is bird. Some birds are rains.

Since one premise is particular and the other negative, the conclusion must be particular negative (O-type) and should not contain the middle term. So, it follows that 'Some jungles are not rains'.

Since I and II also involve the same terms and form a complementary pair, so either I or II follows.

**Statements :** All tigers are lions.  
No cow is lion. Some camels are cows.

**Conclusions :**

- I. Some lions are camels.
- II. No camel- is tiger.
- III. Some tigers are cows.

- A. None follows
- B. Only I follows
- C. Only II follows
- D. Only III follows
- E. Either I or II follows

**Answer:** Option A

**Solution:**

All tigers are lions. No cow is lion.

Since both the premises are universal and one premise is negative, the conclusion must be universal negative (E-type) and shouldn't contain the middle term. So, it follows that 'No tiger is cow'.

Some camels are cows. No cow is lion.

Since one premise is particular and the other negative, the conclusion must be particular negative (O-type) and should not contain the middle term. So, it follows that 'Some camels are not lions'. Some camels are cows. No tiger is cow.

Since one premise is particular and the other negative, the conclusion must be particular negative (O-type) and should not contain the middle term. So, it follows that 'Some camels are not tigers'.

**Statements :** All flowers are toys. Some toys are trees. Some angels are trees.

**Conclusions :**

- I. Some angels are toys.

**II. Some trees are flowers.**  
**III. Some flowers are angels.**

- A. None follows
- B. Only I follows
- C. Only II follows
- D. Only III follows
- E. Only I and III follow

**Answer:** Option A

**Solution:**

All flowers are toys. Some toys are trees.

Since the middle term 'toys' is not distributed even once in the premises, no definite conclusion follows.

Some toys are trees. Some angels are trees.

Since both the premises are particular, no definite conclusion can be drawn.

**Statements :** Some rats are cats. Some cats are dogs. No dog is cow.

**Conclusions :**

- I. No cow is cat.
- II. No dog is rat.
- III. Some cats are rats.

- A. None follows
- B. Only I and II follow
- C. Only II and III follow
- D. Only III follows
- E. All I, II and III follow

**Answer:** Option D

**Solution:**

III is the converse of the first premise and so it holds.

Some rats are cats. Some cats are dogs.

Since both the premises are particular, no definite conclusion follows.

Some cats are dogs. No dog is cow.

Since one premise is particular and the other negative, the conclusion must be particular negative (O-type) and should not contain the middle term. So, it follows that 'Some cats are not cows'.

**Statements :** All tigers are jungles. No jungle is bird. Some birds are rains.

**Conclusions :**

- I. No rain is jungle.
- II. Some rains are jungles.
- III. No bird is tiger.

- A. Only I and II follow
- B. Only III follows
- C. Only either I or II, and III follow
- D. All follow
- E. None of these

**Answer: Option C**

**Solution:**

All tigers are jungles. No jungle is bird.

Since both the premises are universal and one premise is negative, the conclusion must be universal negative (E-type) and should not contain the middle term.

So, it follows that 'No tiger is bird'. III is the converse of this conclusion and so it holds.

No jungle is bird. Some birds are rains.

Since one premise is particular and the other negative, the conclusion must be particular negative (O-type) and should not contain the middle term. So, it follows that 'Some jungles are not rains'.

Since I and II also involve the same terms and form a complementary pair, so either I or II follows.

**Statements :** All trees are flowers. No flower is fruit. All

branches are fruits.

**Conclusions :**

- I. Some branches are trees.
- II. No fruit is tree.
- III. No tree is branch.

- A. None follows
- B. Only either I or III follows
- C. Only II follows
- D. Only either I or III, and II follow
- E. None of these

**Answer: Option E**

**Solution:**

All trees are flowers. No flower is fruit.

Since both the premises are universal and one premise is negative, the conclusion must be universal negative (E-type) and should not contain the middle term. So, it follows that 'No tree is fruit'. II is the converse of this conclusion and so it follows.

All branches are fruits. No flower is fruit.

Since both the premises are universal and one premise is negative, the conclusion must be universal negative (E-type) and should not contain the middle term. So, it follows that 'No branch is flower'.

All trees are flowers. No branch is tree.

As discussed above, it follows that 'No tree is branch'. So, III follows.

Hence, both II and III follow.

**Statements :** Some uniforms are covers. All covers are papers. All papers are bags.

**Conclusions :**

- I. All covers are bags.**
- II. Some bags are covers, papers and uniforms.**
- III. Some uniforms are not papers.**

- A. Only I follows
- B. Only I and II follow
- C. Only III follows
- D. All I, II and III follow
- E. None of these

**Answer: Option B**

**Solution:**

Some uniforms are covers. All covers are papers.

Since one premise is particular, the conclusion must be particular and should not contain the middle term. So, it follows that 'Some uniforms are papers'. All covers are papers. All papers are bags.

Since both the premises are universal and affirmative, the conclusion must be universal affirmative (A-type) and should not contain the middle term. So, it follows that 'All covers are bags'. Thus, I follows. The converse of this conclusion i.e. 'Some bags are covers' also holds.

Some uniforms are covers. All covers are bags.

Since one premise is particular, the conclusion must be particular and should not contain the middle term. So, it follows that 'Some uniforms are bags', The converse of this conclusion i.e. 'Some bags are uniforms' also holds.

Further, the converse of the third premise i.e. 'Some bags are papers' holds.

Now, II is the cumulative result of the conclusions 'Some bags are covers', 'Some bags are papers' and 'Some bags are uniforms'. Thus, II follows.

**Statements : No rabbit is lion.**

**Some horses are lions. All rabbits are tables.**

### **Conclusions :**

- I. Some tables are lions.**
- II. Some horses are rabbits.**
- III. No lion is table.**

- A. None follows
- B. Only either I or III follows
- C. Only II and III follow
- D. Only III follows
- E. None of these

**Answer: Option B**

**Solution:**

Some horses are lions. No rabbit is lion.

Since one premise is particular and the other negative, the conclusion must be particular negative (O-type) and should not contain the middle term.

So, it follows that 'Some horses are not rabbits'.

All rabbits are tables. No rabbit is lion.

Since the middle term 'rabbits' is distributed twice, the conclusion must be particular.

Since one premise is negative, the conclusion must be negative. So, it follows that 'Some tables are not lions'. Since I and III involve the same terms and form a complementary pair, so either I or III follows. **Statements : All benches are desks. Some desks are roads. All roads are pillars.**

### **Conclusions :**

- I. Some pillars are benches.**
- II. Some pillars are desks.**
- III. Some roads are benches.**
- IV. No pillar is bench.**

- A. None follows
- B. Only either I or IV, and III follow
- C. Only either I or IV follows

- D. Only either I or IV, and II follow
- E. All follow

**Answer: Option D**

**Solution:**

All benches are desks. Some desks are roads.

Since the middle term 'desks' is not distributed even once in the premises, no definite conclusion follows.

Some desks are roads. All roads are pillars.

Since one premise is particular, the conclusion must be particular and should not contain the middle term. So, it follows that 'Some desks are pillars'. II is the converse of this conclusion and so it holds.

All benches are desks. Some desks are pillars.

Since the middle term 'desks' is not distributed even once in the premises, no definite conclusion follows. However, I and IV involve the extreme terms and form a complementary pair. So, either I or IV follows.

**Statements : Some dogs are rats. All rats are trees. Some trees are not dogs.**

**Conclusions :**

- I. Some trees are dogs.**
- II. All dogs are trees.**
- III. All rats are dogs.**
- IV. No tree is dog.**

- A. None follows
- B. Only I follows
- C. Only I and II follow
- D. Only II and III follow
- E. All follow

**Answer: Option B**

**Solution:**

Some dogs are rats. All rats are trees.

Since one premise is particular, the conclusion must be particular and should not contain the middle term. So, it follows that 'Some dogs are trees'. I is the converse of this conclusion and so it holds.

All rats are trees. Some trees are not dogs.

Since the middle term 'trees' is not distributed even once in the premises, no definite conclusion follows.

**Statements : Some bricks are trees. All trees are pens. All pens are boats.**

**Conclusions :**

- I. Some boats are bricks.**
- II. Some pens are bricks.**
- III. Some trees are bricks.**
- IV. Some bricks are boats.**

- A. Only I and II follow
- B. Only III and IV follow
- C. None follows
- D. All follow
- E. None of these

**Answer: Option D**

**Solution:**

III is the converse of the first premise and so it holds.

Some bricks are trees. All trees are pens.

Since one premise is particular, the conclusion must be particular and should not contain the middle term. So, it follows that 'Some bricks are pens'. II is the converse of this conclusion and so it holds.

All trees are pens. All pens are boats.

Since both the premises are universal and affirmative, the conclusion must be universal affirmative and should not contain the middle term. So, it follows that 'All trees are boats'.

Some bricks are trees. All trees are boats.

Since one premise is particular, the conclusion must be particular and should not contain the middle term. So, it follows that 'Some bricks are boats'. Thus, IV follows. I is the converse of this conclusion and so it also holds

**Statements : All cups are glasses. Some glasses are bowls. No bowl is a plate.**

**Conclusions :**

- I. No cup is a plate.**
- II. No glass is a plate.**
- III. Some plates are bowls.**
- IV. Some cups are not glasses.**

- A.  None follows
- B.  Only either I or III follows
- C.  Only II and III follow
- D.  Only III and IV follow
- E.  None of these

**Answer: Option A**

**Solution:**

All cups are glasses. Some glasses are bowls.

Since the middle term 'glasses' is not distributed even once in the premises, no definite conclusion follows.

Some glasses are bowls. No bowl is a plate.

Since one premise is particular and the other negative, the conclusion must be particular negative and should not contain the middle term. So, it follows that 'Some glasses are not plates'.

**Statements : Some trains are roads. No road is jungle. All flowers are jungles.**

**Conclusions:**

- I. Some trains are flowers.**
- II. Some trains are jungles.**

**III. Some flowers are trains.**  
**IV. No road is flower.**

- A.  None follows
- B.  Only II follows
- C.  Only III follows
- D.  Only IV follows
- E.  All follow

**Answer: Option D**

**Solution:**

Some trains are roads. No road is jungle.

Since one premise is particular and the other negative, the conclusion must be particular negative and should not contain the middle term. So, it follows that 'Some trains are not jungles'.

No road is jungle. All flowers are jungles.

Since both the premises are universal and one premise is negative, the conclusion must be universal negative and should not contain the middle term. So, it follows that 'No flower is road'. IV is the converse of this conclusion and so it holds.

Some trains are roads, No flower is road.

As discussed above, it follows that 'Some trains are not flowers'

**Statements : All doors are buses. All buses are leaves. No leaf is a flower.**

**Conclusions :**

- I. No flower is a door.**
- II. No flower is a bus.**
- III. Some leaves are doors.**
- IV. Some leaves are buses.**

- A.  None follows
- B.  Only I and II follow
- C.  Only II and III follow
- D.  Only II, III and IV follow

- E. All follow

**Answer: Option E**

**Solution:**

IV is the converse of the second premise and so it holds.

All doors are buses. All buses are leaves.

Since both the premises are universal and affirmative, the conclusion must be universal affirmative and should not contain the middle term. So, it follows that 'All doors are leaves'. III is the converse of this conclusion and so it holds.

All buses are leaves. No leaf is a flower.

Since both the premises are universal and one premise is negative, the conclusion must be universal negative and should not contain the middle term. So, it follows that 'No bus is flower'. II is the converse of this conclusion and so it holds.

All doors are buses. No bus is flower.

As discussed above, it follows that 'No door is flower'. I is the converse of this conclusion and so it also holds.

**Statements : All oceans are rivers. Some springs are rivers.  
All wells are springs.**

**Conclusions :**

- I. Some springs are oceans.
- II. Some wells are rivers.
- III. Some rivers are oceans.
- IV. No well is river.

- A. None follows
- B. Only either I or III, and IV follow
- C. Only either II or IV, and III follow
- D. All follow
- E. Only either II or IV, and I follow

**Answer: Option C**

**Solution:**

III is the converse of the first premise and so it holds.

All oceans are rivers. Some springs are rivers.

Since the middle term 'rivers' is not distributed even once in the premises, no definite conclusion follows.

All wells are springs. Some springs are rivers.

Since the middle term 'springs' is not distributed even once in the premises, no definite conclusion follows. However, II and IV involve the extreme terms and form a complementary pair. Thus, either II or IV follows

**Statements : Some tapes are discs. Some discs are cassettes. Some cassettes are songs.**

**Conclusions :**

- I. Some songs are discs.
- II. Some cassettes are tapes.
- III. Some songs are tapes.
- IV. No song is a disc.

- A. Only either I or IV follows
- B. Only either II or IV follows
- C. Only III and IV follow
- D. Only III and either II or IV follows
- E. None of these

**Answer: Option A**

**Solution:**

Since each combination of premises shall contain two particular premises, no definite conclusion can be drawn. However, I and IV involve the extreme terms of the second and third premises and form a complementary pair. Thus, either I or IV follows.

**Statements : No table is fruit.  
No fruit is window. All windows are chairs.**

### **Conclusions :**

- I. No window is table.**
- II. No chair is fruit.**
- III. No chair is table.**
- IV. All chairs are windows.**

- A. None follows
- B. Only I and II follow
- C. Only III and IV follow
- D. All follow
- E. None of these

**Answer: Option A**

#### **Solution:**

No table is fruit. No fruit is window.

Since both the premises are negative, no definite conclusion follows.

No fruit is window. All windows are chairs.

Since the middle term 'windows' is distributed twice and one premise is negative, the conclusion must be particular negative. So, it follows that 'Some chairs are not fruits'.

**Statements : All jungles are buses. All books are buses. All fruits are books.**

### **Conclusions :**

- I. >Some fruits are jungles.**
- II. Some buses are books.**
- III. Some buses are jungles.**
- IV. All fruits are buses.**

- A. Only I, II and III follow
- B. Only I, II and IV follow
- C. Only II, III and IV follow
- D. All follow
- E. None of these

**Answer: Option C**

#### **Solution:**

III is the converse of the first premise and II is the converse of the second premise.

So, both of them hold.

All fruits are books. All books are buses.

Since both the premises are universal and affirmative, the conclusion must be universal affirmative and should not contain the middle term. So, it follows that 'All fruits are buses'. Thus, IV follows.

All jungles are buses. All books are buses.

Since the middle term 'buses' is not distributed even once in the premises, no definite conclusion follows.

All fruits are buses. All books are buses.

As discussed above, no definite conclusion can be drawn.

All jungles are buses. All fruits are buses.

Again, no definite conclusion follows.

C. uncertain

**Answer:** Option A

**Solution:**

Because the first two statements are true,  
raspberries are the most expensive of the three.

**If the first two statements are true, the third statement is :**

- I. All the trees in the park are flowering trees.
- II. Some of the trees in the park are dogwoods.
- III. All dogwoods in the park are flowering trees.

A. true

B. false

C. uncertain

**Answer:** Option A

**Solution:**

All of the trees in the park are flowering trees, So all dogwoods in the park are flowering trees

**If the first two statements are true, the third statement is :**

- I. Mara runs faster than Gail.
- II. Lily runs faster than Mara.
- III. Gail runs faster than Lily.

A. true

B. false

C. uncertain

**Answer:** Option B

**Solution:**

We know from the first two statements that Lily runs fastest. Therefore, the third statement must be false.

**If the first two statements are true, the third statement is :**

- I. Apartments in the Riverdale Manor cost less than apartments in The Gaslight Commons.

## Chapter 11 Logical Problems

**If the first two statements are true, the third statement is :**

- I. Tanya is older than Eric.
- II. Cliff is older than Tanya.
- III. Eric is older than Cliff.

A. true

B. false

C. uncertain

**Answer:** Option B

**Solution:**

Because the first two statements are true, Eric is the youngest of the three, so the third statement must be false.

**If the first two statements are true, the third statement is :**

- I. Blueberries cost more than strawberries.
- II. Blueberries cost less than raspberries.
- III. Raspberries cost more than strawberries and blueberries.

A. true

B. false

**II. Apartments in the Livingston Gate cost more than apartments in the The Gaslight Commons.**

**III. Of the three apartment buildings, the Livingston Gate costs the most.**

- A.  true
- B.  false
- C.  uncertain

**Answer: Option A**

**Solution:**

Since the Gaslight Commons costs more than the Riverdale Manor and the Livingston Gate costs more than the Gaslight Commons, it is true that the Livingston Gate costs the most.

**If the first two statements are true, the third statement is :**

**I. The Kingston Mall has more stores than the Galleria.  
II. The Four Corners Mall has fewer stores than the Galleria.  
III. The Kingston Mall has more stores than the Four Corners Mall.**

- A.  true
- B.  false
- C.  uncertain

**Answer: Option A**

**Solution:**

From the first two statements, you know that the Kingston Mall has the most stores, so the Kingston Mall would have more stores than the Four Corners Mall.

**If the first two statements are true, the third statement is :**

**I. All the tulips in Zoe's garden are white.  
II. All the pansies in Zoe's**

**garden are yellow.**

**III. All the flowers in Zoe's garden are either white or yellow.**

- A.  true
- B.  false
- C.  uncertain

**Answer: Option C**

**Solution:**

The first two statements give information about Zoe's tulips and pansies. Information about any other kinds of flowers cannot be determined

**If the first two statements are true, the third statement is :**

**I. During the past year, Josh saw more movies than Stephen.  
II. Stephen saw fewer movies than Darren.  
III. Darren saw more movies than Josh.**

- A.  true
- B.  false
- C.  uncertain

**Answer: Option C**

**Solution:**

Because the first two sentences are true, both Josh and Darren saw more movies than Stephen. However, it is uncertain as to whether Darren saw more movies than Josh.

**If the first two statements are true, the third statement is :**

**I. Rover weighs less than Fido.  
II. Rover weighs more than Boomer.  
III. Of the three dogs, Boomer weighs the least.**

- A.  true
- B.  false

- C. uncertain

**Answer:** Option A

**Solution:**

According to the first two statements, Fido weighs the most and Boomer weighs the least.

**If the first two statements are true, the third statement is :**

- I. All the offices on the 9th floor have wall-to-wall carpeting.
- II. No wall-to-wall carpeting is pink.
- III. None of the offices on the 9th floor has pink wall-to-wall carpeting.

- A. true  
 B. false  
 C. uncertain

**Answer:** Option A

**Solution:**

If no wall-to-wall carpeting is pink and all the offices have wall-to-wall carpeting, none of the offices has pink wall-to-wall carpeting.

**If the first two statements are true, the third statement is :**

- I. Class A has a higher enrollment than Class B.
- II. Class C has a lower enrollment than Class B.
- III. Class A has a lower enrollment than Class C.

- A. true  
 B. false  
 C. uncertain

**Answer:** Option B

**Solution:**

From the first two statements, we know that of the three classes, Class A has the highest enrollment, so the third statement must be false.

**If the first two statements are true, the third statement is :**

- I. Class A has a higher enrollment than Class B.
- II. Class C has a lower enrollment than Class B.
- III. Class A has a lower enrollment than Class C.

- A. true

- B. false

- C. uncertain

**Answer:** Option B

**Solution:**

From the first two statements, we know that of the three classes, Class A has the highest enrollment, so the third statement must be false.

**If the first two statements are true, the third statement is :**

- I. Class A has a higher enrollment than Class B.
- II. Class C has a lower enrollment than Class B.
- III. Class A has a lower enrollment than Class C.

- A. true

- B. false

- C. uncertain

**Answer:** Option B

**Solution:**

From the first two statements, we know that of the three classes, Class A has the highest enrollment, so the third statement must be false.

**If the first two statements are true, the third statement is :**

- I. Class A has a higher enrollment than Class B.
- II. Class C has a lower enrollment than Class B.

## **II. Class A has a lower enrollment than Class C.**

- A. true
- B. false
- C. uncertain

**Answer:** Option B

**Solution:**

From the first two statements, we know that of the three classes, Class A has the highest enrollment, so the third statement must be false.

## **If the first two statements are true, the third statement is :**

- I. A fruit basket contains more apples than lemons.**
- II. There are more lemons in the basket than there are oranges.**
- III. The basket contains more apples than oranges.**

- A. true
- B. false
- C. uncertain

**Answer:** Option A

**Solution:**

There are fewer oranges than either apples or lemons, so the statement is true.

Easy method: (Try this method to solve without any confusion)

1. A fruit basket contains more apples than lemons  
= App > Lem
2. There are more lemons in the basket than there are oranges = Lem > Org

Now, Combine the above two results: App > Lem > Org

3. The basket contains more apples than oranges  
(App > ... > Org) = Yes.

Therefore, the given 3rd statement is true.

**If the first two statements are true, the third statement is :**

- I. The Shop and Save Grocery is south of Greenwood Pharmacy.**
- II. Rebecca's house is northeast of Greenwood Pharmacy.**
- III. Rebecca's house is west of the Shop and Save Grocery.**

- A. true

- B. false

- C. uncertain

**Answer:** Option B

**Solution:**

Because the first two statements are true, Rebecca's house is also northeast of the Shop and Save Grocery, which means that the third statement is false.

**If the first two statements are true, the third statement is :**

- I. Joe is younger than Kathy.**
- II. Mark was born after Joe.**
- III. Kathy is older than Mark.**

- A. true

- B. false

- C. uncertain

**Answer:** Option A

**Solution:**

Joe is younger than Kathy and older than Mark, so Mark must be younger than Kathy.

**If the first two statements are true, the third statement is :**

- I. On the day the Barton triplets are born,**
- II. Jenna weighs more than Jason.**
- III. Jason weighs less than Jasmine.**

**Of the three babies, Jasmine weighs the most.**

- A. true
- B. false
- C. uncertain

**Answer:** Option C

**Solution:**

We only know that Jasmine weighs more than Jason. There is no way to tell whether Jasmine also weighs more than Jenna.

**If the first two statements are true, the third statement is :**

- I. The temperature on Monday was lower than on Tuesday.**
- II. The temperature on Wednesday was lower than on Tuesday.**
- III. The temperature on Monday was higher than on Wednesday**

- A. true
- B. false
- C. uncertain

**Answer:** Option C

**Solution:**

We know from the first two statements that Tuesday had the highest temperature, but we cannot know whether Monday's temperature was higher than Tuesday's

**If the first two statements are true, the third statement is :**

- I. Oat cereal has more fiber than corn cereal but less fiber than bran cereal.**
- II. Corn cereal has more fiber than rice cereal but less fiber than wheat cereal.**
- III. Of the three kinds of cereal, rice cereal has the least amount of fiber.**

- A. true
- B. false

- C. uncertain

**Answer:** Option A

**Solution:**

From the first statement, we know that bran cereal has more fiber than both oat cereal and corn cereal. From the second statement, we know that rice cereal has less fiber than both corn and wheat cereals. Therefore, rice cereal has the least amount of fiber

**If the first two statements are true, the third statement is :**

- I. Martina is sitting in the desk behind Jerome.**
- II. Jerome is sitting in the desk behind Bryant.**
- III. Bryant is sitting in the desk behind Martina.**

- A. true
- B. false
- C. uncertain

**Answer:** Option B

**Solution:**

Given the information in the first two statements, Bryant is sitting in front of both Jerome and Martina, so the third statement must be false

**If the first two statements are true, the third statement is :**

- I. Battery X lasts longer than Battery Y.**
- II. Battery Y doesn't last as long as Battery Z.**
- III. Battery Z lasts longer than Battery X.**

- A. true
- B. false
- C. uncertain

**Answer:** Option C

**Solution:**

The first two statements indicate that Battery Y lasts the least amount of time, but it cannot be determined if Battery Z lasts longer than Battery X

**If the first two statements are true, the third statement is :**

- I. Spot is bigger than King and smaller than Sugar.
- II. Ralph is smaller than Sugar and bigger than Spot.
- III. King is bigger than Ralph.

- A.  true
- B.  false
- C.  uncertain

**Answer:** Option B

**Solution:**

Spot is bigger than King, and Ralph is bigger than Spot. Therefore, King must be smaller than Ralph

**If the first two statements are true, the third statement is :**

- I. Middletown is north of Centerville.
- II. Centerville is east of Penfield.
- III. Penfield is northwest of Middletown.

- A.  true
- B.  false
- C.  uncertain

**Answer:** Option B

**Solution:**

Because the first two statements are true, Penfield is west of Centerville and southwest of Middletown. Therefore, the third statement is false.

**If the first two statements are true, the third statement is :**

- I. All spotted Gangles have long tails.
- II. Short-haired Gangles always have short tails.

**III. Long-tailed Gangles never have short hair.**

- A.  true
- B.  false
- C.  uncertain

**Answer:** Option C

**Solution:**

We know only that long-tailed Gangles have spots. We cannot know for certain if long-tailed Gangles also have short hair.

**If the first two statements are true, the third statement is :**

- I. All spotted Gangles have long tails.
- II. Short-haired Gangles always have short tails.
- III. Long-tailed Gangles never have short hair.

- A.  true
- B.  false
- C.  uncertain

**Answer:** Option C

**Solution:**

We know only that long-tailed Gangles have spots. We cannot know for certain if long-tailed Gangles also have short hair.

**If the first two statements are true, the third statement is :**

- I. All spotted Gangles have long tails.
- II. Short-haired Gangles always have short tails.
- III. Long-tailed Gangles never have short hair.

- A.  true
- B.  false
- C.  uncertain

**Answer:** Option C

**Solution:**

We know only that long-tailed Gangles have spots. We cannot know for certain if long-tailed Gangles also have short hair

**If the first two statements are true, the third statement is :**

- I. All spotted Gangles have long tails.**
- II. Short-haired Gangles always have short tails.**
- III. Long-tailed Gangles never have short hair.**

- A.  true
- B.  false
- C.  uncertain

**Answer:** Option C

**Solution:**

We know only that long-tailed Gangles have spots. We cannot know for certain if long-tailed Gangles also have short hair

**If the first two statements are true, the third statement is :**

- I. All Lamels are Signots with buttons.**
- II. No yellow Signots have buttons.**
- III. No Lamels are yellow.**

- A.  true
- B.  false
- C.  uncertain

**Answer:** Option A

**Solution:**

We know that there are Signots with buttons, or Lamels, and that there are yellow Signots, which have no buttons. Therefore, Lamels do not have buttons and cannot be yellow

**If the first two statements are true, the third statement is :**

- I. The hotel is two blocks east of the drugstore.**
- II. The market is one block west**

**of the hotel.**

**III. The drugstore is west of the market.**

- A.  true
- B.  false
- C.  uncertain

**Answer:** Option A

**Solution:**

The market is one block west of the hotel. The drugstore is two blocks west of the hotel, so the drugstore is west of the market.

**If the first two statements are true, the third statement is :**

- I. A toothpick is useful.**
- II. Useful things are valuable.**
- III. A toothpick is valuable.**

- A.  true
- B.  false
- C.  uncertain

**Answer:** Option A

**Solution:**

To the extent that a toothpick is useful, it has value

**If the first two statements are true, the third statement is :**

- I. Tom puts on his socks before he puts on his shoes.**
- II. He puts on his shirt before he puts on his jacket.**
- III. Tom puts on his shoes before he puts on his shirt.**

- A.  true
- B.  false
- C.  uncertain

**Answer:** Option C

**Solution:**

There is not enough information to verify the third statement

**If the first two statements are true, the third statement is :**

- I. Three pencils cost the same as two erasers.**
- II. Four erasers cost the same as one ruler.**
- III. Pencils are more expensive than rulers.**

- A. true
- B. false
- C. uncertain

**Answer:** Option B

**Solution:**

Rulers are the most expensive item.

**If the first two statements are true, the third statement is :**

- I. Taking the train across town is quicker than taking the bus.**
- II. Taking the bus across town is slower than driving a car.**
- III. Taking the train across town is quicker than driving a car.**

- A. true
- B. false
- C. uncertain

**Answer:** Option C

**Solution:**

Both the car and the train are quicker than the bus, but there is no way to make a comparison between the train and the car.

**If the first two statements are true, the third statement is :**

- I. Cloudy days tend to be more windy than sunny days.**
- II. Foggy days tend to be less windy than cloudy days.**
- III. Sunny days tend to be less windy than foggy days.**

- A. true
- B. false

- C. uncertain

**Answer:** Option C

**Solution:**

Cloudy days are the most windy, but there is not enough information to compare the wind on the foggy days with the wind on the sunny days.

**If the first two statements are true, the third statement is :**

- I. At a parking lot, a sedan is parked to the right of a pickup and to the left of a sport utility vehicle.**
- II. A minivan is parked to the left of the pickup.**
- III. The minivan is parked between the pickup and the sedan.**

- A. true
- B. false
- C. uncertain

**Answer:** Option B

**Solution:**

This is the order of the cars from left to right: minivan, pickup, sedan, sport utility vehicle.

**If the first two statements are true, the third statement is :**

- I. The bookstore has a better selection of postcards than the newsstand does.**
- II. The selection of postcards at the drugstore is better than at the bookstore.**
- III. The drugstore has a better selection of postcards than the bookstore or the newsstand.**

- A. true
- B. false

- C. uncertain

**Answer:** Option A

**Solution:**

Of the three, the drugstore has the best selection of postcards.

**If the first two statements are true, the third statement is :**

- I. A jar of jelly beans contains more red beans than green.
- II. There are more yellow beans than red.
- III. The jar contains fewer yellow jelly beans than green ones.

- A. true

- B. false

- C. uncertain

**Answer:** Option B

**Solution:**

The first two statements indicate there are more yellow jelly beans than red and green.

**Fact 1: All dogs like to run.**

**Fact 2: Some dogs like to swim.**

**Fact 3: Some dogs look like their masters.**

**If the first three statements are facts, which of the following statements must also be a fact?**

- I: All dogs who like to swim look like their masters.
- II: Dogs who like to swim also like to run.
- III: Dogs who like to run do not look like their masters.

- A. I only

- B. II only

- C. II and III only

- D. None of the statements is a known fact.

- E. None of the statements is a known fact.

**Answer:** Option B

**Solution:**

Statement II is the only true statement. Since all dogs like to run, then the ones who like to swim also like to run. There is no support for statement I or statement III.

**Fact 1: Jessica has four children**

**Fact 2: Two of the children have blue eyes and two of the children have brown eyes.**

**Fact 3: Half of the children are girls.**

**If the first three statements are facts, which of the following statements must also be a fact?**

- I: At least one girl has blue eyes.

- II: Two of the children are boys.

- III: The boys have brown eyes.

- A. I only

- B. II only

- C. II and III only

- D. None of the statements is a known fact.

- E. None of the statements is a known fact.

**Answer:** Option B

**Solution:**

Since one-half of the four children are girls, two must be boys. It is not clear which children have blue or brown eyes.

**Fact 1: All drink mixes are beverages.**

**Fact 2: All beverages are drinkable.**

**Fact 3: Some beverages are red.**

**If the first three statements are facts, which of the following statements must also be a fact?**

- I: Some drink mixes are red.
- II: All beverages are drink mixes.
- III: All red drink mixes are drinkable.

- A. I and II only
- B. II only
- C. I and III only
- D. III only
- E. None of the statements is a known fact.

**Answer:** Option D

No explanation is given for this question **Let's Discuss on Board**

**Fact 1: All chickens are birds.**

**Fact 2: Some chickens are hens.**

**Fact 3: Female birds lay eggs.**

**If the first three statements are facts, which of the following statements must also be a fact?**

- I: All birds lay eggs.
- II: Some Hens are birds.
- III: Some chickens are not hens.

- A. I only
- B. II only
- C. II and III only
- D. None of the statements is a known fact.

**Answer:** Option C

**Solution:**

The first statement cannot be true because only female birds lay eggs. Statement II is true because some hens are chickens and all chickens are birds.

Statement III is also true because if only some chickens are hens, then some must not be hens.

**Fact 1: All hats have brims.**

**Fact 2: There are black hats and blue hats.**

**Fact 3: Baseball caps are hats.**

**If the first three statements are facts, which of the following statements must also be a fact?**

- I: All caps have brims.
- II: Some baseball caps are blue.
- III: Baseball caps have no brims.

- A. I only
- B. II only
- C. II and III only
- D. None of the statements is a known fact.

**Answer:** Option D

**Solution:**

All baseball caps have brims, since baseball caps are hats (Fact 3) and all hats have brims (Fact 1). This rules out statement III, but it doesn't follow that all caps, a category that may include caps that are not baseball caps, have brims (statement I). Statement II cannot be confirmed, either, since it is possible, given the information, that all baseball caps are black

**Fact 1: Eyeglass frames cost between \$35 and \$350.**

**Fact 2: Some eyeglass frames are made of titanium.**

**Fact 3: Some eyeglass frames are made of plastic.**

**If the first three statements are facts, which of the following statements must also be a fact?**

- I: Titanium eyeglass frames cost more than plastic frames.

- II: Expensive eyeglass frames last longer than cheap frames.**
- III: Only a few eyeglass frames cost less than \$35.**

- A.  I only
- B.  II only
- C.  II and III only
- D.  None of the statements is a known fact.

**Solution:**

There is no information in the facts to support statements I or II. Statement III is clearly wrong because, according to Fact 1, no frames cost less than \$35.

**Fact 1: Most stuffed toys are stuffed with beans.**

**Fact 2: There are stuffed bears and stuffed tigers.**

**Fact 3: Some chairs are stuffed with beans.**

**If the first three statements are facts, which of the following statements must also be a fact?**

- I: Only children's chairs are stuffed with beans.**
- II: All stuffed tigers are stuffed with beans.**
- III: Stuffed monkeys are not stuffed with beans.**

- A.  I only
- B.  II only
- C.  II and III only
- D.  None of the statements is a known fact.

**Answer: Option D**

**Solution:**

None of the three statements is supported by the known facts.

- Fact 1: Mary said, "Ann and I both have cats."**
- Fact 2: Ann said, "I don't have a cat."**
- Fact 3: Mary always tells the truth, but Ann sometimes lies.**

**If the first three statements are facts, which of the following statements must also be a fact?**

- I: Ann has a cat.**
- II: Mary has a cat.**
- III: Ann is lying.**

- A.  I only
- B.  II only
- C.  I and II only
- D.  All the statements are facts.

**Answer: Option D**

**Solution:**

If Mary always tells the truth, then both Ann and Mary have cats (statements I and II), and Ann is lying (statement III). So all the statements are facts.

**Fact 1: Pictures can tell a story.**

**Fact 2: All storybooks have pictures.**

**Fact 3: Some storybooks have words.**

**If the first three statements are facts, which of the following statements must also be a fact?**

- I: Pictures can tell a story better than words can.**
- II: The stories in storybooks are very simple.**
- III: Some storybooks have both words and pictures.**

- A.  I only

- A. II only
- B. III only
- C. None of the statements is a known fact.

**Answer:** Option C

**Solution:**

Statements I and II are not supported by the facts. Statement III is true because if all story-books have pictures and only some have words, then some storybooks have both words and pictures.

**Fact 1: Some pens don't write.**

**Fact 2: All blue pens write.**

**Fact 3: Some writing utensils are pens.**

**If the first three statements are facts, which of the following statements must also be a fact?**

**I: Some writing utensils don't write.**

**II: Some writing utensils are blue.**

**III: Some blue writing utensils don't write.**

- A. I only
- B. I and II only
- C. II and III only
- D. None of the statements is a known fact.

**Answer:** Option B

**Solution:**

Since some pens don't write, some writing utensils don't write (statement I). Since there are blue pens and since pens are writing utensils, some writing utensils are blue (statement II). There is not enough information to support statement III.

**Fact 1: Islands are surrounded by water.**

**Fact 2: Maui is an island.**

**Fact 3: Maui was formed by a volcano.**

**If the first three statements are facts, which of the following statements must also be a fact?**

**I: Maui is surrounded by water.**

**II: All islands are formed by volcanoes.**

**III: All volcanoes are on islands.**

- A. I only
- B. II only
- C. II and III only
- D. None of the statements is a known fact.

**Answer:** Option A

**Solution:**

Since Maui is an island and islands are surrounded by water, Maui must be surrounded by water. There is not enough information to support statements II and III.

**Fact 1: Robert has four vehicles.**

**Fact 2: Two of the vehicles are red.**

**Fact 3: One of the vehicles is a minivan.**

**If the first three statements are facts, which of the following statements must also be a fact?**

**I: Robert has a red minivan.**

**II: Robert has three cars.**

**III: Robert's favorite color is red.**

- A. I only
- B. II only
- C. II and III only
- D. None of the statements is a known fact.

**Answer:** Option D

**Solution:**

There is not enough information to support any of the statements. Robert is known to have a minivan, but it is not known which of his vehicles is red. Robert may have a pickup or sport utility vehicle, so the second statement cannot be supported. There is no way to know if Robert's favorite color is red (statement III).

**Fact 1: Islands are surrounded by water.**

**Fact 2: Maui is an island.**

**Fact 3: Maui was formed by a volcano.**

**If the first three statements are facts, which of the following statements must also be a fact?**

**I: Maui is surrounded by water.**

**II: All islands are formed by volcanoes.**

**III: All volcanoes are on islands.**

- A. I only
- B. II only
- C. II and III only
- D. None of the statements is a known fact.

**Answer: Option A**

**Solution:**

Since Maui is an island and islands are surrounded by water, Maui must be surrounded by water. There is not enough information to support statements II and III.

**Fact 1: Islands are surrounded by water.**

**Fact 2: Maui is an island.**

**Fact 3: Maui was formed by a volcano.**

**If the first three statements are facts, which of the following statements must also be a fact?**

**I: Maui is surrounded by water.**

**II: All islands are formed by volcanoes.**

**III: All volcanoes are on islands.**

- A. I only
- B. II only
- C. II and III only
- D. None of the statements is a known fact.

**Answer: Option A**

**Solution:**

Since Maui is an island and islands are surrounded by water, Maui must be surrounded by water. There is not enough information to support statements II and III.

**Four defensive football players are chasing the opposing wide receiver, who has the ball.**

**Calvin is directly behind the ball carrier. Jenkins and Burton are side by side behind Calvin. Zeller is behind Jenkins and Burton. Calvin tries for the tackle but misses and falls. Burton trips. Which defensive player tackles the receiver?**

- A. Burton
- B. Zeller
- C. Jenkins
- D. Calvin

**Answer: Option C**

**Solution:**

After all the switching was done, Jenkins was directly behind the receiver. Calvin and Burton had fallen. Zeller remained in the rear.

**A four-person crew from Classic Colors is painting Mr. Field's house. Michael is painting the front of the house. Ross is in the alley behind the house painting the back. Jed is**

**painting the window frames on the north side, Shawn is on the south. If Michael switches places with Jed, and Jed then switches places with Shawn, where is Shawn?**

- A. in the alley behind the house
- B. on the north side of the house
- C. in front of the house
- D. on the south side of the house

**Answer: Option C**

**Solution:**

After all the switches were made, Shawn is in front of the house. Ross is in the alley behind the house, Michael is on the north side, and Jed is on the south.

**In a four-day period Monday through Thursday each of the following temporary office workers worked only one day, each a different day. Ms. Johnson was scheduled to work on Monday, but she traded with Mr. Carter, who was originally scheduled to work on Wednesday. Ms. Falk traded with Mr. Kirk, who was originally scheduled to work on Thursday. After all the switching was done, who worked on Tuesday?**

- A. Mr. Carter
- B. Ms. Falk
- C. Ms. Johnson
- D. Mr. Kirk

**Answer: Option D**

**Solution:**

After all the switches were made, Mr. Kirk worked on Tuesday. Mr. Carter worked on Monday, Ms. Johnson on Wednesday, and Ms. Falk on Thursday.

**Four people witnessed a mugging. Each gave a different description of the mugger. Which description is probably right?**

- A. He was average height, thin, and middle-aged.
- B. He was tall, thin, and middle-aged.
- C. He was tall, thin, and young.
- D. He was tall, of average weight, and middle-aged.

**Answer: Option B**

**Solution:**

Tall, thin, and middle-aged are the elements of the description repeated most often and are therefore the most likely to be accurate.

**57.**

**Ms. Forest likes to let her students choose who their partners will be; however, no pair of students may work together more than seven class periods in a row. Adam and Baxter have studied together seven class periods in a row. Carter and Dennis have worked together three class periods in a row. Carter does not want to work with Adam. Who should be assigned to work with Baxter?**

- A. Carter
- B. Adam
- C. Dennis
- D. Forest

**Answer: Option A**

**Solution:**

Baxter should be assigned to study with Carter. Baxter cannot be assigned with Adam, because they have already been together for seven class periods. If Baxter is assigned to work with Dennis, that would leave Adam with Carter, but Carter does not want to work with Adam.

**58.**

**At the baseball game, Henry was sitting in seat 253. Marla was sitting to the right of Henry in seat 254. In the seat to the left of Henry was George. Inez was sitting to the left of George. Which seat is Inez sitting in?**

- A. 251
- B. 254
- C. 255
- D. 256

**Answer:** Option A

**Solution:**

If George is sitting at Henry's left, George's seat is 252. The next seat to the left, then, is 251.=

**As they prepare for the state championships, one gymnast must be moved from the Level 2 team to the Level 1 team. The coaches will move the gymnast who has won the biggest prize and who has the most experience. In the last competition, Roberta won a bronze medal and has competed seven times before. Jamie has won a silver medal and has competed fewer times than Roberta. Beth has won a higher medal than Jamie and has competed more times than**

**Roberta. Michele has won a bronze medal, and it is her third time competing. Who will be moved to the Level 1 team?**

- A.  Roberta
- B.  Beth
- C.  Michele
- D.  Jamie

**Answer:** Option B

**Solution:**

Beth won the biggest prize, described as a higher medal than Jamie's, which we've been told was a silver medal. Roberta and Michele both won bronze medals, which are lower ranking medals than silver. Beth is also described as having competed more times than Roberta who has competed seven times. Jamie is described as having competed fewer times than Roberta, and Michele has competed three times. Therefore, Beth has competed more times than the others and has won the biggest prize to date.

**Four friends in the sixth grade were sharing a pizza. They decided that the oldest friend would get the extra piece. Randy is two months older than Greg, who is three months younger than Ned. Kent is one month older than Greg. Who should get the extra piece of pizza?**

- A.  Randy
- B.  Greg
- C.  Ned
- D.  Kent

**Answer:** Option C

**Solution:**

If Randy is two months older than Greg, then Ned is three months older than Greg and one month older

than Randy. Kent is younger than both Randy and Ned. Ned is the oldest.

**Four people witnessed a mugging. Each gave a different description of the mugger. Which description is probably right?**

- A.  He was average height, thin, and middle-aged.
- B.  He was tall, thin, and middle-aged.
- C.  He was tall, thin, and young.
- D.  He was tall, of average weight, and middle-aged.

**Solution:**

Tall, thin, and middle-aged are the elements of the description repeated most often and are therefore the most likely to be accurate.

**Ms. Forest likes to let her students choose who their partners will be; however, no pair of students may work together more than seven class periods in a row. Adam and Baxter have studied together seven class periods in a row. Carter and Dennis have worked together three class periods in a row. Carter does not want to work with Adam. Who should be assigned to work with Baxter?**

- A.  Carter
- B.  Adam
- C.  Dennis
- D.  Forest

**Answer: Option A**

**Solution:**

Baxter should be assigned to study with Carter. Baxter cannot be assigned with Adam, because they

have already been together for seven class periods. If Baxter is assigned to work with Dennis, that would leave Adam with Carter, but Carter does not want to work with Adam.

**At the baseball game, Henry was sitting in seat 253. Marla was sitting to the right of Henry in seat 254. In the seat to the left of Henry was George. Inez was sitting to the left of George. Which seat is Inez sitting in?**

- A.  251
- B.  254
- C.  255
- D.  256

**Answer: Option A**

**Solution:**

If George is sitting at Henry's left, George's seat is 252. The next seat to the left, then, is 251.

**As they prepare for the state championships, one gymnast must be moved from the Level 2 team to the Level 1 team. The coaches will move the gymnast who has won the biggest prize and who has the most experience. In the last competition, Roberta won a bronze medal and has competed seven times before. Jamie has won a silver medal and has competed fewer times than Roberta. Beth has won a higher medal than Jamie and has competed more times than Roberta. Michele has won a bronze medal, and it is her third time competing. Who will be moved to the Level 1 team?**

- A. Roberta
- B. Beth
- C. Michele
- D. Jamie

**Answer: Option B**

**Solution:**

Beth won the biggest prize, described as a higher medal than Jamie's, which we've been told was a silver medal. Roberta and Michele both won bronze medals, which are lower ranking medals than silver. Beth is also described as having competed more times than Roberta who has competed seven times. Jamie is described as having competed fewer times than Roberta, and Michele has competed three times. Therefore, Beth has competed more times than the others and has won the biggest prize to date.

**Four friends in the sixth grade were sharing a pizza. They decided that the oldest friend would get the extra piece.  
Randy is two months older than Greg, who is three months younger than Ned. Kent is one month older than Greg. Who should get the extra piece of pizza?**

- A. Randy
- B. Greg
- C. Ned
- D. Kent

**Answer: Option C**

**Solution:**

If Randy is two months older than Greg, then Ned is three months older than Greg and one month older than Randy. Kent is younger than both Randy and Ned. Ned is the oldest.

## **Chapter 12 Statement And Conclusion**

**1.**

**Directions : In each of the following questions a statement is given, followed by two conclusions. Give answer :**

**Statements : In a one day cricket match, the total runs made by a team were 200. Out**

**of these 160 runs were made by spinners.**

**Conclusions :**

- I. 80% of the team consists of spinners.
- II. The opening batsmen were spinners.

- A. Only conclusion I follows
- B. Only conclusion II follows
- C. Either I or II follows
- D. Neither I nor II follows
- E. Both I and II follow

**Answer: Option D**

**Solution:**

According to the statement, 80% of the total runs were made by spinners. So, I does not follow. Nothing about the opening batsmen is mentioned in the statement. So, II also does not follow

**Directions : In each of the following questions a statement is given, followed by two conclusions. Give answer :**

**Statements : The old order changed yielding place to new.**

**Conclusions :**

- I. Change is the law of nature.
- II. Discard old ideas because they are old.

- A. Only conclusion I follows
- B. Only conclusion II follows
- C. Either I or II follows
- D. Neither I nor II follows
- E. Both I and II follow

**Answer: Option A**

**Solution:**

Clearly, I directly follows from the given statement. Also, it is mentioned that old ideas are replaced by new ones, as thinking changes with the progressing time. So, II does not follow.

**Directions : In each of the following questions a statement is given, followed by two conclusions. Give answer :**

**Statements : Government has spoiled many top ranking financial institutions by appointing bureaucrats as Directors of these institutions.**

**Conclusions :**

- I. Government should appoint Directors of the financial institutes taking into consideration the expertise of the person in the area of finance.
- II. The Director of the financial institute should have expertise commensurate with the financial work carried out by the institute.

- A. Only conclusion I follows
- B. Only conclusion II follows
- C. Either I or II follows
- D. Neither I nor II follows
- E. Both I and II follow

**Answer: Option E**

**Solution:**

According to the statement, Government has spoiled financial institutions by appointing bureaucrats as Directors. This means that only those persons should be appointed as Directors who are

experts in finance and are acquainted with the financial work of the institute. So, both I and II follow.

**Directions : In each of the following questions a statement is given, followed by two conclusions. Give answer :**

**Statements :** Population increase coupled with depleting resources is going to be the scenario of many developing countries in days to come.

**Conclusions :**

- I. The population of developing countries will not continue to increase in future.
- II. It will be very difficult for the governments of developing countries to provide its people decent quality of life.

- A. Only conclusion I follows
- B. Only conclusion II follows
- C. Either I or II follows
- D. Neither I nor II follows
- E. Both I and II follow

**Answer: Option B**

**Solution:**

The fact given in I is quite contrary to the given statement. So, I does not follow. II mentions the direct implications of the state discussed in the statement. Thus, II follows

**Directions : In each of the following questions a statement is given, followed by two conclusions. Give answer :**

**Statements :** Prime age school-

going children in urban India have now become avid as well as more regular viewers of television, even in households without a TV. As a result there has been an alarming decline in the extent of readership of newspapers.

**Conclusions :**

- I. Method of increasing the readership of newspapers should be devised.
- II. A team of experts should be sent to other countries to study the impact of TV. on the readership of newspapers.

- A. Only conclusion I follows
- B. Only conclusion II follows
- C. Either I or II follows
- D. Neither I nor II follows
- E. Both I and II follow

**Answer: Option D**

**Solution:**

The statement concentrates on the increasing viewership of TV. and does not stress either on increasing the readership of newspapers or making studies regarding the same. So, neither I nor II follows

**Directions : In each of the following questions a statement is given, followed by two conclusions. Give answer :**

**Statements :** In Japan, the incidence of stomach cancer is very high, while that of bowel cancer is very low. But

**Japanese immigrate to Hawaii, this is reversed - the rate of bowel cancer increases but the rate of stomach cancer is reduced in the next generation. All this is related to nutrition - the diets of Japanese in Hawaii are different than those in Japan.**

**Conclusions :**

- I. The same diet as in Hawaii should be propagated in Japan also.**
- II. Bowel cancer is less severe than stomach cancer.**

- A. Only conclusion I follows
- B. Only conclusion II follows
- C. Either I or II follows
- D. Neither I nor II follows
- E. Both I and II follow

**Answer: Option D**

**Solution:**

The statement neither propagates the diet of any of the countries nor compares the two types of cancer. So, neither I nor II follows

**Directions : In each of the following questions a statement is given, followed by two conclusions. Give answer :**

**Statements : The Government run company had asked its employees to declare their income and assets but it has been strongly resisted by employees union and no employee is going to declare**

**his income.**

**Conclusions :**

- I. The employees of this company do not seem to have any additional undisclosed income besides their salary.**
- II. The employees union wants all senior officers to declare their income first.**

- A. Only conclusion I follows
- B. Only conclusion II follows
- C. Either I or II follows
- D. Neither I nor II follows
- E. Both I and II follow

**Answer: Option D**

**Solution:**

Nothing about the details of the employees' income or the cause of their refusal to declare their income and assets, can be deduced from the given statement. So, neither I nor II follows.

**Directions : In each of the following questions a statement is given, followed by two conclusions. Give answer :**

**Statements : Monitoring has become an integral part in the planning of social development programmes. It is recommended that Management Information System be developed for all programmes. This is likely to give a feedback on the performance of the functionaries and the efficacy with which services are being**

delivered.

**Conclusions :**

- I. All the social development programmes should be evaluated.**
- II. There is a need to monitor the performance of workers.**

- A. Only conclusion I follows
- B. Only conclusion II follows
- C. Either I or II follows
- D. Neither I nor II follows
- E. Both I and II follow

**Answer: Option E**

**Solution:**

According to the statement, monitoring and evaluation of social development programmes - their function, performance and efficiency - is absolutely essential. So, both I and II follow.

**Directions : In each of the following questions a statement is given, followed by two conclusions. Give answer :**

**Statements :** The T.V. programmes, telecast specially for women are packed with a variety of recipes and household hints. A major portion of magazines for women also contains the items mentioned above.

**Conclusions :**

- I. Women are not interested in other things.**
- II. An average woman's primary**

**interest lies in home and specially in the kitchen.**

- A. Only conclusion I follows
- B. Only conclusion II follows
- C. Either I or II follows
- D. Neither I nor II follows
- E. Both I and II follow

**Answer: Option B**

**Solution:**

Clearly, nothing about 'other things' is mentioned in the statement. So, I does not follow. Also, since it is mentioned that programmes and magazines for women are stuffed with kitchen recipes and other household hints, it means that women have special interest in these areas. So, II follows.

**Directions : In each of the following questions a statement is given, followed by two conclusions. Give answer :**

**Statements : The distance of 900 km by road between Bombay and Jafra will be reduced to 280 km by sea. This will lead to a saving of Rs. 7.92 crores per annum on fuel.**

**Conclusions :**

- I. Transportation by sea is cheaper than that by road.**
- II. Fuel must be saved to the greatest extent**

- A. Only conclusion I follows
- B. Only conclusion II follows
- C. Either I or II follows
- D. Neither I nor II follows
- E. Both I and II follow

**Answer: Option B**

**Solution:**

According to the statement, sea transport is cheaper than road transport in the case of route from Bombay to Jafra, not in all the cases. So, conclusion I does not follow. The statement stresses on the saving of fuel. So, conclusion II follows.

**Directions : In each of the following questions a statement is given, followed by two conclusions. Give answer :**

**Statements :** People who speak too much against dowry are those who had taken it themselves.

**Conclusions :**

- I. It is easier said than done.
- II. People have double standards.

- A. Only conclusion I follows
- B. Only conclusion II follows
- C. Either I or II follows
- D. Neither I nor II follows
- E. Both I and II follow

**Answer:** Option E

**Solution:**

The statement clearly implies that it is easier to say than to do something and what people say is different from what they do. So, both I and II follow.

**Directions : In each of the following questions a statement is given, followed by two conclusions. Give answer :**

**Statements :** The national norm is 100 beds per thousand populations but in this state,

**150 beds per thousand are available in the hospitals.**

**Conclusions :**

- I. Our national norm is appropriate.
- II. The state's health system is taking adequate care in this regard.

- A. Only conclusion I follows
- B. Only conclusion II follows
- C. Either I or II follows
- D. Neither I nor II follows
- E. Both I and II follow

**Answer:** Option B

**Solution:**

Whether the national norm is appropriate or not cannot be said. So, I does not follow. However, more number of beds per thousand population are available in the state. So, II follows.

**Directions : In each of the following questions a statement is given, followed by two conclusions. Give answer :**

**Statements :** Our securities investments carry market risk. Consult your investment advisor or agent before investing.

**Conclusions :**

- I. One should not invest in securities.
- II. The investment advisor calculates the market risk with certainty.

- A. Only conclusion I follows

- B. Only conclusion II follows
- C. Either I or II follows
- D. Neither I nor II follows
- E. Both I and II follow

**Answer: Option B**

**Solution:**

Investment in securities involves risk. This does not mean that one should not invest in securities. So, I does not follow. Since the statement advises one to consult investment advisor before investing, so II follows.

**Directions : In each of the following questions a statement is given, followed by two conclusions. Give answer :**

**Statements : Money plays a vital role in politics.**

**Conclusions :**

- I. The poor can never become politicians.**
- II. All the rich men take part in politics.**

- A. Only conclusion I follows
- B. Only conclusion II follows
- C. Either I or II follows
- D. Neither I nor II follows
- E. Both I and II follow

**Answer: Option D**

**Solution:**

Neither the poor nor the rich, but only the role of money in politics is being talked about in the statement. So, neither I nor II follows.

**Directions : In each of the following questions a statement is given, followed by two conclusions. Give answer :**

**Statements : Vegetable prices are soaring in the market.**

**Conclusions :**

- I. Vegetables are becoming a rare commodity.**
- II. People cannot eat vegetables.**

- A. Only conclusion I follows
- B. Only conclusion II follows
- C. Either I or II follows
- D. Neither I nor II follows
- E. Both I and II follow

**Solution: D**

The availability of vegetables is not mentioned in the given statement. So, I does not follow. Also, II is not directly related to the statement and so it also does not follow.

**Directions : In each of the following questions a statement is given, followed by two conclusions. Give answer :**

**Statements : Recent trends also indicate that the number of child migrants in large cities is increasing. These children leave their families to join the ranks of urban poor doing odd jobs in markets, workshops, hotels or in service sectors.**

**Conclusions :**

- I. Migration to big cities should be checked.**
- II. The plight of poor children should be thoroughly studied.**

- A. Only conclusion I follows
- B. Only conclusion II follows
- C. Either I or II follows
- D. Neither I nor II follows
- E. Both I and II follow

**Answer:** Option D

**Solution:**

The statement mentions the problem of increased migration of children to cities. But the ways to deal with the problem cannot be deduced from it. So, neither I nor II follows.

**Directions : In each of the following questions a statement is given, followed by two conclusions. Give answer :**

**Statements : No country is absolutely self-dependent these days.**

**Conclusions :**

- I. It is impossible to grow and produce all that a country needs.**
- II. Countrymen in general have become lazy.**

- A. Only conclusion I follows
- B. Only conclusion II follows
- C. Either I or II follows
- D. Neither I nor II follows
- E. Both I and II follow

**Answer:** Option A

**Solution:**

Clearly, only I provides a suitable explanation to the given statement. So, only I follows.

**Directions : In each of the following questions a statement is given, followed by two**

**conclusions. Give answer :**

**Statements : The percentage of the national income shared by the top 10 per cent of households in India is 35.**

**Conclusions :**

- I. When an economy grows fast, concentration of wealth in certain pockets of population takes place.**
- II. The national income is unevenly distributed in India.**

- A. Only conclusion I follows
- B. Only conclusion II follows
- C. Either I or II follows
- D. Neither I nor II follows
- E. Both I and II follow

**Answer:** Option B

**Solution:**

Nothing about the growth of economy is mentioned in the statement. So, I does not follow. Also, it is given that 35 per cent of national income is shared by 10 per cent of households. This indicates unequal distribution. So, II follows.

**Directions : In each of the following questions a statement is given, followed by two conclusions. Give answer :**

**Statements : Players who break various records in a fair way get special prizes. Player X broke the world record but was found to be under the influence of a prohibited drug.**

### **Conclusions :**

- I. X will get the special prize.**  
**II. X will not get the special prize.**

- A. Only conclusion I follows
- B. Only conclusion II follows
- C. Either I or II follows
- D. Neither I nor II follows
- E. Both I and II follow

**Answer: Option B**

#### **Solution:**

Clearly, X will not get the special prize because although he broke the world record, he was found to use unfair means. So, II follows while I does not.

**Directions : In each of the following questions a statement is given, followed by two conclusions. Give answer :**

**Statements :** Company X has marketed the product. Go ahead; purchase it if price and quality are your considerations.

### **Conclusions :**

- I. The product must be good in quality.**  
**II. The price of the product must be reasonable.**

- A. Only conclusion I follows
- B. Only conclusion II follows
- C. Either I or II follows
- D. Neither I nor II follows
- E. Both I and II follow

**Answer: Option E**

#### **Solution:**

It is mentioned in the statement that one who considers price and quality before buying a product

should buy the product of company X. So, both I and II follow.

**Television convinces viewers that the likelihood of their becoming the victim of a violent crime is extremely high; at the same time by its very nature, TV persuades viewers to passively accept whatever happens to them.**

- A. TV viewing promotes criminal behaviour.
- B. TV viewers are most likely to be victimized than others.
- C. People should not watch TV.
- D. TV promotes a feeling of helpless vulnerability in viewers.
- E. None of these.

**Answer: Option D**

No explanation is given for this question **Let's Discuss on Board**

**A forest has as many sandal trees as it has Ashoka trees. Three-fourth of the trees are old ones and half of the trees are at the flowering stage.**

- A. All Ashoka trees are at the flowering stage.
- B. All sandal trees are at the flowering stage.
- C. At least one-half of the Ashoka trees are old.
- D. One-half of the sandal trees are at the flowering stage.
- E. None of these.

**Answer: Option E**

No explanation is given for this question **Let's Discuss on Board**

**The government is soon going to introduce a bill which would permit the instituting of private**

## **universities under very strict directions.**

- A. We have some private universities in our country even now.
- B. The demand for more universities is being stepped up.
- C. Such directions can also be issued without informing the Parliament.
- D. The government gives directions to establish anything in private sector.
- E. Unless and until the directions are given, the private universities can charge exorbitant fees.

**Answer: Option B**

No explanation is given for this question **Let's Discuss on Board**

## **All that glitters is not gold.**

- A. Non-metals also glitter.
- B. Only gold glitters.
- C. Not all metals glitter.
- D. Glittering things may be deceptive.
- E. Two-fifth of the boys play only football.

**Answer: Option D**

No explanation is given for this question **Let's Discuss on Board**

## **Most dresses in that shop are expensive.**

- A. There are no cheap dresses available in that shop.
- B. Handloom dresses in that shop are cheap.
- C. There are cheap dresses also in that shop.
- D. Some dresses in that shop are expensive.
- E. Two-fifth of the boys play only football.

**Answer: Option C**

No explanation is given for this question **Let's Discuss on Board**

## **All the books, written by Prabhakar, are textbooks. Some**

## **of his books are published by ABC Publishing Company.**

- A. ABC Publishing Company publishes textbooks only.
- B. Some textbooks written by Prabhakar are published by publishers other than ABC Publishing Company.
- C. ABC Publishing Company publishes some critical essays written by Prabhakar.
- D. All the books published by ABC Publishing Company have been written by Prabhakar.

**Answer: Option B**

No explanation is given for this question **Let's Discuss on Board**

## **All students in my class are bright. Manish is not bright.**

- A. Some students are not bright.
- B. Manish must work hard.
- C. Non-bright ones are not students.
- D. Manish is not a student of my class.

**Answer: Option D**

No explanation is given for this question **Let's Discuss on Board**

## **During the Puja days', people visit those houses where 'puja' is performed. They make it a point to go even if they are not invited. Manmohan visited the house of Keshav, his office colleague, during 'puja days'.**

- A. Keshav had invited Manmohan for some other function
- B. Manmohan, being a religious man, went to Keshav
- C. In Keshav
- D. Manmohan was invited by Keshav

**Answer: Option D**

No explanation is given for this question **Let's Discuss on Board**

**All guilty politicians were arrested. Kishan and Chander were among those arrested.**

- A. All politicians are guilty.
- B. All arrested people are politicians.
- C. Kishan and Chander were not politicians.
- D. Kishan and Chander were guilty.

**Answer: Option D**

No explanation is given for this question **Let's Discuss on Board**

**In the university examination, most of the candidates write in Hindi medium.**

- A. Some candidates of this examination write in Hindi.
- B. Mostly candidates with Hindi medium appear in this examination.
- C. In this examination no candidate writes answers in medium other than Hindi,
- D. All the candidates who appear in this examination write answers in Hindi.

**Answer: Option B**

No explanation is given for this question **Let's Discuss on Board**

- B. stockpile
- C. tractor
- D. crop

**Answer: Option D**

**Solution:**

To harvest something, one must have a crop, which is the essential element for this item. Autumn (choice a) is not the only time crops are harvested. There may not be enough of a crop to stockpile (choice b), and you can harvest crops without a tractor (choice c).

**2.**

**Choose the word that is a necessary part of the underlined word.**

desert

- A. cactus
- B. arid
- C. oasis
- D. flat

**Answer: Option B**

**Solution:**

A desert is an arid tract of land. Not all deserts are flat (choice d). Not all deserts have cacti or oases (choices a and c).

**3.**

**Choose the word that is a necessary part of the underlined word.**

book

- A. fiction
- B. pages
- C. pictures
- D. learning

**Answer: Option B**

**Solution:**

The necessary part of a book is its pages; there is no book without pages. Not all books are fiction (choice a), and not all books have pictures (choice

## Chapter 13 Essential Part

**Choose the word that is a necessary part of the underlined word.**

harvest

- A. autumn

c). Learning (choice d) may or may not take place with a book

4.

### Choose the word that is a necessary part of the underlined word.

#### language

- A. tongue
- B. slang
- C. writing
- D. words

**Answer:** Option D

**Solution:**

Words are a necessary part of language. Slang is not necessary to language (choice b). Not all languages are written (choice c). Not all languages are spoken (choice a).

5.

### Choose the word that is a necessary part of the underlined word.

#### school

- A. student
- B. report card
- C. test
- D. learning

**Answer:** Option A

**Solution:**

Without students, a school cannot exist; therefore, students are the essential part of schools. The other choices may be related, but they are not essential.

6.

### Choose the word that is a necessary part of the underlined word.

#### pain

- A. cut
- B. burn
- C. nuisance

- D. hurt

**Answer:** Option D

**Solution:**

Pain is suffering or hurt, so choice d is the essential element. Without hurt, there is no pain. A cut (choice a) or a burn (choice b) may cause pain, but so do many other types of injury. A nuisance (choice c) is an annoyance that may or may not cause pain.

### Choose the word that is a necessary part of the underlined word.

#### gala

- A. celebration
- B. tuxedo
- C. appetizer
- D. orator

**Answer:** Option A

**Solution:**

A gala indicates a celebration, the necessary element here. A tuxedo (choice b) is not required garb at a gala, nor is an appetizer (choice c). A gala may be held without the benefit of anyone speaking (choice d).

### Choose the word that is a necessary part of the underlined word.

#### monopoly

- A. corrupt
- B. exclusive
- C. rich
- D. gigantic

**Answer:** Option B

**Solution:**

The essential part of a monopoly is that it involves exclusive ownership or control.

### Choose the word that is a necessary part of the underlined word.

#### guitar

- A. band
- B. teacher
- C. songs
- D. strings

**Answer:** Option D

**Solution:**

A guitar does not exist without strings, so strings are an essential part of a guitar. A band is not necessary to a guitar (choice a). Guitar playing can be learned without a teacher (choice b). Songs are byproducts of a guitar (choice c).

**Choose the word that is a necessary part of the underlined word.**  
election

- A. president
- B. voter
- C. November
- D. nation

**Solution:**

An election does not exist without voters. The election of a president (choice a) is a byproduct. Not all elections are held in November (choice c), nor are they nationwide (choice d).

**11. Choose the word that is a necessary part of the underlined word.**  
shoe

- A. sole
- B. leather
- C. laces
- D. walking

**Answer:** Option A

**Solution:**

All shoes have a sole of some sort. Not all shoes are made of leather (choice b); nor do they all have laces (choice c). Walking (choice d) is not essential to a shoe.

**Choose the word that is a necessary part of the underlined word.**  
swimming

- A. pool
- B. bathing suit
- C. water
- D. life jacket

**Answer:** Option C

**Solution:**

Water is essential for swimming-without water, there is no swimming. The other choices are things that may or may not be present.

**Choose the word that is a necessary part of the underlined word.**  
lightning

- A. electricity
- B. thunder
- C. brightness
- D. rain

**Answer:** Option A

**Solution:**

Lightning is produced from a discharge of electricity, so electricity is essential. Thunder and rain are not essential to the production of lightning (choices b and d). Brightness may be a byproduct of lightning, but it is not essential (choice

c.)**Choose the word that is a necessary part of the underlined word.**  
shoe

- A. sole
- B. leather
- C. laces
- D. walking

**Answer:** Option A

**Solution:**

All shoes have a sole of some sort. Not all shoes are made of leather (choice b); nor do they all have laces (choice c). Walking (choice d) is not essential to a shoe.

### Choose the word that is a necessary part of the underlined word. ovation

- A. outburst
- B. bravo
- C. applause
- D. encore

**Answer:** Option C

**Solution:**

An ovation is prolonged, enthusiastic applause, so applause is necessary to an ovation. An outburst (choice a) may take place during an ovation; "bravo" (choice b) may or may not be uttered; and an encore (choice d) would take place after an ovation.

### Choose the word that is a necessary part of the underlined word. bonus

- A. reward
- B. raise
- C. cash
- D. employer

**Answer:** Option A

**Solution:**

A bonus is something given or paid beyond what is usual or expected, so reward is the essential element. A bonus may not involve a raise in pay or cash (choices b and c), and it may be received from someone other than an employer (choice d).

### Choose the word that is a necessary part of the underlined word. antique

- A. rarity

- B. artifact
- C. aged
- D. prehistoric

**Answer:** Option C

**Solution:**

An antique is something that belongs to, or was made in, an earlier period. It may or may not be a rarity (choice a), and it does not have to be an artifact, an object produced or shaped by human craft (choice b). An antique is old but does not have to be prehistoric (choice d)

### Choose the word that is a necessary part of the underlined word. culture

- A. civility
- B. education
- C. agriculture
- D. customs

**Answer:** Option D

**Solution:**

A culture is the behavior pattern of a particular population, so customs are the essential element. A culture may or may not be civil or educated (choices a and b). A culture may be an agricultural society (choice c), but this is not the essential element.

### Choose the word that is a necessary part of the underlined word. knowledge

- A. school
- B. teacher
- C. textbook
- D. learning

**Answer:** Option D

**Solution:**

Knowledge is understanding gained through experience or study, so learning is the essential element. A school (choice a) is not necessary for

learning or knowledge to take place, nor is a teacher or a textbook (choices b and c).

### Choose the word that is a necessary part of the underlined word.

#### domicile

- A. tenant
- B. dwelling
- C. kitchen
- D. house

**Answer:** Option B

#### **Solution:**

A domicile is a legal residence, so dwelling is the essential component for this item. You do not need a tenant (choice a) in the domicile, nor do you need a kitchen (choice c). A house (choice d) is just one form of a domicile (which could also be a tent, hogan, van, camper, motor home, apartment, dormitory, etc.).

### Choose the word that is a necessary part of the underlined word.

#### vertebrate

- A. backbone
- B. reptile
- C. mammal
- D. animal

**Answer:** Option A

#### **Solution:**

All vertebrates have a backbone. Reptiles (choice b) are vertebrates, but so are many other animals. Mammals (choice c) are vertebrates, but so are birds and reptiles. All vertebrates (choice d) are animals, but not all animals are vertebrates.

### Choose the word that is a necessary part of the underlined word.

#### itinerary

- A. map
- B. route

- C. travel

- D. guidebook

**Answer:** Option B

#### **Solution:**

An itinerary is a proposed route of a journey. A map (choice a) is not necessary to have a planned route. Travel (choice c) is usually the outcome of an itinerary, but not always. A guidebook (choice d) may be used to plan the journey but is not essential.

### Choose the word that is a necessary part of the underlined word.

#### orchestra

- A. violin
- B. stage
- C. musician
- D. soloist

**Answer:** Option C

#### **Solution:**

An orchestra is a large group of musicians, so musicians are essential. Although many orchestras have violin sections, violins aren't essential to an orchestra (choice a). Neither a stage (choice b) nor a soloist (choice d) is necessary.

### Choose the word that is a necessary part of the underlined word.

#### facsimile

- A. picture
- B. image
- C. mimeograph
- D. copier

**Answer:** Option B

#### **Solution:**

A facsimile must involve an image of some sort. The image or facsimile need not, however, be a picture (choice a). A mimeograph and a copier machine (choices c and d) are just two of the ways that images may be produced, so they do not qualify as the essential element for this item.

**Choose the word that is a necessary part of the underlined word.**

**provisions**

- A. groceries
- B. supplies
- C. gear
- D. caterers

**Answer:** Option B

**Solution:**

Provisions imply the general supplies needed, so choice b is the essential element. The other choices are byproducts, but they are not essential.

**Choose the word that is a necessary part of the underlined word.**

**sustenance**

- A. nourishment
- B. water
- C. grains
- D. menu

**Answer:** Option A

**Solution:**

Sustenance is something, especially food, that sustains life or health, so nourishment is the essential element. Water and grains (choices b and c) are components of nourishment, but other things can be taken in as well. A menu (choice d) may present a list of foods, but it is not essential to sustenance.

**Choose the word that is a necessary part of the underlined word.**

**infirmary**

- A. surgery
- B. disease
- C. patient
- D. receptionist

**Answer:** Option C

**Solution:**

An infirmary is a place that takes care of the infirm, sick, or injured. Without patients, there is no infirmary. Surgery (choice a) may not be required for patients. A disease (choice b) is not necessary because the infirmary may only see patients with injuries. A receptionist (choice d) would be helpful but not essential.

**Choose the word that is a necessary part of the underlined word.**

**purchase**

- A. trade
- B. money
- C. bank
- D. acquisition

**Answer:** Option D

**Solution:**

A purchase is an acquisition of something. A purchase may be made by trade (choice a) or with money (choice b), so those are not essential elements. A bank (choice c) may or may not be involved in a purchase.

**Choose the word that is a necessary part of the underlined word.**

**dimension**

- A. compass
- B. ruler
- C. inch
- D. measure

**Answer:** Option D

**Solution:**

A dimension is a measure of spatial content. A compass (choice a) and ruler (choice b) may help determine dimension, but other instruments may also be used, so these are not the essential element here. An inch (choice c) is only one way to determine a dimension..

**Choose the word that is a necessary part of the underlined word.**

**wedding**

- A. love
- B. church
- C. ring
- D. marriage

**Answer:** Option D

**Solution:**

A wedding results in a joining, or a marriage, so choice d is the essential element. Love (choice a) usually precedes a wedding, but it is not essential. A wedding may take place anywhere, so a church (choice b) is not required. A ring (choice c) is often used in a wedding, but it is not necessary

**Choose the word that is a necessary part of the underlined word.**

**faculty**

- A. buildings
- B. textbooks
- C. teachers
- D. meetings

**Answer:** Option C

**Solution:**

A faculty consists of a group of teachers and cannot exist without them. The faculty may work in buildings (choice a), but the buildings aren't essential. They may use textbooks (choice b) and attend meetings (choice d), but these aren't essential either

**Choose the word that is a necessary part of the underlined word.**

**recipe**

- A. desserts
- B. directions
- C. cookbook

- D. utensils

**Answer:** Option B

**Solution:**

A recipe is a list of directions to make something. Recipes may be used to prepare desserts (choice a), among other things. One does not need a cookbook (choice c) to have a recipe, and utensils (choice d) may or may not be used to make a recipe.

**Choose the word that is a necessary part of the underlined word.**

**autograph**

- A. athlete
- B. actor
- C. signature
- D. pen

**Answer:** Option C

**Solution:**

Without a signature, there is no autograph. Athletes and actors (choices a and b) may sign autographs, but they are not essential. An autograph can be signed with something other than a pen (choice d).

**Choose the word that is a necessary part of the underlined word.**

**cage**

- A. enclosure
- B. prisoner
- C. animal
- D. zoo

**Answer:** Option A

**Solution:**

A cage is meant to keep something surrounded, so enclosure is the essential element. A prisoner (choice b) or an animal (choice c) are two things that may be kept in cages, among many other things. A zoo (choice d) is only one place that has cages.

**Choose the word that is a necessary part of the**

## **underlined word.** **champion**

- A.  running
- B.  swimming
- C.  winning
- D.  speaking

**Answer:** Option C

### **Solution:**

Without a first-place win, there is no champion, so winning is essential. There may be champions in running, swimming, or speaking, but there are also champions in many other areas

## **Choose the word that is a necessary part of the underlined word.**

### **saddle**

- A.  horse
- B.  seat
- C.  stirrups
- D.  horn

**Answer:** Option B

### **Solution:**

A saddle is something one uses to sit on an animal, so it must have a seat (choice b). A saddle is often used on a horse (choice a), but it may be used on other animals. Stirrups (choice c) are often found on a saddle but may not be used. A horn (choice d) is found on Western saddles, but not English saddles, so it is not the essential element here.

## **Choose the word that is a necessary part of the underlined word.**

### **dome**

- A.  rounded
- B.  geodesic
- C.  governmental
- D.  coppery

**Answer:** Option A

### **Solution:**

A dome is a large rounded roof or ceiling, so being rounded is essential to a dome. A geodesic dome (choice b) is only one type of dome. Some, but not all domes, have copper roofs (choice d). Domes are often found on government buildings (choice c), but domes exist in many other places.

## **Choose the word that is a necessary part of the underlined word.**

### **glacier**

- A.  mountain
- B.  winter
- C.  prehistory
- D.  ice

**Answer:** Option D

### **Solution:**

A glacier is a large mass of ice and cannot exist without it. A glacier can move down a mountain, but it can also move across a valley or a plain, which rules out choice a. Glaciers exist in all seasons, which rules out choice b. There are many glaciers in the world today, which rules out choice c.

## **Choose the word that is a necessary part of the underlined word.**

### **directory**

- A.  telephone
- B.  listing
- C.  computer
- D.  names

**Answer:** Option B

### **Solution:**

A directory is a listing of names or things, so (choice b) is the essential element. A telephone (choice a) often has a directory associated with it, but it is not essential. A computer (choice c) uses a directory format to list files, but it is not required. Names (choice d) are often listed in a directory, but many other things are listed in directories, so this is not the essential element.

**Choose the word that is a necessary part of the underlined word.**

**contract**

- A. agreement
- B. document
- C. written
- D. attorney

**Answer:** Option A

**Solution:**

An agreement is necessary to have a contract. A contract may appear on a document (choice b), but it is not required. A contract may be oral as well as written, so choice c is not essential. A contract can be made without an attorney (choice d).

**Choose the word that is a necessary part of the underlined word.**

**hurricane**

- A. beach
- B. cyclone
- C. damage
- D. wind

**Answer:** Option D

**Solution:**

A hurricane cannot exist without wind. A beach is not essential to a hurricane (choice a). A hurricane is a type of cyclone, which rules out (choice b). Not all hurricanes cause damage (choice c).

**Choose the word that is a necessary part of the underlined word.**

**town**

- A. residents
- B. skyscrapers
- C. parks
- D. libraries

**Answer:** Option A

**Solution:**

Residents must be present in order to have a town. A town may be too small to have skyscrapers (choice b). A town may or may not have parks (choice c) and libraries (choice d), so they are not the essential elements.

**Choose the word that is a necessary part of the underlined word.**

**vibration**

- A. motion
- B. electricity
- C. science
- D. sound

**Answer:** Option A

**Solution:**

Something cannot vibrate without creating motion, so motion is essential to vibration.

## Chapter 14 Arithmetic

### Reasoning

**The total of the ages of Amar, Akbar and Anthony is 80 years. What was the total of their ages three years ago ?**

- A. 71 years
- B. 72 years
- C. 74 years
- D. 77 years

**Answer:** Option A

**Solution:**

Required sum =  $(80 - 3 \times 3)$  years =  $(80 - 9)$  years = 71 year

**Two bus tickets from city A to B and three tickets from city A to C cost Rs. 77 but three tickets from city A to B and two tickets from city A to C cost Rs. 73. What are the fares for cities B and C from A ?**

- A. Rs. 4, Rs. 23
- B. Rs. 13, Rs. 17
- C. Rs. 15, Rs. 14
- D. Rs. 17, Rs. 13

**Answer:** Option B

**Solution:**

Let Rs.  $x$  be the fare of city B from city A and Rs.  $y$  be the fare of city C from city A.

Then,  $2x + 3y = 77$  ...(i) and

$3x + 2y = 73$  ... (ii)

Multiplying (i) by 3 and (ii) by 2 and subtracting, we get:  $5y = 85$  or  $y = 17$ .

Putting  $y = 17$  in (i), we get:  $x = 13$ .

**An institute organised a fete and  $1/5$  of the girls and  $1/8$  of the boys participated in the same. What fraction of the total number of students took part in the fete ?**

- A.  $2/13$
- B.  $13/40$
- C. Data inadequate
- D. None of these

**Answer:** Option C

No explanation is given for this question **Let's Discuss on Board** A number of friends decided to go on a picnic and planned to spend Rs. 96 on eatables. Four of them, however, did not turn up. As a consequence, the remaining ones had to contribute Rs. 4 each extra. The number of those who attended the picnic was

- A. 8
- B. 12
- C. 16

D. 24

**Answer:** Option A

**Solution:**

Let the number of persons be  $x$ . Then,

$$\frac{96}{x-4} - \frac{96}{x} = 4 \Leftrightarrow \frac{1}{x-4} - \frac{1}{x} = \frac{4}{96} \Leftrightarrow \frac{x}{(x-4)x} = \frac{4}{96} \Leftrightarrow x^2 - 4x - 96 = 0 \Leftrightarrow (x+8)(x-12) = 0$$

So, required number  $= x - 4 = 8$ .

A, B, C, D and E play a game of cards. A says to B, "If you give me three cards, you will have as many as E has and if I give you three cards, you will have as many as D has." A and B together have 10 cards more than what D and E together have. If B has two cards more than what C has and the total number of cards be 133, how many cards does B have ?

A. 22

B. 23

C. 25

D. 35

**Answer:** Option C

**Solution:**

Clearly, we have :

$$B - 3 = E \dots (i)$$

$$B + 3 = D \dots (ii)$$

$$A + B = D + E + 10 \dots (iii)$$

$$B = C + 2 \dots (iv)$$

$$A + B + C + D + E = 133 \dots (v)$$

$$\text{From (i) and (ii), we have : } 2B = D + E \dots (vi)$$

$$\text{From (iii) and (vi), we have : } A = B + 10 \dots (vii)$$

Using (iv), (vi) and (vii) in (v), we get:

$$(B + 10) + B + (B - 2) + 2B = 133 \Leftrightarrow 5B = 125 \Leftrightarrow$$

**B = 25 pineapple costs Rs. 7 each.**

**A watermelon costs Rs. 5 each. X spends Rs. 38 on these fruits. The number of pineapples purchased is**

A. 2

B. 3

C. 4

D. Data inadequate

**Answer:** Option C

**Solution:**

Let the number of pineapples and watermelons be  $x$  and  $y$  respectively.

$$7x + 5y = 38 \text{ or } 5y = (38 - 7x) \text{ or } y = \frac{38 - 7x}{5}$$

Clearly,  $y$  is a whole number, only when  $38 - 7x$  is divisible by 5.

This happens when  $x = 4$ .

**A woman says, "If you reverse my own age, the figures represent my husband's age. He is, of course, senior to me and the difference between our ages is one-eleventh of their sum." The woman's age is**

A. 23 years

- A. 34 years
- C. 45 years
- D. None of these

**Answer:** Option C

**Solution:**

Let  $x$  and  $y$  be the ten's and unit's digits respectively of the numeral denoting the woman's age.

Then, woman's age =  $(10X + y)$  years; husband's age =  $(10y + x)$  years.

Therefore  $(10y + x) - (10X + y) = (1/11)(10y + x + 10x + y)$

$$\Leftrightarrow (9y - 9x) = (1/11)(11y + 11x) = (x + y) \Leftrightarrow 10x = 8y \Leftrightarrow x = (4/5)y$$

Clearly,  $y$  should be a single-digit multiple of 5, which is 5.

So,  $x = 4$ ,  $y = 5$ .

Hence, woman's age =  $10x + y = 45$  years.

**8.**

**A girl counted in the following way on the fingers of her left hand : She started by calling the thumb 1, the index finger 2, middle finger 3, ring finger 4, little finger 5 and then reversed direction calling the ring finger 6, middle finger 7 and so on. She counted upto 1994. She ended counting on which finger ?**

- A. Thumb
- B. Index finger
- C. Middle finger
- D. Ring finger

**Answer:** Option B

**Solution:**

Clearly, while counting, the numbers associated to the thumb will be : 1, 9, 17, 25,.....

i.e. numbers of the form  $(8n + 1)$ .

Since  $1994 = 249 \times 8 + 2$ , so 1993 shall correspond to the thumb and 1994 to the index finger.

**A man has Rs. 480 in the denominations of one-rupee notes, five-rupee notes and ten-rupee notes. The number of notes of each denomination is equal. What is the total number of notes that he has ?**

- A. 45
- B. 60
- C. 75
- D. 90

**Answer:** Option D

**Solution:**

Let number of notes of each denomination be  $x$ .

Then,  $x + 5x + 10x = 480 \Leftrightarrow 16x = 480 \Leftrightarrow x = 30$ . Hence, total number of notes =  $3x = 90$ .

**What is the product of all the numbers in the dial of a telephone ?**

- A. 1,58,480
- B. 1,59,450
- C. 1,59,480
- D. None of these

**Answer:** Option D

**Solution:**

Since one of the numbers on the dial of a telephone is zero, so the product of all the numbers on it is 0.

**A is 3 years older to B and 3 years younger to C, while B and D are twins. How many years older is C to D?**

- A.  2
- B.  3
- C.  6
- D.  12

**Answer: Option C**

**Solution:**

Since B and D are twins, so  $B = D$ .

Now,  $A = B + 3$  and  $A = C - 3$ .

Thus,  $B + 3 = C - 3 \Leftrightarrow D + 3 = C - 3 \Leftrightarrow C - D = 6$ .

**The 30 members of a club decided to play a badminton singles tournament. Every time a member loses a game he is out of the tournament. There are no ties. What is the minimum number of matches that must be played to determine the winner ?**

- A.  15
- B.  29
- C.  61
- D.  None of these

**Answer: Option B**

**Solution:**

Clearly, every member except one (i.e. the winner) must lose one game to decide the winner. Thus, minimum number of matches to be played =  $30 - 1 = 29$ .

**In a garden, there are 10 rows and 12 columns of mango trees. The distance between the two trees is 2 metres and a distance of one metre is left from all sides of the boundary of the garden. The length of the garden is**

- A.  20 m
- B.  22 m
- C.  24 m
- D.  26 m

**Answer: Option C**

**Solution:**

Each row contains 12 plants.

There are 11 gaps between the two corner trees ( $11 \times 2$ ) metres and 1 metre on each side is left.

Therefore Length =  $(22 + 2)$  m = 24 m.

**12 year old Manick is three times as old as his brother Rahul. How old will Manick be when he is twice as old as Rahul ?**

- A.  14 years
- B.  16 years
- C.  18 years

- D.  20 years

**Answer:** Option B

**Solution:**

Manick's present age = 12 years, Rahul's present age = 4 years.

Let Manick be twice as old as Rahul after x years from now.

Then,  $12 + x = 2(4 + x) \Leftrightarrow 12 + x = 8 + 2x \Leftrightarrow x = 4$ .

Hence, Manick's required age =  $12 + x = 16$  years.

**A tailor had a number of shirt pieces to cut from a roll of fabric. He cut each roll of equal length into 10 pieces. He cut at the rate of 45 cuts a minute. How many rolls would be cut in 24 minutes ?**

- A.  32 rolls  
B.  54 rolls  
C.  108 rolls  
D.  120 rolls

**Answer:** Option D

**Solution:**

Number of cuts made to cut a roll into 10 pieces = 9.

Therefore Required number of rolls =  $(45 \times 24)/9 = 120$ .

**In a class of 60 students, the number of boys and girls participating in the annual sports is in the ratio 3 : 2 respectively. The number of girls not participating in the sports is 5 more than the**

**number of boys not participating in the sports. If the number of boys participating in the sports is 15, then how many girls are there in the class ?**

- A.  20  
B.  25  
C.  30  
D.  Data inadequate  
E.  None of these

**Answer:** Option C

**Solution:**

Let the number of boys and girls participating in sports be  $3x$  and  $2x$  respectively.

Then,  $3x = 15$  or  $x = 5$ .

So, number of girls participating in sports =  $2x = 10$ .

Number of students not participating in sports =  $60 - (15 + 10) = 35$ .

Let number of boys not participating in sports be  $y$ . Then, number of girls not participating in sports =  $(35 - y)$ .

Therefore  $(35 - y) = y + 5 \Leftrightarrow 2y \Leftrightarrow 30 \Leftrightarrow y = 15$ .

So, number of girls not participating in sports =  $(35 - 15) = 20$ .

Hence, total number of girls in the class =  $(10 + 20) = 30$

**There are deer and peacocks in a zoo. By counting heads they are 80. The number of their legs is 200. How many peacocks are there ?**

- A.  20

- A. 30
- C. 50
- D. 60

**Answer:** Option D

**Solution:**

Let  $x$  and  $y$  be the number of deer and peacocks in the zoo respectively. Then,

$$x + y = 80 \dots \text{(i)}$$

$$4x + 2y = 200 \text{ or } 2x + y = 100 \dots \text{(ii)}$$

Solving (i) and (ii), we get)  $x = 20, y = 60.$

**A man wears socks of two colours - Black and brown. He has altogether 20 black socks and 20 brown socks in a drawer. Supposing he has to take out the socks in the dark, how many must he take out to be sure that he has a matching pair ?**

- A. 3
- B. 20
- C. 39
- D. None of these

**Answer:** Option A

**Solution:**

Since there are socks of only two colours, so two out of any three socks must always be of the same colour.

**A motorist knows four different routes from Bristol to**

**Birmingham. From Birmingham to Sheffield he knows three different routes and from Sheffield to Carlisle he knows two different routes. How many routes does he know from Bristol to Carlisle ?**

- A. 4
- B. 8
- C. 12
- D. 24

**Answer:** Option D

**Solution:**

Total number of routes from Bristol to Carlisle =  $(4 \times 3 \times 2) = 24.$

**Mac has £ 3 more than Ken, but then Ken wins on the horses and trebles his money, so that he now has £ 2 more than the original amount of money that the two boys had between them. How much money did Mac and Ken have between them before Ken's win ?**

- A. £ 9
- B. £ 11
- C. £ 13
- D. £ 15

**Answer:** Option C

**Solution:**

Let money with Ken =  $x$ . Then, money with Mac =  $x + £ 3$ .

$$\text{Now, } 3x = (x + x + £ 3) + £ 2 \Leftrightarrow x = £ 5.$$

Therefore Total money with Mac and Ken =  $2x + £ 3 = £ 13$ .

**In a class, there are 18 boys who are over 160 cm tall. If these constitute three-fourths of the boys and the total number of boys is two-thirds of the total number of students in the class, what is the number of girls in the class ?**

- A.  6
- B.  12
- C.  18
- D.  24

**Answer: Option B****Solution:**

Let the number of boys be  $x$ . Then,  $(3/4)x = 18$  or  $x = 18 \times (4/3) = 24$ .

If total number of students is  $y$ , then  $(2/3)y = 24$  or  $y = 24 \times (3/2) = 36$ .

Therefore Number of girls in the class =  $(36 - 24) = 12$ .

**A father is now three times as old as his son. Five years back, he was four times as old as his son. The age of the son (in years) is**

- A.  12
- B.  15

- C.  18

- D.  20

**Answer: Option B****Solution:**

Let son's age be  $x$  years. Then, father's age =  $(3x)$  years.

Five years ago, father's age =  $(3x - 5)$  years and son's age =  $(x - 5)$  years.

$$\text{So, } 3x - 5 = 4(x - 5) \Leftrightarrow 3x - 5 = 4x - 20 \Leftrightarrow x = 15.$$

**A waiter's salary consists of his salary and tips. During one week his tips were  $5/4$  of his salary. What fraction of his income came from tips ?**

- A.   $4/9$
- B.   $5/4$
- C.   $5/8$
- D.   $5/9$

**Answer: Option D****Solution:**

Let salary = Rs.  $x$ . Then tips = Rs.  $\left(\frac{5}{4}x\right)$ .

Total income = Rs.  $\left(x + \frac{5}{4}x\right)$  = Rs.  $\left(\frac{9x}{4}\right)$ .

$\therefore$  Required fraction =  $\left(\frac{5x}{4} \times \frac{4}{9x}\right) = \frac{5}{9}$ .

**If you write down all the numbers from 1 to 100, then**

## how many times do you write 3

?

- A.  11  
 B.  18  
 C.  20  
 D.  21

**Answer:** Option C

**Solution:**

Clearly, from 1 to 100, there are ten numbers with 3 as the unit's digit- 3, 13, 23, 33, 43, 53, 63, 73, 83, 93; and ten numbers with 3 as the ten's digit - 30, 31, 32, 33, 34, 35, 36, 37, 38, 39.

So, required number =  $10 + 10 = 20$ .

**If 100 cats kill 100 mice in 100 days, then 4 cats would kill 4 mice in how many days ?**

- A.  1 day  
 B.  4 days  
 C.  40 days  
 D.  100 days

**Answer:** Option D

**Solution:**

Less cats, more days

(Indirect Proportion)

Less mice, less days

(Direct Proportion)

Let the required number of days be  $x$ .

$$\begin{array}{l} \text{Cat} \quad 4 : 100 \\ \text{Mice} \quad 100 : 4 \end{array} \left\{ \right. \therefore x : 100$$

$$\therefore 100 \times 4 \times x = 4 \times 100 \times 100 \quad \text{or} \quad x = \left( \frac{4 \times 100 \times 100}{100 \times 4} \right) = 100.$$

**Five bells begin to toll together and toll respectively at intervals of 6, 5, 7, 10 and 12 seconds. How many times will they toll together in one hour excluding the one at the start ?**

- A.  7 times  
 B.  8 times  
 C.  9 times  
 D.  11 times

**Answer:** Option B

**Solution:**

L.C.M. of 6, 5, 7, 10 and 12 is 420.

So, the bells will toll together after every 420 seconds i.e. 7 minutes.

Now,  $7 \times 8 = 56$  and  $7 \times 9 = 63$ .

Thus, in 1-hour (or 60 minutes), the bells will toll together 8 times, excluding the one at the start.

**A bus starts from city X. The number of women in the bus is half of the number of men. In city Y, 10 men leave the bus and five women enter. Now, number of men and women is**

**equal. In the beginning, how many passengers entered the bus ?**

- A.  15
- B.  30
- C.  36
- D.  45

**Answer:** Option D

**Solution:**

Originally, let number of women =  $x$ . Then, number of men =  $2x$ .

So, in city Y, we have :  $(2x - 10) = (x + 5)$  or  $x = 15$ .  
Therefore Total number of passengers in the beginning =  $(x + 2x) = 3x = 45$ .

**A, B, C, D and E play a game of cards. A says to B, "If you give me 3 cards, you will have as many as I have at this moment while if D takes 5 cards from you, he will have as many as E has." A and C together have twice as many cards as E has. B and D together also have the same number of cards as A and C taken together. If together they have 150 cards, how many cards has C got ?**

- A.  28
- B.  29
- C.  31
- D.  35

**A farmer built a fence around his square plot. He used 27 fence poles on each side of the square. How many poles did he need altogether ?**

- A.  100
- B.  104
- C.  108
- D.  None of these

**Answer:** Option B

**Solution:**

Since each pole at the corner of the plot is common to its two sides, so we have :

Total number of poles needed =  $27 \times 4 - 4 = 108 - 4 = 104$ .

**In a city, 40% of the adults are illiterate while 85% of the children are literate. If the ratio of the adults to that of the children is 2 : 3, then what percent of the population is literate ?**

- A.  20%
- B.  25%
- C.  50%
- D.  75%

**Answer:** Option D

**Solution:**

**A is three times as old as B. C was twice-as old as A four**

**years ago. In four years' time, A will be 31. What are the present ages of B and C ?**

- A.  9, 46
- B.  9, 50
- C.  10, 46
- D.  10, 50

**Answer: Option B**

**Solution:**

We have :  $A = 3B \dots (i)$  and

$C - 4 = 2(A - 4) \dots (ii)$

Also,  $A + 4 = 31$  or  $A = 31 - 4 = 27$ .

Putting  $A = 27$  in (i), we get:  $B = 9$ .

Putting  $A = 27$  in (ii), we get  $C = 50$

**Today is Varun's birthday. One year, from today he will be twice as old as he was 12 years ago. How old is Varun today ?**

- A.  20 years
- B.  22 years
- C.  25 years
- D.  27 years

**Answer: Option C**

**Solution:**

Let Varan's age today =  $x$  years.

Then, Varan's age after 1 year =  $(x + 1)$  years.

Therefore  $x + 1 = 2(x - 12) \Leftrightarrow x + 1 = 2x - 24 \Leftrightarrow x = 25$ .

**33.**

**A bird shooter was askgd how many birds he had in the bag. He replied that there were all sparrows but six, all pigeons but six, and all ducks but six. How many birds he had in the bag in all?**

- A.  9
- B.  18
- C.  27
- D.  36

**Solution:**

'There were all sparrows but six' means that six birds were not sparrows but only pigeons and ducks.

Similarly, number of sparrows + number of ducks = 6 and number of sparrows + number of pigeons = 6. This is possible when there are 3 sparrows, 3 pigeons and 3 ducks i.e. 9 birds in all.

**34.**

**Mr. Johnson was to earn £ 300 and a free holiday for seven weeks' work. He worked for only 4 weeks and earned £ 30 and a free holiday. What was the value of the holiday?**

- A.  £ 300
- B.  £ 330
- C.  £ 360
- D.  £ 420

**Answer:** Option B

**Solution:**

**Three friends had dinner at a restaurant. When the bill was received, Amita paid  $\frac{2}{3}$  as much as Veena paid and Veena paid  $\frac{1}{2}$  as much as Tanya paid. What fraction of the bill did Veena pay ?**

- A.  $\frac{1}{3}$
- B.  $\frac{3}{11}$
- C.  $\frac{12}{13}$
- D.  $\frac{5}{8}$
- E. None of these

**Answer:** Option B

**Solution:**

**In a class, 20% of the members own only two cars each, 40% of the remaining own three cars each and the remaining members own only one car each. Which of the following statements is definitely true from the given statements ?**

- A. Only 20% of the total members own three cars each.
- B. 48% of the total members own only one car each.

C. 60% of the total members own at least two cars each.

D. 80% of the total members own at least one car.

E. None of these

**Answer:** Option B

**Solution:**

Let total number of members be 100,  
Then, number of members owning only 2 cars = 20.  
Number of members owning 3 cars = 40% of 80 = 32.

Number of members owning only 1 car =  $100 - (20 + 32) = 48$ .

Thus, 48% of the total members own one car each.

**When Rahul was born, his father was 32 years older than his brother and his mother was 25 years older than his sister. If Rahul's brother is 6 years older than him and his mother is 3 years younger than his father, how old was Rahul's sister when he was born ?**

- A. 7 years
- B. 10 years
- C. 14 years
- D. 19 years

**Answer:** Option B

**Solution:**

When Rahul was born, his brother's age = 6 years;  
His father's age =  $(6 + 32)$  years = 38 years,  
His mother's age =  $(38 - 3)$  years = 35 years;  
His sister's age =  $(35 - 25)$  years = 10 years.

**A certain number of horses and an equal number of men are going somewhere. Half of the owners are on their horses' back while the remaining ones are walking along leading their horses. If the number of legs walking on the ground is 70, how many horses are there ?**

- A. 10
- B. 12
- C. 14
- D. 16

**Answer:** Option C

**Solution:**

Let number of horses = number of men =  $x$ .

Then, number of legs =  $4x + 2 \times (x/2) = 5x$ .

So,  $5x = 70$  or  $x = 14$ .

**Ravi's brother is 3 years senior to him. His father was 28 years of age when his sister was born while his mother was 26 years of age when he was born. If his sister was 4 years of age when his brother was born, what were the ages of Ravi's father and mother respectively when his brother was born ?**

- A. 32 years, 23 years
- B. 32 years, 29 years
- C. 35 years, 29 years

- D. 35 years, 33 years

**Answer:** Option A

**Solution:**

When Ravi's brother was born, let Ravi's father's age =  $x$  years and mother's age =  $y$  years.

Then, sister's age =  $(x - 28)$  years. So,  $x - 28 = 4$  or  $x = 32$ .

Ravi's age =  $(y - 26)$  years. Age of Ravi's brother =  $(y - 26 + 3)$  years =  $(y - 23)$  years.

Now, when Ravi's brother was born, his age = 0 i.e.  $y - 23 = 0$  or  $y = 23$ .

**The number of boys in a class is three times the number of girls. Which one of the following numbers cannot represent the total number of children in the class ?**

- A. 48
- B. 44
- C. 42
- D. 40

**Answer:** Option C

**Solution:**

Let number of girls =  $x$  and number of boys =  $3x$ .

Then,  $3x + x = 4x$  = total number of students.

Thus, to find exact value of  $x$ , the total number of students must be divisible by 4.

**42.**

**A shepherd had 17 sheep. All but nine died. How many was he left with ?**

- A. Nil

- A.  8  
 C.  9  
 D.  17

**Answer:** Option C

**Solution:**

'All but nine died' means 'All except nine died' i.e. 9 sheep remained alive.

**In a family, the father took  $\frac{1}{4}$  of the cake and he had 3 times as much as each of the other members had. The total number of family members is**

- A.  3  
 B.  7  
 C.  10  
 D.  12

**Answer:** Option C

**Solution:**

Let there be  $(x + 1)$  members. Then,

$$\text{Father's share} = \frac{1}{4}, \text{ share of each other member} = \frac{3}{4x}.$$

$$\therefore 3\left(\frac{3}{4x}\right) = \frac{1}{4} \Leftrightarrow 4x = 36 \Leftrightarrow x = 9.$$

Hence, total number of family members = 10.

**In three coloured boxes - Red, Green and Blue, 108 balls are placed. There are twice as many**

**balls in the green and red boxes combined as there are in the blue box and twice as many in the blue box as there are in the red box. How many balls are there in the green box ?**

- A.  18  
 B.  36  
 C.  45  
 D.  None of these

**Answer:** Option D

**Solution:**

Let R, G and B represent the number of balls in red, green and blue boxes respectively.

Then, .

$$R + G + B = 108 \dots(i),$$

$$G + R = 2B \dots(ii)$$

$$B = 2R \dots(iii)$$

From (ii) and (iii), we have  $G + R = 2 \times 2R = 4R$  or  $G = 3R$ .

Putting  $G = 3R$  and  $B = 2R$  in (i), we get:

$$R + 3R + 2R = 108 \Leftrightarrow 6R = 108 \Leftrightarrow R = 18.$$

Therefore Number of balls in green box =  $G = 3R = (3 \times 18) = 54$ .

**In a cricket match, five batsmen A, B, C, D and E scored an average of 36 runs. D Scored 5 more than E; E scored 8 fewer than A; B scored as many as D and E combined; and B and C scored 107 between them. How many runs did E score ?**

- A.  62  
 B.  45

C. 28

D. 20

**Answer:** Option D

**Solution:**

$$\text{Total runs scored} = (36 \times 5) = 180.$$

Let the runs scored by E be x.

Then, runs scored by D =  $x + 5$ ; runs scored by A =  $x + 8$ ;

runs scored by B =  $x + x + 5 = 2x + 5$ ;

runs scored by C =  $(107 - B) = 107 - (2x + 5) = 102 - 2x$ .

$$\text{So, total runs} = (x + 8) + (2x + 5) + (102 - 2x) + (x + 5) + x = 3x + 120.$$

$$\text{Therefore } 3x + 120 = 180 \Leftrightarrow 3x = 60 \Leftrightarrow x = 20.$$

D. 5

**Answer:** Option B

**Solution:**

Let d and s represent the number of daughters and sons respectively.

Then, we have :

$$d - 1 = s \text{ and } 2(s - 1) = d.$$

Solving these two equations, we get:  $d = 4, s = 3$ .

**At a dinner party every two guests used a bowl of rice between them, every three guests used a bowl of dal between them and every four used a bowl of meat between them. There were altogether 65 dishes. How many guests were present at the party ?**

A. 60

B. 65

C. 90

D. None of these

**Answer:** Option A

**Solution:**

**Ayush was born two years after his father's marriage. His mother is five years younger than his father but 20 years older than Ayush who is 10 years old. At what age did the father get married ?**

A. 23 years

B. 25 years

**In a family, each daughter has the same number of brothers as she has sisters and each son has twice as many sisters as he has brothers. How many sons are there in the family ?**

A. 2

B. 3

C. 4

- C.  33 years  
D.  35 years

**Answer:** Option A

**Solution:**

Ayush's present age = 10 years.  
His mother's present age =  $(10 + 20)$  years = 30 years.  
Ayush's father's present age =  $(30 + 5)$  years = 35 years.  
Ayush's father's age at the time of Ayush's birth =  $(35 - 10)$  years = 25 years.  
Therefore Ayush's father's age at the time of marriage =  $(25 - 2)$  years = 23 years.

**50.**

**A student got twice as many sums wrong as he got right. If he attempted 48 sums in all, how many did he solve correctly ?**

- A.  12  
B.  16  
C.  18  
D.  24

**Answer:** Option B

**Solution:**

Suppose the boy got  $x$  sums right and  $2x$  sums wrong.  
Then,  $x + 2x = 48 \Leftrightarrow 3x = 48 \Leftrightarrow x = 16$ .

**David gets on the elevator at the 11th floor of a building and rides up at the rate of 57 floors per minute. At the same time,**

**Albert gets on an elevator at the 51st floor of the same building and rides down at the rate of 63 floors per minute. If they continue travelling at these rates, then at which floor will their paths cross ?**

- A.  19  
B.  28  
C.  30  
D.  37

**Answer:** Option C

**Solution:**

Suppose their paths cross after  $x$  minutes.

$$\text{Then, } 11 + 57x = 51 - 63x \Leftrightarrow 120x = 40 \Leftrightarrow x = \frac{1}{3}.$$

$$\text{Number of floors covered by David in } \frac{1}{3} \text{ min.} = \left( \frac{1}{3} \times 57 \right) = 19.$$

So, their paths cross at  $(11 + 19)$ th i.e. 30th floor.

**I have a few sweets to be distributed. If I keep 2, 3 or 4 in a pack, I am left with one sweet. If I keep 5 in a pack, I am left with none. What is the minimum number of sweets I have to pack and distribute ?**

- A.  25  
B.  37

C. 54

D. 65

**Answer:** Option A

**Solution:**

Clearly, the required number would be such that it leaves a remainder of 1 when divided by 2, 3 or 4 and no remainder when divided by 5. Such a number is 25.

**If a clock takes seven seconds to strike seven, how long will it take to strike ten ?**

A. 7 seconds

B. 9 seconds

C. 10 seconds

D. None of these

**Answer:** Option D

**Solution:**

Clearly, seven strikes of a clock have 6 intervals while 10 strikes have 9 intervals.

$$\therefore \text{Required time} = \left( \frac{7}{6} \times 9 \right) \text{seconds} = 10\frac{1}{2} \text{ seconds.}$$

**In a group of cows and hens, the number of legs are 14 more than twice the number of heads. The number of cows is**

A. 5

B. 7

C. 10

D. 12

**Answer:** Option B

**Solution:**

Let the number of cows be  $x$  and the number of hens be  $y$ .

$$\text{Then, } 4x + 2y = 2(x + y) + 14 \Leftrightarrow 4x + 2y = 2x + 2y + 14 \Leftrightarrow 2x = 14 \Leftrightarrow x = 7.$$

**55.**

**A father tells his son, "I was of your present age when you were born". If the father is 36 now, how old was the boy five years back ?**

A. 13

B. 15

C. 17

D. 20

**Answer:** Option A

**Solution:**

Let the father's age be  $x$  and the son's age be  $y$ .

$$\text{Then, } x - y = y \text{ or } x = 2y,$$

$$\text{Now, } x = 36. \text{ So, } 2y = 36 \text{ or } y = 18.$$

Therefore Son's present age = 18 years.

So, son's age 5 years ago = 13 years.

**A fires 5 shots to B's 3 but A kills only once in 3 shots while B kills once in 2 shots. When B has missed 27 times, A has killed**

A. 30 birds

- A. 60 birds
- C. 72 birds
- D. 90 birds

**Answer:** Option A

**Solution:**

Let the total number of shots be  $x$ . Then,

$$\text{Shots fired by A} = \frac{5}{8}x; \quad \text{Shots fired by B} = \frac{3}{8}x.$$

$$\text{Killing shots by A} = \frac{1}{3} \text{ of } \frac{5}{8}x = \frac{5x}{24};$$

$$\text{Shots missed by B} = \frac{1}{2} \text{ of } \frac{3}{8}x = \frac{3x}{16}.$$

$$\therefore \frac{3x}{16} = 27 \quad \text{or} \quad x = \left( \frac{27 \times 16}{3} \right) = 144.$$

$$\text{Birds killed by A} = \frac{5x}{24} = \left( \frac{5}{24} \times 144 \right) = 30.$$

**In a class, 3/5 of the students are girls and rest are boys. If 2/9 of the girls and 1/4 of the boys are absent, what part of the total number of students is present ?**

- A. 17/25
- B. 18/49
- C. 23/30
- D. 23/36

**Answer:** Option C

**Solution:**

$$\text{Girls} = \frac{3}{5}, \quad \text{Boys} = \left( 1 - \frac{3}{5} \right) = \frac{2}{5}.$$

$$\text{Fraction of students absent} = \frac{2}{9} \text{ of } \frac{3}{5} + \frac{1}{4} \text{ of } \frac{2}{5} = \frac{6}{45} + \frac{1}{10} = \frac{21}{90} = \frac{7}{30}.$$

$$\therefore \text{Fraction of students present} = \left( 1 - \frac{7}{30} \right) = \frac{23}{30}.$$

**In a family, a couple has a son and a daughter. The age of the father is three times that of his daughter and the age of the son is half of that of his mother. The wife is 9 years younger to her husband and the brother is seven years older than his sister. What is the age of the mother ?**

- A. 40 years
- B. 45 years
- C. 50 years
- D. 60 years

**Answer:** Option D

**Solution:**

Let the daughter's age be  $x$  years.

Then, father's age =  $(3x)$  years.

Mother's age =  $(3x - 9)$  years; Son's age =  $(x + 7)$  years.

So,  $x + 7 = (3x - 9)/2 \Leftrightarrow 2x + 14 = 3x - 9 \Leftrightarrow x = 23$ .

Therefore Mother's age =  $(3x - 9) = (69 - 9)$  years = 60 years

**If a 1 mm thick paper is folded so that the area is halved at**

**every fold, then what would be the thickness of the pile after 50 folds ?**

- A.  100 km
- B.  1000 km
- C.  1 million km
- D.  1 billion km

**Answer:** Option D  
**Solution:**

Since the area is halved on folding, so each time the paper is folded in the centre i.e. its thickness becomes two-fold each time. So, we have Thickness after 1 fold = 2 mm;

Thickness after 2 folds =  $(2 \times 2)$  mm =  $2^2$  mm;

Thickness after 3 folds =  $(2^2 \times 2)$  mm =  $2^3$  mm; and so on.

$$\therefore \text{Thickness after 50 folds} = 2^{50} \text{ mm} = \left( \frac{2^{50}}{1000 \times 1000} \right) \text{ km.}$$

Let  $x = \frac{2^{50}}{(1000)^2}$ . Then,

$$\log x = 50 \log 2 - 2 \log 1000 = 50 \times 0.3010 - 2 \times 3 = 9.050 \sim 9.$$

So,  $x = \text{antilog } 9 = 1000000000$ .

Hence, thickness after 50 folds =  $x$  km = 1 billion km.

**Mr. X, a mathematician, defines a number as 'connected with 6 if it is divisible by 6 or if the sum of its digits is 6, or if 6 is one of the digits of the number. Other numbers are all 'not connected with 6'. As per this definition, the number of integers from 1 to 60 (both inclusive) which are not connected with 6 is**

- A.  18
- B.  22
- C.  42
- D.  43
- E.  None of these

**Answer:** Option D

**Solution:**

Numbers from 1 to 60, which are divisible by 6 are : 6, 12, 18, 24, 30, 36, 42, 48, 54, 60.

There are 10 such numbers.

Numbers from 1 to 60, the sum of whose digits is 6 are : 6, 15, 24, 33, 42, 51, 60.

There are 7 such numbers of which 4 are common to the above ones. So, there are 3 such uncommon numbers.

Numbers from 1 to 60, which have 6 as one of the digits are 6, 16, 26, 36, 46, 56, 60.

Clearly, there are 4 such uncommon numbers.

So, numbers 'not connected with 6' =  $60 - (10 + 3 + 4) = 43$ .

**Find the number which when added to itself 13 times, gives 112.**

- A.  7
- B.  8
- C.  9
- D.  11
- E.  None of these

**Answer:** Option B

**Solution:**

Let the number be  $x$ . Then,  $x + 13x = 112 \Leftrightarrow 14x = 112 \Leftrightarrow x = 8$ .

**Aruna cut a cake into two halves and cuts one half into smaller pieces of equal size. Each of the small pieces is twenty grams in weight. If she has seven pieces of the cake in all with her, how heavy was the original cake ?**

- A. 120 grams
- B. 140 grams
- C. 240 grams
- D. 280 grams
- E. None of these

**Answer: Option C**

**Solution:**

The seven pieces consist of 6 smaller equal pieces and one half cake piece.

Weight of each small piece = 20 g.

So, total weight of the cake =  $[2 \times (20 \times 6)]g = 240 g$ .

**A total of 324 coins of 20 paise and 25 paise make a sum of Rs. 71. The number of 25-paise coins is**

- A. 120
- B. 124
- C. 144
- D. 200

**Answer: Option B**

**Solution:**

Let the number of 20-paise coins be  $x$ . Then, number of 25-paise coins =  $(324 - x)$ .  
Therefore  $0.20x + 0.25(324 - x) = 71 \Leftrightarrow 20x + 25(324 - x) = 7100$   
 $\Leftrightarrow 5x = 1000 \Leftrightarrow x = 200$ . Hence, number of 25-paise coins =  $(324 - x) - 124$ .

**A player holds 13 cards of four suits, of which seven are black and six are red. There are twice as many diamonds as spades and twice as many hearts as diamonds. How many clubs does he hold ?**

- A. 4
- B. 5
- C. 6
- D. 7

**Answer: Option C**

**Solution:**

Clearly, the black cards are either clubs or spades while the red cards are either diamonds or hearts.  
Let the number of spades be  $x$ . Then, number of clubs =  $(7 - x)$ .

Number of diamonds =  $2 \times$  number of spades =  $2x$ ;  
Number of hearts =  $2 \times$  number of diamonds =  $4x$ .  
Total number of cards =  $x + 2x + 4x + 7 - x = 6x + 7$ .

Therefore  $6x + 7 = 13 \Leftrightarrow 6x = 6 \Leftrightarrow x = 1$ .

Hence, number of clubs =  $(7 - x) = 6$ .

**The taxi charges in a city comprise of a fixed charge, together with the charge of the distance covered. For a journey of 16 km, the charges paid are**

**Rs. 156 and for a journey of 24 km, the charges paid are Rs. 204. What will a person have to pay for travelling a distance of 30 km?**

- A.  Rs. 236
- B.  Rs. 240
- C.  Rs. 248
- D.  Rs. 252

**Answer: Option B**

**Solution:**

Let the fixed charge be Rs.  $x$  and variable charge be Rs.  $y$  per km. Then,

$$x + 16y = 156 \dots(i)$$

$$x + 24y = 204 \dots(ii)$$

Solving (i) and (ii), we get:  $x = 60$ ,  $y = 6$ .

Therefore Cost of travelling 30 km =  $60 + 30 \times 6 =$  Rs.  $(60 + 30 \times 6) =$  Rs. 240

**If readymade shirts need alterations 2 out of 3 in sleeves, 3 out of 4 in collar and 4 out of 5 in the body, how many alterations will be required for 60 shirts ?**

- A.  88
- B.  123
- C.  133
- D.  143

**Answer: Option C**

**Solution:**

**At the end of a business conference the ten people present all shake hands with each other once. How many handshakes will there be altogether ?**

- A.  20
- B.  45
- C.  55
- D.  90

**Answer: Option B**

**Solution:**

Clearly, total number of handshakes =  $(9 + 8 + 7 + 6 + 5 + 4 + 3 + 2 + 1) = 45$ .

**After distributing the sweets equally among 25 children, 8 sweets remain. Had the number of children been 28, 22 sweets would have been left after equal distribution. What was the total number of sweets ?**

- A.  328
- B.  348
- C.  358
- D.  Data inadequate

**Answer: Option C**

**Solution:**

Let the total number of sweets be  $(25x + 8)$ .

Then,  $(25x + 8) - 22$  is divisible by 28

$\Leftrightarrow (25x - 14)$  is divisible by 28  $\Leftrightarrow 28x - (3x + 14)$  is

divisible by 28

$\Leftrightarrow (3x + 14)$  is divisible by 28  $\Leftrightarrow x = 14$ .

Therefore Total number of sweets =  $(25 \times 14 + 8) = 358$ .

**A group of 1200 persons consisting of captains and soldiers is travelling in a train. For every 15 soldiers there is one captain. The number of captains in the group is**

- A.  85
- B.  80
- C.  75
- D.  70

**Answer:** Option C

**Solution:**

Clearly, out of every 16 persons, there is one captain. So, number of captains  $(1200/16) = 75$ .

**In a caravan, in addition to 50 hens, there are 45 goats and 8 camels with some keepers. If the total number of feet be 224 more than the number of heads in the caravan, the number of keepers is**

- A.  5
- B.  8
- C.  10
- D.  15

**Answer:** Option D

**Solution:**

Let number of keepers be  $x$ . Then,

Total number of feet =  $2 \times 50 + 4 \times 45 + 4 \times 8 + 2x = 2x + 312$ .

Total number of heads =  $50 + 45 + 8 + x = 103 + x$ .  
Therefore  $(2x + 312) = (103 + x) + 224$  or  $x = 15$ .

**A monkey climbs 30 feet at the beginning of each hour and rests for a while when he slips back 20 feet before he again starts climbing in the beginning of the next hour. If he begins his ascent at 8.00 a.m., at what time will he first touch a flag at 120 feet from the ground?**

- A.  4 p.m.
- B.  5 p.m.
- C.  6 p.m.
- D.  None of these

**Answer:** Option C

**Solution:**

Net ascent of the monkey in 1 hour =  $(30 - 20)$  feet = 10 feet.

So, the monkey ascends 90 feet in 9 hours i.e. till 5 p.m.

Clearly, in the next 1 hour i.e. till 6 p.m. the monkey ascends remaining 30 feet to touch the flag.

**A number consists of two digits whose sum is 11. If 27 is added to the number, then the digits change their places. What is the number ?**

- A.  47

- B. 65
- C. 83
- D. 92

**Answer:** Option A

**Solution:**

Let the ten's digit be  $x$ . Then, unit's digit =  $(11 - x)$ .  
So, number =  $10x + (11 - x) = 9x + 11$ .  
Therefore  $(9x + 11) + 27 = 10(11 - x) + x \Leftrightarrow 9x + 38 = 110 - 9x \Leftrightarrow 18x = 72 \Leftrightarrow x = 4$ .  
Thus, ten's digit = 4 and unit's digit = 7.  
Hence, required number = 47.

**cube of a number. If again Nitin's age has to be equal to the cube of some number, then for how long he will have to wait?**

- A. 10 years
- B. 38 years
- C. 39 years
- D. 64 years

**Answer:** Option B

**Solution:**

Clearly, we have to first find two numbers whose difference is 2 and of which the smaller one is a perfect square and the bigger one a perfect cube. Such numbers are 25 and 27.  
Thus, Nitin is now 26 years old. Since the next perfect cube after 27 is 64,  
so required time period =  $(64 - 26)$  years = 38 years.

**Between two book-ends in your study are displayed your five favourite puzzle books. If you decide to arrange the five books in every possible combination and moved just one book every minute, how long would it take you ?**

- A. 1 hour
- B. 2 hours
- C. 3 hours
- D. 4 hours

**An enterprising businessman earns an income of Re. 1 on the first day of his business. On every subsequent day, he earns an income which is just double of that made on the previous day. One the 10th day of business, his income is**

- A. Rs.  $2^9$
- B. Rs.  $2^{10}$
- C. Rs. 10
- D. Rs.  $10^2$

**Answer:** Option A

**Solution:**

Income on the first day = Re. 1.  
Income on the 2nd day = Rs.  $(1 \times 2) = \text{Rs. } 2^1$ .  
Income on the 3rd day = Rs.  $(2^1 \times 2) = \text{Rs. } 2^2$  and so on. Thus, Income on the rath day = Rs.  $2^{n-1}$ .  
Therefore Income on the 10th day = Rs.  $2^9$ .

**Nitin's age was equal to square of some number last year and the following year it would be**

**Answer:** Option B

**Solution:**

Clearly, number of ways of arranging 5 books =  $5!$   
 $= 5 \times 4 \times 3 \times 2 \times 1 = 120.$   
So, total time taken = 120 minutes = 2 hours.

**A placed three sheets with two carbons to get two extra copies of the original. Then he decided to get more carbon copies and folded the paper in such a way that the upper half of the sheets were on top of the lower half. Then he typed. How many carbon copies did he get?**

- A. 1
- B. 2
- C. 3
- D. 4

**Answer:** Option B

**Solution:**

Since the number of carbons is 2, only two copies can be obtained.

**A printer numbers the pages of a book starting with 1 and uses 3189 digits in all. How many pages does the book have ?**

- A. 1000
- B. 1074
- C. 1075

D. 1080

**Answer:** Option B

**Solution:**

No. of digits in 1-digit page nos. =  $1 \times 9 = 9.$   
No. of digits in 2-digit page nos. =  $2 \times 90 = 180.$   
No. of digits in 3-digit page nos. =  $3 \times 900 = 2700.$   
No. of digits in 4-digit page nos. =  $3189 - (9 + 180 + 2700) = 3189 - 2889 = 300.$   
Therefore No. of pages with 4-digit page nos. =  $(300/4) = 75.$   
Hence, total number of pages =  $(999 + 75) = 1074.$

## Chapter 15 Analyzing Arguments

**One New York publisher has estimated that 50,000 to 60,000 people in the United States want an anthology that includes the complete works of William Shakespeare. And what accounts for this renewed interest in Shakespeare? As scholars point out, his psychological insights into both male and female characters are amazing even today.**

**This paragraph best supports the statement that**

- A. Shakespeare's characters are more interesting than fictional characters today.
- B. People even today are interested in Shakespeare's work because of the characters.

- C. Academic scholars are putting together an anthology of Shakespeare's work.
- D. New Yorkers have a renewed interest in the work of Shakespeare.
- E. Shakespeare was a psychiatrist as well as a playwright.

**Answer: Option B**

**Solution:**

The last sentence in the paragraph clearly gives support for the idea that the interest in Shakespeare is due to the development of his characters. Choice a is incorrect because the writer never makes this type of comparison. Choice c is wrong because even though scholars are mentioned in the paragraph, there is no indication that the scholars are compiling the anthology. Choice d is wrong because there is no support to show that most New Yorkers are interested in this work. There is no support for choice e either.

**One of the warmest winters on record has put consumers in the mood to spend money. Spending is likely to be the strongest in thirteen years. During the month of February, sales of existing single-family homes hit an annual record rate of 4.75 million. This paragraph best supports the statement that**

- A. consumer spending will be higher thirteen years from now than it is today.
- B. more people buy houses in the month of February than in any other month.
- C. during the winter months, the prices of single-family homes are the lowest.

- D. there were about 4 million homes for sale during the month of February.
- E. warm winter weather is likely to affect the rate of home sales.

**Answer: Option E**

**Solution:**

This is clearly the best answer because the paragraph directly states that warm weather affects consumers inclination to spend. It furthers states that the sales of single-family homes was at an all-time high. There is no support for choice a or c. Choice b is wrong because even though there were high sales for a particular February, this does not mean that sales are not higher in other months. Choice d presents a misleading figure of 4 million. The paragraph states that the record of 4.75 million was at an annual, not a monthly, rate.

**Generation Xers are those people born roughly between 1965 and 1981. As employees, Generation Xers tend to be more challenged when they can carry out tasks independently. This makes Generation Xers the most entrepreneurial generation in history. This paragraph best supports the statement that Generation Xers**

- A. work harder than people from other generations.
- B. have a tendency to be self-directed workers.
- C. have an interest in making history.

D. tend to work in jobs that require risk-taking behavior.

E. like to challenge their bosses work attitudes.

**Answer: Option B**

**Solution:**

The support for choice b is given in the second sentence of the paragraph. Generation Xers like to work independently, which means they are self-directed. No support is given for either choice a or choice c. Choice d is not related to the paragraph. Although the paragraph mentions that Generation Xers like to be challenged, it does not say they like to challenge their bosses attitudes; therefore, choice e can be ruled out.

**If you're a fitness walker, there is no need for a commute to a health club. Your neighborhood can be your health club. You don't need a lot of fancy equipment to get a good workout either. All you need is a well-designed pair of athletic shoes.**

**This paragraph best supports the statement that**

A. fitness walking is a better form of exercise than weight lifting.

B. a membership in a health club is a poor investment.

C. walking outdoors provides a better workout than walking indoors.

D. fitness walking is a convenient and valuable form of exercise.

E. poorly designed athletic shoes can cause major foot injuries.

**Answer: Option D**

**Solution:**

By stating that fitness walking does not require a commute to a health club, the author stresses the convenience of this form of exercise. The paragraph also states that fitness walking will result in a good workout. Choice a is incorrect because no comparison to weight lifting is made. Choice b may seem like a logical answer, but the paragraph only refers to people who are fitness walkers, so for others, a health club might be a good investment. Choice c is not in the passage. Although choice e seems logical, the paragraph does not indicate that the wrong shoes will produce major injuries.

**In the past, consumers would rarely walk into an ice cream store and order low-fat ice cream. But that isn't the case today. An increasing health consciousness combined with a much bigger selection of tasty low-fat foods in all categories has made low-fat ice cream a very profitable item for ice cream store owners.**

**This paragraph best supports the statement that**

A. low-fat ice cream produces more revenue than other low-fat foods.

B. ice cream store owners would be better off carrying only low-fat ice cream.

C. ice cream store owners no longer think that low-fat ice cream is an unpopular item.

D. low-fat ice cream is more popular than other kinds of ice cream.

E. consumers are fickle and it is impossible to please them

**Answer: Option C**

**Solution:**

This choice is supported as the best answer because the paragraph indicates that low-fat ice cream was once an unpopular item, but now, because consumers are more health conscious and because there is a wider array of tasty low-fat foods, low-fat ice cream is a profitable item for ice cream store owners. There is no indication that choices a, b, d, or e are true based on the information given.

**Today's high school students spend too much time thinking about trivial and distracting matters such as fashion. Additionally, they often dress inappropriately on school grounds. Rather than spending time writing another detailed dress policy, we should make school uniforms mandatory. If students were required to wear uniforms, it would increase a sense of community and harmony in our schools and it would instill a sense of discipline in our students. Another positive effect would be that teachers and administrators would no longer have to act as clothing police, freeing them up to focus on more important issues. This paragraph best supports the statement that**

A. inappropriate clothing leads to failing grades.

B. students who wear school uniforms get into better colleges.

C. teachers and administrators spend at least 25% of their time enforcing the dress code.

D. students are not interested in being part of a community.

E. school uniforms should be compulsory for high school students.

**Answer: Option E**

**Solution:**

The support for choice e is in the third sentence "we should make school uniforms mandatory". There is no evidence provided to support choices a, b, and d. And although we know that teachers and administrators are spending some of their time enforcing dress code, the paragraph does not quantify how much of their time is spent that way, so there is no support for choice c

**The criminal justice system needs to change. The system could be more just if it allowed victims the opportunity to confront the person who has harmed them. Also, mediation between victims and their offenders would give the offenders a chance to apologize for the harm they have done. This paragraph best supports the statement that victims of a crime should**

A. learn to forgive their offenders.

B. have the right to confront their offenders.

- C. learn the art of mediation.
- D. insist that their offenders be punished.
- E. have the right to impose a sentence on their offenders.

**Answer: Option B**

**Solution:**

This answer is clearly stated in the first sentence of the paragraph. There is no support in the passage for choices a, d, or e. As for choice c, although mediation is mentioned, the statement does not indicate that victims should be the mediators.

**A few states in this country are considering legislation that would prohibit schools from using calculators before the sixth grade. Other states take a different position. Some states are insisting on the purchase of graphing calculators for every student in middle school.**

**This paragraph best supports the statement that in this country**

- A. there are at least two opinions about the use of calculators in schools.
- B. calculators are frequently a detriment to learning math.
- C. state legislators are more involved in education than ever before.
- D. the price of graphing calculators is less when schools buy in bulk.
- E. the argument against calculators in schools is unfounded.

**Answer: Option A**

**Solution:**

The paragraph clearly states that there are two differing opinions with regard to the use of calculators in the classroom. Although some people may believe that choice b is true, the paragraph does not indicate this. Choice c has no relation to the paragraph. Choice d makes logical sense, but the paragraph says nothing about cost. Choice e is an opinion that is not given in the paragraph.

**Today's workforce has a new set of social values. Ten years ago, a manager who was offered a promotion in a distant city would not have questioned the move. Today, a manager in that same situation might choose family happiness instead of career advancement. This paragraph best supports the statement that**

- A. most managers are not loyal to the corporations for which they work.
- B. businesses today do not understand their employees needs.
- C. employees social values have changed over the past ten years.
- D. career advancement is not important to today's business managers.
- E. companies should require their employees to accept promotions.

**Answer: Option C**

**Solution:**

A change in employee social values over the past ten years is implied in the whole paragraph, but particularly in the first sentence. Choice a is incorrect because the loyalty of the managers to their corporations is never discussed. There is no support for choice b. In choice d, perhaps career advancement is less important than it once was, but the paragraph does not indicate that advancement is unimportant to managers. Choice e is an opinion that is not supported.

**It is well known that the world urgently needs adequate distribution of food, so that everyone gets enough. Adequate distribution of medicine is just as urgent. Medical expertise and medical supplies need to be redistributed throughout the world so that people in emerging nations will have proper medical care. This paragraph best supports the statement that**

- A. the majority of the people in the world have never been seen by a doctor.
- B. food production in emerging nations has slowed during the past several years.
- C. most of the world
- D. the medical-supply industry should step up production of its products.
- E. many people who live in emerging nations are not receiving proper medical care.

**Answer: Option E**

**Solution:**

This answer is implied by the statement that redistribution is needed so that people in emerging nations can have proper medical care. Choices a, b, and c are not mentioned in the passage. Choice d is also incorrect—the passage indicates that the distribution of medicine, not its production, is inadequate.

**Yoga has become a very popular type of exercise, but it may not be for everyone. Before you sign yourself up for a yoga class, you need to examine what it is you want from your fitness routine. If you're looking for a high-energy, fast-paced aerobic workout, a yoga class might not be your best choice. This paragraph best supports the statement that**

- A. yoga is more popular than high-impact aerobics.
- B. before embarking on a new exercise regimen, you should think about your needs and desires.
- C. yoga is changing the world of fitness in major ways.
- D. yoga benefits your body and mind.
- E. most people think that yoga isn't a rigorous form of exercise.

**Answer: Option B**

**Solution:**

The second sentence points out that people should examine what they want from a fitness routine before signing up for a new exercise class. There is no evidence to support choice a. Choice c might sound reasonable due to the fact that the paragraph

tells us that yoga has become very popular, but this statement is not supported by the information provided in the paragraph. Choices d and e are also not supported since the paragraph doesn't tell us whether yoga is good for both body and mind or what people think about it.

**Human technology developed from the first stone tools about two and a half million years ago. At the beginning, the rate of development was slow. Hundreds of thousands of years passed without much change. Today, new technologies are reported daily on television and in newspapers.**  
**This paragraph best supports the statement that**

- A. stone tools were not really technology.
- B. stone tools were in use for two and a half million years.
- C. there is no way to know when stone tools first came into use.
- D. In today's world, new technologies are constantly being developed.
- E. none of the latest technologies is as significant as the development of stone tools.

**Answer: Option D**

**Solution:**

The last sentence states that new technologies are reported daily, and this implies that new technologies are being constantly developed. There

is no support for choice a. With regard to choice b, stone tools were first used two and a half million years ago, but they were not necessarily in use all that time. Choice c is clearly wrong since the paragraph states when stone tools first came into use. Although some may agree that choice e is true, the author of the paragraph does not give support for this opinion.

**Mathematics allows us to expand our consciousness. Mathematics tells us about economic trends, patterns of disease, and the growth of populations. Math is good at exposing the truth, but it can also perpetuate misunderstandings and untruths. Figures have the power to mislead people.**  
**This paragraph best supports the statement that**

- A. the study of mathematics is dangerous.
- B. words are more truthful than figures.
- C. the study of mathematics is more important than other disciplines.
- D. the power of numbers is that they cannot lie.
- E. figures are sometimes used to deceive people.

**Answer: Option E**

**Solution:**

This answer is clearly stated in the last sentence of the paragraph. Choice a can be ruled out because there is no support to show that studying math is dangerous. Words are not mentioned in the passage, which rules out choice b. Choice d is a contradiction.

to the information in the passage. There is no support for choice c.

**In the 1966 Supreme Court decision *Miranda v. Arizona*, the court held that before the police can obtain statements from a person subjected to an interrogation, the person must be given a *Miranda* warning. This warning means that a person must be told that he or she has the right to remain silent during the police interrogation. Violation of this right means that any statement that the person makes is not admissible in a court hearing. This paragraph best supports the statement that**

- A. police who do not warn persons of their *Miranda* rights are guilty of a crime.
- B. a *Miranda* warning must be given before a police interrogation can begin.
- C. the police may no longer interrogate persons suspected of a crime unless a lawyer is present.
- D. the 1966 Supreme Court decision in *Miranda* should be reversed.
- E. persons who are interrogated by police should always remain silent until their lawyer comes.

**Answer: Option B**

**Solution:**

This answer is clearly supported in the second sentence. Nothing in the paragraph suggests that it is a crime not to give a *Miranda* warning, so choice a is incorrect. Choice c is also wrong because police

may interrogate as long as a warning is given. There is no support given for either choice d or e.

**During colonial times in America, juries were encouraged to ask questions of the parties in the courtroom. The jurors were, in fact, expected to investigate the facts of the case themselves. If jurors conducted an investigation today, we would throw out the case. This paragraph best supports the statement that**

- A. juries are less important today than they were in colonial times.
- B. jurors today are less interested in court cases than they were in colonial times.
- C. courtrooms today are more efficient than they were in colonial times.
- D. jurors in colonial times were more informed than jurors today.
- E. the jury system in America has changed since colonial times.

**Answer: Option E**

**Solution:**

The paragraph focuses on the idea that the jury system is different from what it was in colonial times. There is no support given for choices a, b, and c. Choice d is incorrect because, even though jurors in colonial times were expected to investigate and ask questions, this does not necessarily mean that they were more informed than today's jurors.<sup>3</sup>

**There are no effective boundaries when it comes to pollutants. Studies have shown that toxic insecticides that have been banned in many countries are riding the wind from countries where they remain legal. Compounds such as DDT and toxaphene have been found in remote places like the Yukon and other Arctic regions.**

**This paragraph best supports the statement that**

- A. toxic insecticides such as DDT have not been banned throughout the world.
- B. more pollutants find their way into polar climates than they do into warmer areas.
- C. studies have proven that many countries have ignored their own antipollution laws.
- D. DDT and toxaphene are the two most toxic insecticides in the world.
- E. even a worldwide ban on toxic insecticides would not stop the spread of DDT pollution.

**Answer: Option A**

**Solution:**

The support for this choice is in the second sentence, which states that in some countries, toxic insecticides are still legal. Choice b is incorrect because even though polar regions are mentioned in the paragraph, there is no support for the idea that warmer regions are not just as affected. There is no support for choice c. Choice d can be ruled out because there is nothing to indicate that DDT and toxaphene are the most toxic. Choice e is illogical.

**The Fourth Amendment to the Constitution protects citizens against unreasonable searches and seizures. No search of a person's home or personal effects may be conducted without a written search warrant issued on probable cause. This means that a neutral judge must approve the factual basis justifying a search before it can be conducted.**

**This paragraph best supports the statement that the police cannot search a person's home or private papers unless they have**

- A. legal authorization.
- B. direct evidence of a crime.
- C. read the person his or her constitutional rights.
- D. a reasonable belief that a crime has occurred.
- E. requested that a judge be present.

**Answer: Option A**

**Solution:**

The second and third sentence combine to give support to choice a. The statement stresses that there must be a judge's approval (i.e., legal authorization) before a search can be conducted. Choices b and d are wrong because it is not enough for the police to have direct evidence or a reasonable belief—a judge must authorize the search for it to be legal. Choices c and e are not mentioned in the passage.

**Obesity is a serious problem in this country. Research suggests that obesity can lead to a number of health problems including diabetes, asthma, and heart disease. Recent research has even indicated that there may be a relationship between obesity and some types of cancer. Major public health campaigns that increase awareness and propose simple lifestyle changes that will, with diligence and desire, eliminate or least mitigate the incidence of obesity are a crucial first step in battling this critical problem.**

**This paragraph best supports the statement that**

- A. public health campaigns that raise consciousness and propose lifestyle changes are a productive way to fight obesity.
- B. obesity is the leading cause of diabetes in our country.
- C. people in our country watch too much television and do not exercise enough.
- D. a decline in obesity would radically decrease the incidence of asthma.
- E. fast-food restaurants and unhealthy school lunches contribute greatly to obesity.

**Answer: Option A**

**Solution:**

The support for this choice is in the last sentence, which states that major public health campaigns that increase awareness and propose lifestyle changes are important in our fight against obesity. Choice b can be ruled out because although the paragraph states that obesity can lead to diabetes, it doesn't tell us that it is the leading cause of this disease. Choices c and e might sound reasonable and true, but they are not supported in the paragraph. And although we are told that obesity has been connected to asthma, this fact is not quantified in any way, so choice d is also not supported by the information given.

**Critical reading is a demanding process. To read critically, you must slow down your reading and, with pencil in hand, perform specific operations on the text. Mark up the text with your reactions, conclusions, and questions. When you read, become an active participant.**

**This paragraph best supports the statement that**

- A. critical reading is a slow, dull, but essential process.
- B. the best critical reading happens at critical times in a person's life.
- C. readers should get in the habit of questioning the truth of what they read.
- D. critical reading requires thoughtful and careful attention.
- E. critical reading should take place at the same time each day.

**Answer: Option D**

**Solution:**

This answer is implied by the whole paragraph. The author stresses the need to read critically by performing thoughtful and careful operations on the text. Choice a is incorrect because the author never says that reading is dull. Choices b, c, and e are not supported by the paragraph.

**Walk into any supermarket or pharmacy and you will find several shelves of products designed to protect adults and children from the sun.**

**Additionally, a host of public health campaigns have been created, including National Skin Cancer Awareness Month, that warn us about the sun's damaging UV rays and provide guidelines about protecting ourselves. While warnings about the sun's dangers are frequent, a recent survey found that fewer than half of all adults adequately protect themselves from the sun.**

**This paragraph best supports the statement that**

- A. children are better protected from the sun's dangerous rays than adults
- B. sales of sun protection products are at an all-time high.
- C. adults are not heeding the warnings about the dangers of sun exposure seriously enough.
- D. more adults have skin cancer now than ever before.

- E. there is not enough information disseminated about the dangers of sun exposure.

**Answer: Option C**

**Solution:**

The last sentence gives direct support for this response. Although children might be better protected from the sun than adults, the paragraph does not specifically cite statistics about children, so we can't know for sure, ruling out choice a. There is no evidence provided in the paragraph to support choices b and d. Choice e is incorrect since the last sentence tells us that warnings about the sun's dangers are frequent.

**For too long, school cafeterias, in an effort to provide food they thought would be appetizing to young people, mimicked fast-food restaurants, serving items such as burgers and fries, pizza, hot dogs, and fried chicken. School districts nationwide are now addressing this trend by incorporating some simple and inexpensive options that will make cafeteria lunches healthier while still appealing to students.**

**This paragraph best supports the statement that**

- A. school cafeterias have always emphasized nutritional guidelines over any other considerations.
- B. young people would rather eat in a school cafeteria than a local fast-food restaurant.
- C. school lunch menus are becoming healthier due to major new initiatives on the part of school districts.

D. it is possible to make school lunches both healthier and appealing without spending a great deal of money and undertaking a radical transformation.

E. vegetarian lunch options would greatly improve the nutritional value of the school lunch program.

**Answer:** Option D

**Solution:**

The final sentence of the paragraph supports choice d. The other choices are not supported by the passage. Choice c may seem correct at first, but the paragraph states that the new initiatives are simple and inexpensive, not major. Choice e might seem to represent a truth, but vegetarian options are not discussed in this paragraph.

**Forest fires feed on decades-long accumulations of debris and leap from the tops of young trees into the branches of mature trees. Fires that jump from treetop to treetop can be devastating. In old-growth forests, however, the shade of mature trees keeps thickets of small trees from sprouting, and the lower branches of mature trees are too high to catch the flames.**

**This paragraph best supports the statement that**

A. forest fire damage is reduced in old-growth forests.

B. small trees should be cut down to prevent forest fires.

C. mature trees should be thinned out to prevent forest fires

D. forest fires do the most damage in old-growth forests.

E. old-growth forests have a larger accumulation of forest debris.

**Answer:** Option A

**Solution:**

The last sentence provides direct support for choice a. The author never suggests that any trees should be cut down or thinned out, which eliminates choices b and c. Choice d contradicts the author's opinion. The author suggests that old growth forests have less debris, which rules out choice e.

**During the last six years, the number of practicing physicians has increased by about 20%. During the same time period, the number of healthcare managers has increased by more than 600%. These percentages mean that many doctors have lost the authority to make their own schedules, determine the fees that they charge, and decide on prescribed treatments.**

**This paragraph best supports the statement that doctors**

A. resent the interference of healthcare managers.

B. no longer have adequate training.

C. care a great deal about their patients.

- D. are less independent than they used to be.
- E. are making a lot less money than they used to make.

**Answer: Option D**

**Solution:**

The author of this statement suggests that doctors are less independent. The author stresses that many doctors have lost authority. There is no support for the opinion that doctors resent the healthcare managers, however which rules out choice a. The doctors training is never mentioned (choice b). Doctors may care about their patients (choice c), but this information is not part of the paragraph. Choice e is not mentioned.

**By the time they reach adulthood, most people can perform many different activities involving motor skills. Motor skills involve such diverse tasks as riding a bicycle, threading a needle, and cooking a dinner. What all these activities have in common is their dependence on precision and timing of muscular movement.**

**This paragraph best supports the statement that**

- A. most adults have not refined their motor skills.
- B. all adults know how to ride a bicycle.
- C. refined motor skills are specifically limited to adults.
- D. children perform fewer fine motor activities in a day than adults do.

- E. threading a needle is a precise motor skill.

**Answer: Option E**

**Solution:**

The second sentence states that threading a needle involves motor skill. The other choices are not in the paragraph.

**Most Reality TV centers on two common motivators: fame and money. The shows transform waitresses, hairdressers, investment bankers, counselors, and teachers, to name a few, from obscure figures to house-hold names. A lucky few successfully parlay their fifteen minutes of fame into celebrity. The luckiest stars of Reality TV also reap huge financial rewards for acts including eating large insects, marrying someone they barely know, and revealing their innermost thoughts to millions of people.**

**This paragraph best supports the statement that**

- A. the stars of Reality TV are interested in being rich and famous.
- B. Reality TV is the best thing that has happened to network television in a long time.
- C. for Reality TV stars, fame will last only as long as their particular television show.
- D. traditional dramas and sitcoms are being replaced by Reality TV programming at an alarming rate.

E. Reality TV shows represent a new wave of sensationalistic, low quality programming.

**Answer:** Option A

**Solution:**

This is expressed in the first sentence. Choices b, d, and e are not supported by the passage. Choice c is incorrect because the paragraph states that some Reality TV stars manage to parlay their fifteen minutes of fame into celebrity.

**The image of a knitter as an older woman sitting in a comfortable, old-fashioned living room with a basket of yarn at her feet and a bun in her hair is one of the past. As knitting continues to become more popular and increasingly trendy, it is much more difficult to describe the average knitter. Knitters today might be 18, 28, 40, or 65. They might live in a big urban center and take classes in a knit- ting shop that doubles as a café or they may gather in suburban coffee shops to support one another in knitting and other aspects of life. They could be college roommates knitting in their dorm room or two senior citizens knitting in a church hall. Even men are getting in the act. It would be incredibly difficult to come up with an accurate profile of a contemporary knitter to replace that image of the old woman with the basket of yarn!**

**This paragraph best supports the statement that**

- A. people are returning to knitting in an attempt to reconnect with simpler times.
- B. knitting is now more of a group activity, as opposed to an individual hobby.
- C. creating an accurate profile of a particular type of person depends on the people in this group having traits and characteristics in common.
- D. today's knitters are much less accomplished than knitters of the past.
- E. young people are turning to knitting in record numbers.

**Answer:** Option C

**Solution:**

The statement that it is difficult to create an accurate profile of a contemporary knitter comes immediately after a discussion about how different today's knitters are from one another and from knitters of the past. Choices a and d are not supported by the paragraph. Although the paragraph does discuss knitting done in group settings, it does not specifically say that more of today's knitting is done in groups; therefore, choice b is incorrect. Young people may be turning to knitting in record numbers, but again, that statement is not verified by the information provided in the paragraph, so choice e must be ruled out as well.

**Close-up images of Mars by the *Mariner 9* probe indicated networks of valleys that looked like the stream beds on Earth. These images also implied that Mars once had an atmosphere that was thick enough to trap**

**the sun's heat. If this were true, something happened to Mars billions of years ago that stripped away the planet's atmosphere.**

**This paragraph best supports the statement that**

- A. Mars now has little or no atmosphere.
- B. Mars once had a thicker atmosphere than Earth does.
- C. the *Mariner 9* probe took the first pictures of Mars.
- D. Mars is closer to the sun than Earth is.
- E. Mars is more mountainous than Earth is.

**Answer:** Option A

**Solution:**

The paragraph states that Mars once had a thick atmosphere, but that it was stripped away. The other choices, true or not, cannot be found in the passage.

**Originating in the 1920s, the Pyramid scheme is one of the oldest con games going. Honest people are often pulled in, thinking the scheme is a legitimate investment enterprise. The first customer to "fall for" the Pyramid scheme will actually make big money and will therefore persuade friends and relatives to join also. The chain then continues with the con artist who originated the scheme pocketing, rather than investing, the money. Finally,**

**the pyramid collapses, but by that time, the scam artist will usually have moved out of town, leaving no forwarding address.**

**This paragraph best supports the statement that**

- A. it is fairly easy to spot a Pyramid scheme in the making.
- B. the first customer of a Pyramid scheme is the most gullible.
- C. the people who set up Pyramid schemes are able to fool honest people.
- D. the Pyramid scheme had its heyday in the 1920s, but it's making a comeback.
- E. the Pyramid scheme got its name from its structure.

**Answer:** Option C

**Solution:**

The fact that the Pyramid scheme is set up by a con artist suggests that the honest people who invest have been fooled. Choices a and b are contradicted in the passage. The paragraph says that the Pyramid scheme originated in the 1920s, but does not say it had its heyday then; thus, choice d is incorrect. Choice e is a fact, but it is not mentioned in the passage.

**The image of a knitter as an older woman sitting in a comfortable, old-fashioned living room with a basket of yarn at her feet and a bun in her hair is one of the past. As knitting continues to become more popular and increasingly**

**trendy, it is much more difficult to describe the average knitter. Knitters today might be 18, 28, 40, or 65. They might live in a big urban center and take classes in a knit- ting shop that doubles as a café or they may gather in suburban coffee shops to support one another in knitting and other aspects of life. They could be college roommates knitting in their dorm room or two senior citizens knitting in a church hall. Even men are getting in the act. It would be incredibly difficult to come up with an accurate profile of a contemporary knitter to replace that image of the old woman with the basket of yarn!**

**This paragraph best supports the statement that**

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- D. today's knitters are much less accomplished than knitters of the past.

- E. young people are turning to knitting in record numbers.

**Answer: Option C**

**Solution:**

The statement that it is difficult to create an accurate profile of a contemporary knitter comes immediately after a discussion about how different today's knitters are from one another and from knitters of the past. Choices a and d are not supported by the paragraph. Although the paragraph does discuss knitting done in group settings, it does not specifically say that more of today's knitting is done in groups; therefore, choice b is incorrect. Young people may be turning to knitting in record numbers, but again, that statement is not verified by the information provided in the paragraph, so choice e must be ruled out as well.

**Which of the following is similar to the argument made by the speaker?**

- A. The rich should not be allowed to "buy" politicians, so the Congress should enact campaign finance reform.
- B. The idea of freedom of religion also means the right not to participate in religion, so mandated school prayer violates freedom of religion.
- C. The Constitution guarantees freedom to own property, so taxes should be illegal.
- D. Convicted felons should not have their convictions overturned on a technicality.
- E. In order to understand what may be constitutional today, one needs to look at what the laws were when the Constitution was enacted.

**Answer: Option B**

**Solution:**

This is the best choice because it relates to a situation where a proposed law would actually violate the part of the Constitution it is intended to protect.

### **Which of the following, if true, would weaken the speaker's argument?**

- A. An action is not considered a part of freedom of speech.
- B. People who burn the flag usually commit other crimes as well.
- C. The flag was not recognized by the government until 1812.
- D. State flags are almost never burned.
- E. Most people are against flag burning.

**Answer:** Option A

**Solution:**

If an action is not included under freedom of speech, the speaker's main argument is incorrect.

### **Which of the following best expresses the main point of the passage?**

- A. Only veterans care about the flag-burning issue.
- B. Flag burning almost never happens, so outlawing it is a waste of time.
- C. Flag burning will be a very important issue in the next election.

D. To outlaw flag burning is to outlaw what the flag represents.

E. Burning the flag should only be illegal when it is done in foreign countries.

**Answer:** Option D

**Solution:**

The speaker maintains that to burn a flag is an act of freedom of speech, which is among the things the flag represents.

### **Which of the following is similar to the argument made by the speaker?**

- A. The rich should not be allowed to "buy" politicians, so the Congress should enact campaign finance reform.
- B. The idea of freedom of religion also means the right not to participate in religion, so mandated school prayer violates freedom of religion.
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- E. In order to understand what may be constitutional today, one needs to look at what the laws were when the Constitution was enacted.

**Answer:** Option B

**Solution:**

This is the best choice because it relates to a situation where a proposed law would actually violate the part of the Constitution it is intended to protect.

## **Which of the following, if true, would strengthen the speaker's argument?**

- A. studies showing computers are expensive.
- B. research on the effect of computer games on children.
- C. examples of high school students who use computers improperly.
- D. proof that the cost of computers is coming down.
- E. evidence that using computers makes learning to read difficult.

**Answer:** Option E

**Solution:**

This evidence would back up the speaker's contention that young students should learn the basics before learning computers. Choices a and d, which are both about cost, would have no effect on the argument. Choices b and c are too vague.

## **Which of the following, if true, would weaken the speaker's argument?**

- A. a demonstration that computers can be used to teach reading and arithmetic.
- B. analysis of the cost-effectiveness of new computers versus repairing old computers.
- C. examples of adults who do not know how to use computers.

D. recent grade reports of students in the computer classes.

E. a visit to a classroom where computers are being used.

## **Which of the following methods of argument is used in the previous passage?**

- A. a specific example that illustrates the speaker.
- B. attacking the beliefs of those who disagree with the speaker.
- C. relying on an analogy to prove the speaker.
- D. displaying statistics that back up the speaker.
- E. comparing different methods of learning.

**Answer:** Option C

**Solution:**

The speaker uses analogies to compare crawling with learning arithmetic and reading and to compare walking with using a computer. The speaker is making the point that, in both cases, a child needs to learn one before learning the other.

## **Which of the following, if true, would strengthen the speaker's argument?**

- A. studies showing computers are expensive.
- B. research on the effect of computer games on children.
- C. examples of high school students who use computers improperly.

D. proof that the cost of computers is coming down.

E. evidence that using computers makes learning to read difficult.

**Answer: Option E**

**Solution:**

This evidence would back up the speaker's contention that young students should learn the basics before learning computers. Choices a and d, which are both about cost, would have no effect on the argument. Choices b and c are too vague.

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## What is the point at issue between Quinn and Dakota?

---

A. whether sixteen-year-olds should be required to take drivers education before being issued a license.

B. whether schools ought to provide drivers education to fourteen- and fifteen-year-old students.

C. whether the standards for issuing drivers licenses should become more stringent.

D. whether sixteen-year-olds are prepared to drive in today.

E. whether parents are able to do a good job teaching their children to drive.

**Answer: Option D**

**Solution:**

The speakers support their arguments in different ways, but both are concerned with whether sixteen-year-olds should continue to be allowed to receive drivers licenses.

---

## On what does Quinn rely in making her argument?

---

A. statistics

B. emotion

C. fairness

D. anecdotes

E. actualities

**Answer: Option C**

**Solution:**

Quinn discusses the fairness of changing the law and raising the age at which one can receive a driver's license. Emotion (choice b) may be involved, but the argument relies on the fairness issue.

---

## On what does Dakota rely in making her argument?

---

A. statistics

B. emotion

C. fairness

D. anecdotes

E. actualities

**Answer: Option E**

**Solution:**

Dakota discusses the actualities of increased traffic and the decline in the teaching of drivers education. She doesn't use statistics (choice a). Her argument is not emotion filled, which rules out choice b. She doesn't mention fairness (choice c) and doesn't tell stories about specific situations (choice d)

**Answer: Option A**

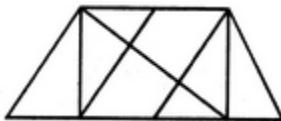
**Solution:**

If computers enhance the learning of arithmetic and reading, the speaker's argument is not as strong.

Logical Reasoning Book for Every PSC

## Chapter 16 Counting matrix

Find the number of triangles in the given figure.

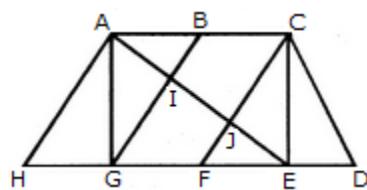


- A. 8
- B. 10
- C. 12
- D. 14

**Answer:** Option D

**Explanation:**

The figure may be labelled as shown.



The simplest triangles are AHG, AIG, AIB, JFE, CJE and CED i.e. 6 in number.

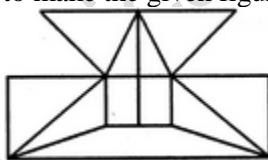
The triangles composed of two components each are ABG, CFE, ACJ and EGI i.e. 4 in number.

The triangles composed of three components each are ACE, AGE and CFD i.e. 3 in number.

There is only one triangle i.e. AHE composed of four components.

Therefore, There are  $6 + 4 + 3 + 1 = 14$  triangles in the given figure.

2. Find the minimum number of straight lines required to make the given figure.



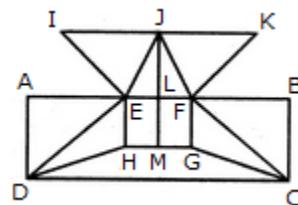
- A. 16
- B. 17
- C. 18

D. 19

**Answer:** Option B

**Explanation:**

The figure may be labelled as shown.



The horizontal lines are IK, AB, HG and DC i.e. 4 in number.

The vertical lines are AD, EH, JM, FG and BC i.e. 5 in number.

The slanting lines are IE, JE, JF, KF, DE, DH, FC and GC i.e. 8 is number.

Thus, there are  $4 + 5 + 8 = 17$  straight lines in the figure.

3. Find the number of triangles in the given figure.

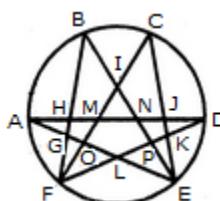


- A. 22
- B. 24
- C. 26
- D. 28

**Answer:** Option D

**Explanation:**

The figure may be labelled as shown.



The simplest triangles are AGH, GFO, LFO, DJK, EKP, PEL and IMN i.e. 7 in number.

The triangles having two components each are GFL, KEL, AMO, NDP, BHN, CMJ, NEJ and HFM i.e. 8 in number.

The triangles having three components each are IOE, IFP, BIF and CEI i.e. 4 in number.

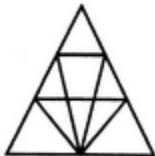
The triangles having four components each are ANE and DMF i.e. 2 in number.

The triangles having five components each are FCK, BGE and ADL i.e. 3 in number.

The triangles having six components each are BPF, COE, DHF and AJE i.e. 4 in number.

Total number of triangles in the figure =  $7 + 8 + 4 + 2 + 3 + 4 = 28$ .

4. Find the number of triangles in the given figure.

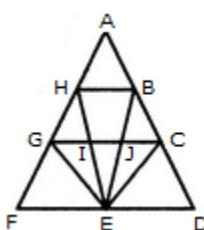


- A. 12
- B. 18
- C. 22
- D. 26

**Answer:** Option B

**Explanation:**

The figure may be labelled as shown.



The simplest triangles are AHB, GHI, BJC, GFE, GIE, IJE, CEJ and CDE i.e. 8 in number.

The triangles composed of two components each are HEG, BEC, HBE, JGE and ICE i.e. 5 in number.

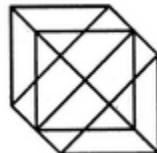
The triangles composed of three components each are FHE, GCE and BED i.e. 3 in number.

There is only one triangle i.e. AGC composed of four components.

There is only one triangle i.e. AFD composed of nine components.

Thus, there are  $8 + 5 + 3 + 1 + 1 = 18$  triangles in the given figure.

5. Find the number of triangles in the given figure.

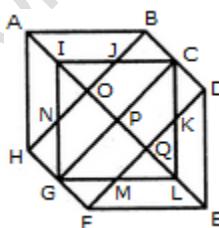


- A. 18
- B. 20
- C. 24
- D. 27

**Answer:** Option C

**Explanation:**

The figure may be labelled as shown.



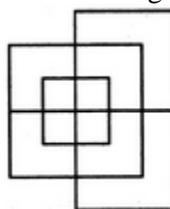
The simplest triangles are IJO, BCJ, CDK, KQL, MLQ, GFM, GHN and NIO i.e. 8 in number.

The triangles composed of two components each are ABO, AHO, NIJ, IGP, ICP, DEQ, FEQ, KLM, LCP and LGP i.e. 10 in number.

The triangles composed of four components each are HAB, DEF, LGI, GIC, ICL and GLC i.e. 6 in number.

Total number of triangles in the figure =  $8 + 10 + 6 = 24$ .

6. Find the minimum number of straight lines required to make the given figure.



- A. 13

B. 15

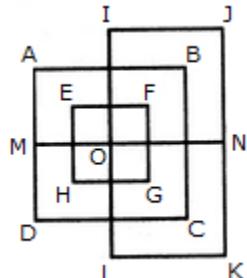
C. 17

D. 19

**Answer:** Option A

**Explanation:**

The figure may be labelled as shown.

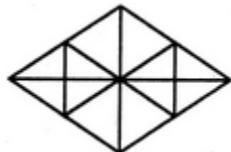


The horizontal lines are IJ, AB, EF, MN, HG, DC and LK i.e. 7 in number.

The vertical lines are AD, EH, IL, FG, BC and JK i.e. 6 in number.

Thus, there are  $7 + 6 = 13$  straight lines in the figure.

7. Find the number of triangles in the given figure.



A. 16

B. 22

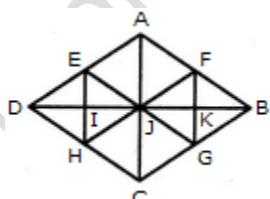
C. 28

D. 32

**Answer:** Option C

**Explanation:**

The figure may be labelled as shown.



The simplest triangles are AFJ, FJK, FKB, BKG, JKG, JGC, HJC, HIJ, DIH, DEI, EIJ and AEJ i.e. 12 in number.

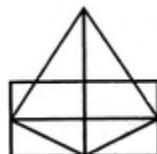
The triangles composed of two components each are JFB, FBG, BJJ, JFG, DEJ, EJH, DJH and DEH i.e. 8 in number.

The triangles composed of three components each are AJB, JBC, DJC and ADJ i.e. 4 in number.

The triangles composed of six components each are DAB, ABC, BCD and ADC i.e. 4 in number.

Thus, there are  $12 + 8 + 4 + 4 = 28$  triangles in the figure.

8. Find the number of triangles in the given figure.



A. 11

B. 13

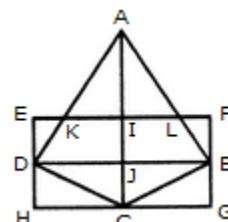
C. 15

D. 17

**Answer:** Option C

**Explanation:**

The figure may be labelled as shown.



The simplest triangles are AKI, AIL, EKD, LFB, DJC, BJC, DHC and BCG i.e. 8 in number.

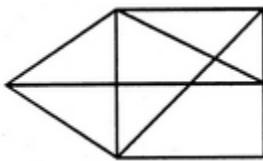
The triangles composed of two components each are AKL, ADJ, AJB and DBC i.e. 4 in number.

The triangles composed of the three components each are ADC and ABC i.e. 2 in number.

There is only one triangle i.e. ADB composed of four components.

Thus, there are  $8 + 4 + 2 + 1 = 15$  triangles in the figure.

9. Find the number of triangles in the given figure.

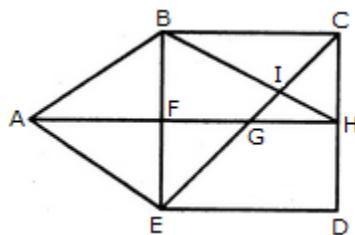


- A. 12
- B. 13
- C. 14
- D. 15

**Answer:** Option D

**Explanation:**

The figure may be labelled as shown.



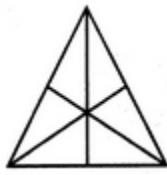
The simplest triangles are ABF, BIC, CIH, GIH, FGE and AFE i.e. 6 in number.

The triangles composed of two components each are ABE, AGE, BHF, BCH, CGH and BIE i.e. 6 in number.

The triangles composed of three components each are ABH, BCE and CDE i.e. 3 in number.

Hence, the total number of triangles in the figure =  $6 + 6 + 3 = 15$ .

10. Find the number of triangles in the given figure.

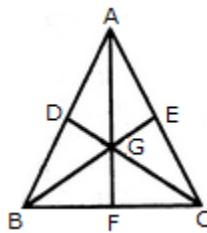


- A. 16
- B. 13
- C. 9
- D. 7

**Answer:** Option A

**Explanation:**

The figure may be labelled as shown.



The simplest triangles are AGE, EGC, GFC, BGF, DGB and ADG i.e. 6 in number.

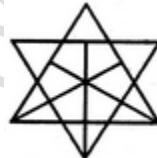
The triangles composed of two components each are AGC, BGC and ABG i.e. 3 in number.

The triangles composed of three components each are AFC, BEC, BDC, ABF, ABE and DAC i.e. 6 in number.

There is only one triangle i.e. ABC composed of six components.

Thus, there are  $6 + 3 + 6 + 1 = 16$  triangles in the given figure.

11. Find the number of triangles in the given figure.

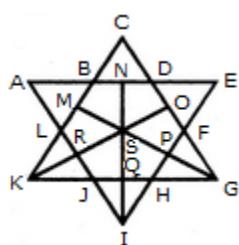


- A. 21
- B. 23
- C. 25
- D. 27

**Answer:** Option D

**Explanation:**

The figure may be labelled as shown.



The simplest triangles are ABL, BCD, DEF, FGP, PGH, QHI, JQI, KRJ and LRK i.e. 9 in number.

The triangles composed of two components each are OSG, SGQ, SPI, SRI, KSQ, KMS, FGH, JHI and JKL i.e. 9 in number.

There is only one triangle i.e. KSG which is composed of four components.

The triangles composed of five components each are NEI, ANI, MCG and KCO i.e. 4 in number.

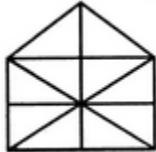
The triangles composed of six components each are GMK and KOG i.e. 2 in number.

There is only one triangle i.e. AEI composed of ten components.

There is only one triangle i.e. KCG composed of eleven components.

Therefore, Total number of triangles in the given figure =  $9 + 9 + 1 + 4 + 2 + 1 + 1 = 27$ .

12. Find the number of triangles in the given figure.

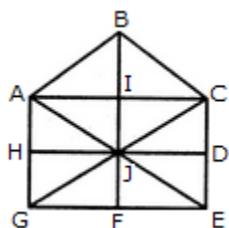


- A. 10
- B. 19
- C. 21
- D. 23

**Answer:** Option C

**Explanation:**

The figure may be labelled as shown.



The simplest triangles are ABI, BIC, AIJ, CIJ, AHJ, CDJ, JHG, JDE, GJF and EJF i.e. 10 in number.

The triangles composed of two components each are ABC, BCJ, ACJ, BAJ, AJG, CJE and GJE i.e. 7 in number.

The triangles composed of four components each are ACG, ACE, CGE and AGE i.e. 4 in number.

Total number of triangles in the figure =  $10 + 7 + 4 = 21$ .

13. Find the number of triangles in the given figure.

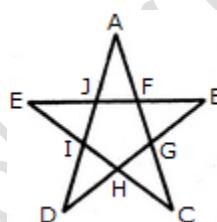


- A. 5
- B. 6
- C. 8
- D. 10

**Answer:** Option D

**Explanation:**

The figure may be labelled as shown.

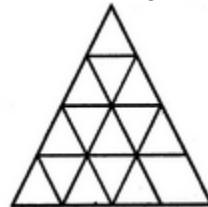


The simplest triangles are AJF, FBG, GCH, HDI and IEJ i.e. 5 in number.

The triangles composed of three components each are EBH, AIC, EFC, ADG and BJD i.e. 5 in number.

Thus, there are  $5 + 5 = 10$  triangles in the figure.

14. Find the minimum number of straight lines required to make the given figure.

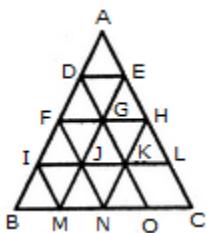


- A. 9
- B. 11
- C. 15
- D. 16

**Answer:** Option B

**Explanation:**

The figure may be labelled as shown.

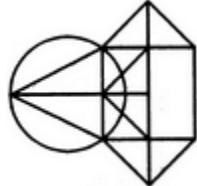


The horizontal lines are DE, FH, IL and BC i.e. 4 in number.

The slanting lines are AC, DO, FN, IM, AB, EM and HN i.e. 7 in number.

Thus, there are  $4 + 7 = 11$  straight lines in the figure.

15. Find the number of triangles in the given figure.

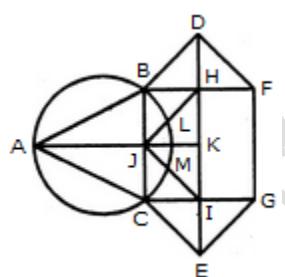


- A. 10
- B. 12
- C. 14
- D. 16

**Answer:** Option C

**Explanation:**

The figure may be labelled as shown.



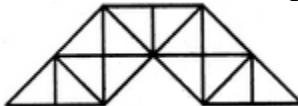
The simplest triangles are ABJ, ACJ, BDH, DHF, CIE and GIE i.e. 6 in number.

The triangles composed of two components each are ABC, BDF, CEG, BHJ, JHK, JKI and CJI i.e. 7 in number.

There is only one triangle JHI which is composed of four components.

Thus, there are  $6 + 7 + 1 = 14$  triangles in the given figure.

16. Find the number of triangles in the given figure.

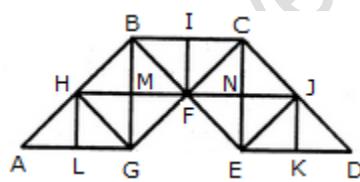


- A. 23
- B. 27
- C. 29
- D. 31

**Answer:** Option C

**Explanation:**

The figure may be labelled as shown.



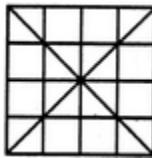
The simplest triangles are AHL, LHG, GHM, HMB, GMF, BMF, BIF, CIF, FNC, CNJ, FNE, NEJ, EKJ and JKD i.e. 14 in number.

The triangles composed of two components each are AGH, BHG, HBF, BFG, HFG, BCF, CJF, CJE, JEF, CFE and JED i.e. 11 in number.

The triangles composed of four components each are ABG, CBG, BCE and CED i.e. 4 in number.

Total number of triangles in the given figure =  $14 + 11 + 4 = 29$ .

17. Find the number of triangles in the given figure.

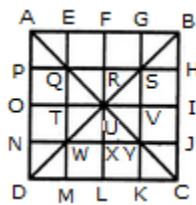


- A. 36
- B. 40
- C. 44
- D. 48

**Answer:** Option D

**Explanation:**

The figure may be labelled as shown.



The simplest triangles are APQ, AEQ, QTU, QRU, BGS, BHS, RSU, SUV, TUW, UWX, NWD, WDM, UVY, UXY, JCY and YKC i.e. 16 in number.

The triangles composed of two components each are QUW, QSU, SYU and UWY i.e. 4 in number.

The triangles composed of three components each are AOU, AFU, FBU, BIU, UIC, ULC, ULD and OUD i.e. 8 in number.

The triangles composed of four components each are QYW, QSW, QSY and SYW i.e. 4 in number.

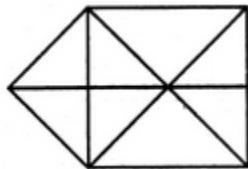
The triangles composed of six components each are AUD, ABU, BUC and DUC i.e. 4 in number.

The triangles composed of seven components each are QMC, ANY, EBW, PSD, CQH, AGY, DSK and BJW i.e. 8 in number.

The triangles composed of twelve components each are ABD, ABC, BCD and ACD i.e. 4 in number.

Thus, there are  $16 + 4 + 8 + 4 + 4 + 8 + 4 = 48$  triangles in the figure.

18. Find the number of triangles in the given figure.

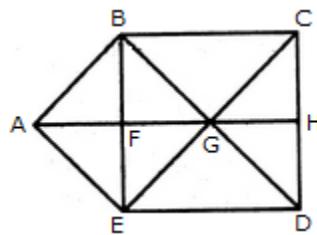


- A. 15
- B. 16
- C. 17
- D. 18

**Answer:** Option C

**Explanation:**

The figure may be labelled as shown.



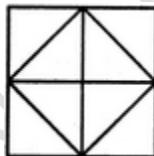
The simplest triangles are ABF, BFG, BCG, CGH, GHD, GED, EFG and AFE i.e. 8 in number.

The triangles composed of two components each are ABG, BGE, AGE, ABE and GCD i.e. 5 in number.

The triangles composed of three components each are BCD, CDE, BED and BCE i.e. 4 in number.

Thus, there are  $8 + 5 + 4 = 17$  triangles in the figure.

19. Find the number of triangles in the given figure.

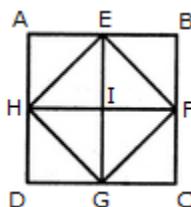


- A. 8
- B. 10
- C. 12
- D. 14

**Answer:** Option C

**Explanation:**

The figure may be labelled as shown.

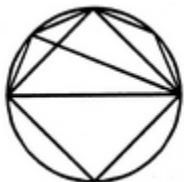


The simplest triangles are AEH, EHI, EBF, EFI, FGC, IFG, DGH and HIG i.e. 8 in number.

The triangles composed of two components each are HEF, EFG, HFG and EFG i.e. 4 in number.

Thus, there are  $8 + 4 = 12$  triangles in the figure.

20. Find the number of triangles in the given figure.

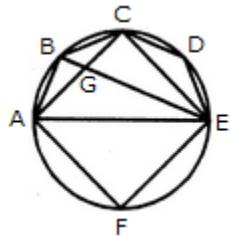


- A. 8
- B. 10
- C. 11
- D. 12

**Answer:** Option B

**Explanation:**

The figure may be labelled as shown.

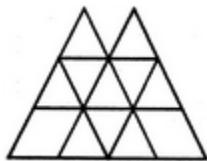


The simplest triangles are ABG, BCG, CGE, CDE, AGE and AEF i.e. 6 in number.

The triangles composed of two components each are ABE, ABC, BCE and ACE i.e. 4 in number.

There are  $6 + 4 = 10$  triangles in the figure.

21. Find the number of triangles in the given figure.

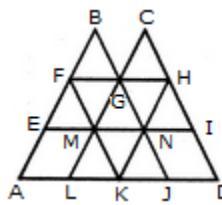


- A. 16
- B. 18
- C. 14
- D. 15

**Answer:** Option B

**Explanation:**

The figure may be labelled as shown.



The simplest triangles are BFG, CGH, EFM, FMG, GMN, GHN, HNI, LMK, MNK and KNJ i.e. 10 in number.

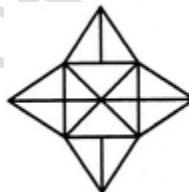
The triangles composed of three components each are FAK and HKD i.e. 2 in number.

The triangles composed of four components each are BEN, CMI, GLJ and FHK i.e. 4 in number.

The triangles composed of eight components each are BAJ and OLD i.e. 2 in number.

Thus, there are  $10 + 2 + 4 + 2 = 18$  triangles in the given figure.

22. Find the number of triangles in the given figure.

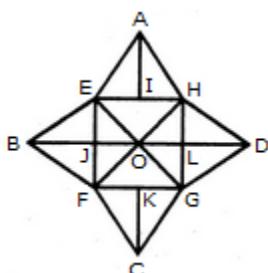


- A. 18
- B. 20
- C. 28
- D. 34

**Answer:** Option C

**Explanation:**

The figure may be labelled as shown.



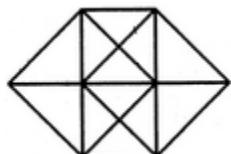
The simplest triangles are AEI, AIH, BEJ, BJF, CFK, CKG, DGL, DLH, EOJ, FOJ, FOG, LOG, HOL and HOE i.e. 14 in number.

The triangles composed of two components each are EAH, FBE, BEO, EOF, BFO, FCG, GDH, HOD, HOG and GOD i.e. 10 in number.

The triangles composed of three components each are EFH, EHG, FGH and EFG i.e. 4 in number.

Thus, there are  $14 + 10 + 4 = 28$  triangles in the given figure.

23. Find the number of triangles in the given figure.

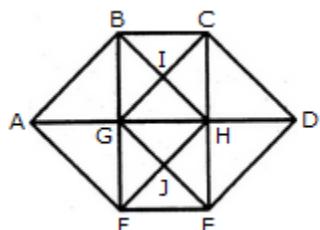


- A. 20
- B. 24
- C. 28
- D. 32

**Answer:** Option C

**Explanation:**

The figure may be labelled as shown.



The simplest triangles are ABG, BIG, BIC, CIH, GIH, CDH, HED, GHJ, HJE, FEJ, GFJ and AGF i.e. 12 in number.

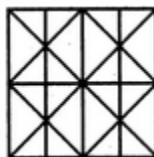
The triangles composed of two components each are ABF, CDE, GBC, BCH, GHG, BHG, GHF, GHE, HEF and GEF i.e. 10 in number.

The triangles composed of three components each are ABH, AFH, CDG and GDE i.e. 4 in number.

The triangles composed of four components each are BHF and CGE i.e. 2 in number.

Total number of triangles in the figure =  $12 + 10 + 4 + 2 = 28$ .

24. Find the minimum number of straight lines required to make the given figure.

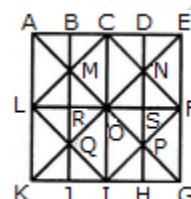


- A. 11
- B. 14
- C. 16
- D. 17

**Answer:** Option B

**Explanation:**

The figure may be labelled as shown.



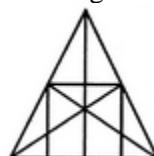
The horizontal lines are AK, BJ, CI, DH and EG i.e. 5 in number.

The vertical lines are AE, LF and KG i.e. 3 in number.

The slanting lines are LC, CF, FI, LI, EK and AG i.e. 6 in number.

Thus, there are  $5 + 3 + 6 = 14$  straight lines in the figure.

25. What is the number of straight lines and the number of triangles in the given figure.

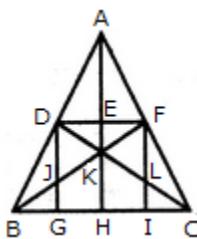


- A. 10 straight lines and 34 triangles
- B. 9 straight lines and 34 triangles
- C. 9 straight lines and 36 triangles
- D. 10 straight lines and 36 triangles

**Answer:** Option C

**Explanation:**

The figure may be labelled as shown.



The Horizontal lines are DF and BC i.e. 2 in number.

The Vertical lines are DG, AH and FI i.e. 3 in number.

The Slanting lines are AB, AC, BF and DC i.e. 4 in number.

Thus, there are  $2 + 3 + 4 = 9$  straight lines in the figure.

Now, we shall count the number of triangles in the figure.

The simplest triangles are ADE, AEF, DEK, EFK, DJK, FLK, DJB, FLC, BJG and LIC i.e. 10 in number.

The triangles composed of two components each are ADF, AFK, DFK, ADK, DKB, FCK, BKH, KHC, DGB and FIC i.e. 10 in number.

The triangles composed of three components each are DFJ and DFL i.e. 2 in number.

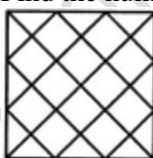
The triangles composed of four components each are ABK, ACK, BFI, CDG, DFB, DFC and BKC i.e. 7 in number.

The triangles composed of six components each are ABH, ACH, ABF, ACD, BFC and CDB i.e. 6 in number.

There is only one triangle i.e. ABC composed of twelve components.

There are  $10 + 10 + 2 + 7 + 6 + 1 = 36$  triangles in the figure.

26. Find the number of triangles in the given figure.



A. 28

B. 32

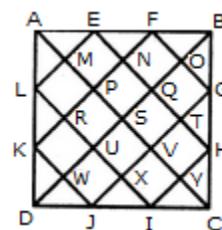
C. 36

D. 40

**Answer:** Option C

**Explanation:**

The figure may be labelled as shown.



The simplest triangles are AML, LRK, KWD, DWJ, JXI, IYC, CYH, HTG, GOB, BOF, FNE and EMA i.e. 12 in number.

The triangles composed of two components each are AEL, KDJ, HIC and FBG i.e. 4 in number.

The triangles composed of three components each are APF, EQB, BQH, GVC, CVJ, IUD, DUL and KPA i.e. 8 in number.

The triangles composed of six components each are ASB, BSC, CSD, DSA, AKF, EBH, CGJ and IDL i.e. 8 in number.

The triangles composed of twelve components each are ADB, ABC, BCD and CDA i.e. 4 in number.

Total number of triangles in the figure =  $12 + 4 + 8 + 8 + 4 = 36$ .

27. What is the number of triangles that can be formed whose vertices are the vertices of an octagon but have only one side common with that of octagon?

A. 64

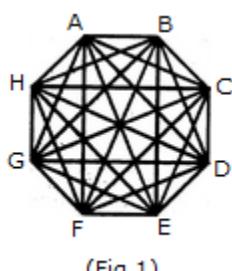
B. 32

C. 24

D. 16

**Answer:** Option B

**Explanation:**



(Fig.1)

Similarly, the triangles having only one side BC common with the octagon and also having vertices common with the octagon are BCE, BCF, BCG and BCH (as shown in Fig. 3). i.e. There are 4 such triangles.

This way, we have 4 triangles for each side of the octagon. Thus, there are  $8 \times 4 = 32$  such triangles.

28. Find the number of triangles in the given figure.

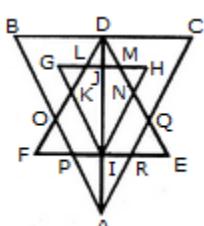


- A. 27
- B. 25
- C. 23
- D. 21

**Answer:** Option A

**Explanation:**

The figure may be labelled as shown.



The simplest triangles are GLK, DLJ, DJM, HMN, QRE, IRA, IPA and FPO i.e. 8 in number.

The triangles having two components each are BDO, CDQ, DLM, PRA, KFI, NEI, HJI, GJI, DKI and DNI i.e. 10 in number.

The triangles having four components each are DIE, DFI, DOA, DQA and GHI i.e. 5 in number.

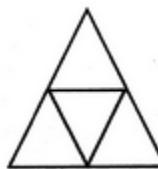
The triangles having six components each are DCA and DBA i.e. 2 in number.

DEF is the only triangle having eight components.

ABC is the only triangle having twelve components.

Thus, there are  $8+10+5+2+1=27$  triangles in the figure.

29. Find the number of triangles in the given figure.

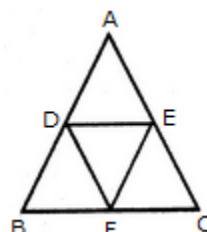


- A. 4
- B. 5
- C. 6
- D. 7

**Answer:** Option B

**Explanation:**

The figure may be labelled as shown.

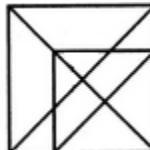


The simplest triangles are ADE, BDF, DEF and EFC i.e. 4 in number.

There is only one triangle ABC composed of four components.

Thus, there are  $4+1=5$  triangles in the given figure.

30. Find the number of triangles in the given figure.



- A. 16
- B. 18

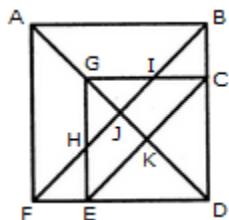
C. 19

D. 21

**Answer:** Option D

**Explanation:**

The figure may be labelled as shown.



The simplest triangles are EFH, BIC, GHJ, GIJ, EKD and CKD i.e. 6 in number.

The triangles composed of two components each are ABJ, AFJ, GCK, GEK, CED and GHI i.e. 6 in number.

The triangles composed of three components each are GCD, GED, DJB and DJF i.e. 4 in number.

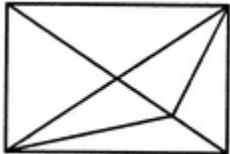
The triangles composed of four components each are ABF and GCE i.e. 2 in number.

The triangles composed of five components each are ABD and AFD i.e. 2 in number.

There is only one triangle i.e. FBD composed of six components.

Total number of triangles in the figure =  $6 + 6 + 4 + 2 + 2 + 1 = 21$ .

31. Find the number of triangles in the given figure.



A. 11

B. 13

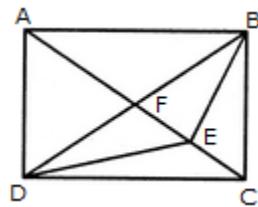
C. 15

D. 17

**Answer:** Option C

**Explanation:**

The figure may be labelled as shown.



The simplest triangles are AFB, FEB, EBC, DEC, DFE and AFD i.e. 6 in number.

The triangles composed of two components each are AEB, FBC, DFC, ADE, DBE and ABD i.e. 6 in number.

The triangles composed of three components each are ADC and ABC i.e. 2 in number.

There is only one triangle i.e. DBC which is composed of four components.

Thus, there are  $6 + 6 + 2 + 1 = 15$  triangles in the figure.

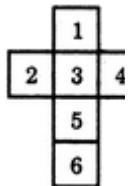
# Chapter 17 Cube and Dices

## Construction of Boxes: some important Tricks

The details of the cube formed when a sheet is folded to form a box:

### Form I

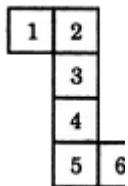
**In this case:**



- 1 lies opposite 5;
- 2 lies opposite 4;
- 3 lies opposite 6.

### Form II

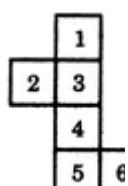
**In this case:**



- 1 lies opposite 6;
- 2 lies opposite 4;
- 3 lies opposite 5.

### Form III

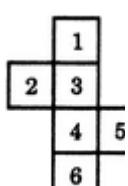
**In this case:**



- 1 lies opposite 4;
- 2 lies opposite 6;
- 3 lies opposite 5.

### Form IV

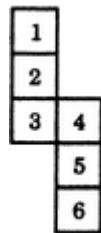
**In this case:**



- 1 lies opposite 4;
- 2 lies opposite 5;
- 3 lies opposite 6.

### Form V

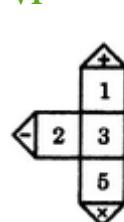
**In this case:**



- 1 lies opposite 3;
- 2 lies opposite 5;
- 4 lies opposite 6.

### Form VI

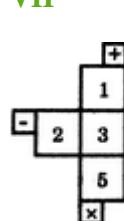
**In this case:**



- $\begin{array}{|c|} \hline + \\ \hline \end{array}$  will be the one of the faces of the cube and it lies opposite 3;
- 2 lies opposite 4;
- 1 lies opposite 5.

### Form VII

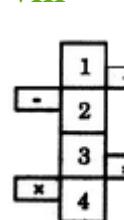
**In this case:**



- $\begin{array}{|c|} \hline - \\ \hline \end{array}$  will be the one of the faces of the cube and it lies opposite 3;
- 2 lies opposite 4;
- 1 lies opposite 5.

### Form VIII

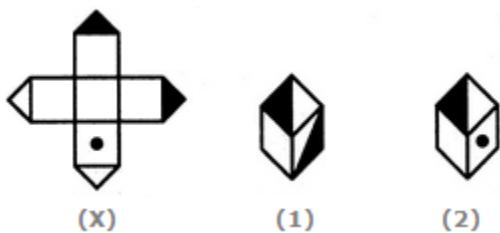
**In this case:**



- $\begin{array}{|c|} \hline + \\ \hline \end{array}$  and  $\begin{array}{|c|} \hline - \\ \hline \end{array}$  are two faces of the cube that lie opposite to each other.
- 1 lies opposite 3;
- 2 lies opposite 4;

1.

Choose the box that is similar to the box formed from the given sheet of paper (X).



- A. 1 and 2 only
- B. 2 and 4 only
- C. 2 and 3 only
- D. 1 and 4 only

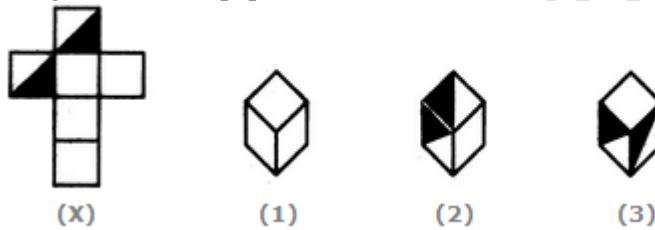
**Answer:** Option C

**Explanation:**

The fig. (X) is similar to the **Form VI**. So, when a cube is formed by folding the sheet

shown in fig. (X), then is one of the faces of the cube. However, the cube in fig. (1) has two such faces and fig. (4) has a face which is completely shaded. So, these two cubes cannot be formed. Hence, only the cubes in figures (2) and (3) can be formed.

2. Choose the box that is similar to the box formed from the given sheet of paper (X).



- A. 1 and 4 only
- B. 3 and 4 only
- C. 1 and 2 only
- D. 2 and 3 only

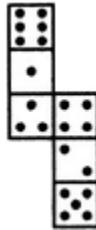
**Answer:** Option A

**Explanation:**

The fig. (X) is similar to the **Form I**. So, when the sheet shown in fig. (X) is folded to form a cube then one of the two half-shaded faces lies opposite to one of the blank faces and the other half-shaded face lies opposite to another blank face. The two remaining blank faces lie opposite to each other. Thus, both the cubes shown in figures (1).and (4) can be formed when

the sheet shown in fig. (X) is folded. Also, though the cubes shown in figures (2) and (3) have faces that can appear adjacent to each other but the cube formed by folding the sheet in fig. (X) cannot be rotated to form either of the two. Hence, the cubes in figures (2) and (3) cannot be formed.

3. How many dots lie opposite to the face having three dots, when the given figure is folded to form a cube?



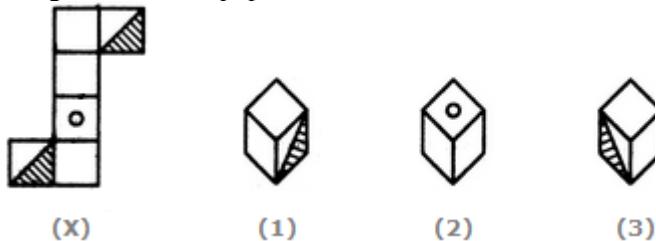
- A. 2
- B. 4
- C. 5
- D. 6

**Answer:** Option D

**Explanation:**

The given figure is similar to **Form V**. Therefore, when this figure is folded to form a cube then the face bearing six dots will lie opposite the face bearing three dots.

4. Choose the box that is similar to the box formed from the given sheet of paper (X).



- A. 1 and 3 only
- B. 1 and 4 only
- C. 2 and 4 only
- D. 3 and 4 only

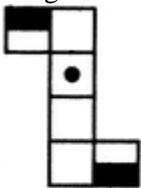
**Answer:** Option A

**Explanation:**

The fig. (X) is similar to **Form II**. So, when the sheet shown in fig. (X) is folded to form a cube then the two half-shaded faces lie opposite to each other, the face

bearing a circle lies opposite to one of the two blank faces and the two remaining blank faces lie opposite to each other. Therefore, the cubes shown in fig. (4) which has the two half-shaded faces adjacent to each other, cannot be formed by folding the sheet shown in fig. (X). Also, the cube shown in fig. (2) has the face bearing a circle adjacent to two blank faces. This is not possible since there is one blank face opposite to the circle and one blank face opposite to the third blank face. Hence, only the cubes in figures (1) and (3) can be formed.

Choose the box that is similar to the box formed from the given sheet of paper (X).



(X)



(1)



(2)



(3)

A 1 and 2 only

B 2 and 3 only

C 2 and 4 only

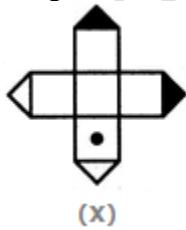
D 1, 2, 3 and 4

**Answer:** Option D

**Explanation:**

The fig. (X) is similar to **Form II**. So, when a cube is formed by folding the sheet shown in fig. (X), then the two half-shaded faces lie opposite to each other and one of the three blank faces appears opposite to the face bearing a dot. Clearly, each one of the four cubes shown in figures (1), (2), (3) and (4) can be formed by folding the sheet shown in fig. (X).

Choose the box that is similar to the box formed from the given sheet of paper (X).



(X)



(1)



(2)



(3)

A 1 and 2 only

B 2 and 4 only

C 2 and 3 only

D 1 and 4 only

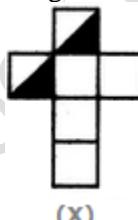
**Answer:** Option C

**Explanation:**

The fig. (X) is similar to the **Form VI**. So, when a cube is formed by folding the sheet shown in fig. (X),

then □ is one of the faces of the cube. However, the cube in fig. (1) has two such faces and fig. (4) has a face which is completely shaded. So, these two cubes cannot be formed. Hence, only the cubes in figures (2) and (3) can be formed.

2. Choose the box that is similar to the box formed from the given sheet of paper (X).



(X)



(1)



(2)



(3)

A 1 and 4 only

B 3 and 4 only

C 1 and 2 only

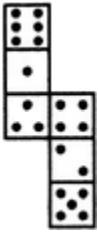
D 2 and 3 only

**Answer:** Option A

**Explanation:**

The fig. (X) is similar to the **Form I**. So, when the sheet shown in fig. (X) is folded to form a cube then one of the two half-shaded faces lies opposite to one of the blank faces and the other half-shaded face lies opposite to another blank face. The two remaining blank faces lie opposite to each other. Thus, both the cubes shown in figures (1) and (4) can be formed when the sheet shown in fig. (X) is folded. Also, though the cubes shown in figures (2) and (3) have faces that can appear adjacent to each other but the cube formed by folding the sheet in fig. (X) cannot be rotated to form either of the two. Hence, the cubes in figures (2) and (3) cannot be formed.

3. How many dots lie opposite to the face having three dots, when the given figure is folded to form a cube?



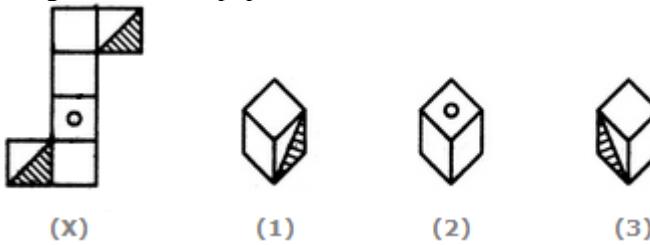
- A. 2
- B. 4
- C. 5
- D. 6

**Answer:** Option D

**Explanation:**

The given figure is similar to **Form V**. Therefore, when this figure is folded to form a cube then the face bearing six dots will lie opposite the face bearing three dots.

4. Choose the box that is similar to the box formed from the given sheet of paper (X).



- A. 1 and 3 only
- B. 1 and 4 only
- C. 2 and 4 only
- D. 3 and 4 only

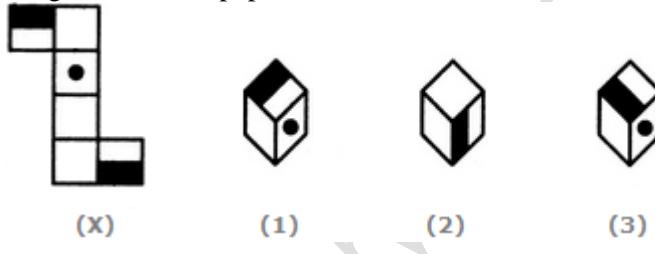
**Answer:** Option A

**Explanation:**

The fig. (X) is similar to **Form II**. So, when the sheet shown in fig. (X) is folded to form a cube then the two half-shaded faces lie opposite to each other, the face bearing a circle lies opposite to one of the two blank faces and the two remaining blank faces lie opposite to each other. Therefore, the cubes shown in fig. (4) which has the two half-shaded faces adjacent to each other, cannot be formed by folding the sheet shown in fig. (X). Also, the cube shown in fig. (2) has the face bearing a circle adjacent to two blank faces. This is not possible since there is one blank face opposite to the

circle and one blank face opposite to the third blank face. Hence, only the cubes in figures (1) and (3) can be formed.

5. Choose the box that is similar to the box formed from the given sheet of paper (X).



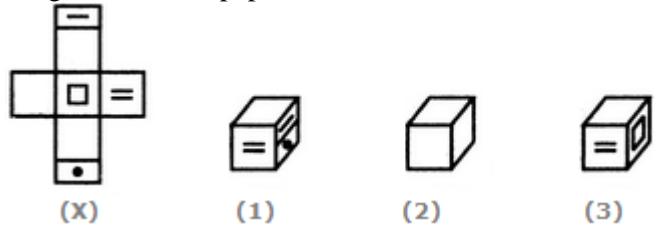
- A. 1 and 2 only
- B. 2 and 3 only
- C. 2 and 4 only
- D. 1, 2, 3 and 4

**Answer:** Option D

**Explanation:**

The fig. (X) is similar to **Form II**. So, when a cube is formed by folding the sheet shown in fig. (X), then the two half-shaded faces lie opposite to each other and one of the three blank faces appears opposite to the face bearing a dot. Clearly, each one of the four cubes shown in figures (1), (2), (3) and (4) can be formed by folding the sheet shown in fig. (X).

6. Choose the box that is similar to the box formed from the given sheet of paper (X).



- A. 1 only
- B. 1 and 3 only
- C. 1, 3 and 4 only
- D. 1, 2, 3 and 4

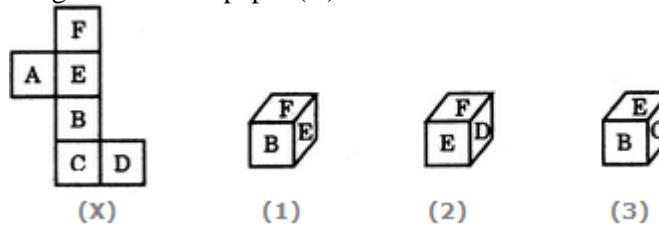
**Answer:** Option C

**Explanation:**

When the sheet in fig. (X) is folded, then one of the faces of the cube formed will be of the form and this face will lie opposite the face bearing a square. Also, one of the blank faces lies opposite another

blank face and the third blank face lies opposite the face bearing an '=' sign. Clearly, all the three blank faces cannot appear adjacent to each other. So, the cube shown in fig. (2) which has all the three blank faces adjacent to each other cannot be formed. Hence, only the cubes shown in figures A, C and D can be formed.

7. Choose the box that is similar to the box formed from the given sheet of paper (X).



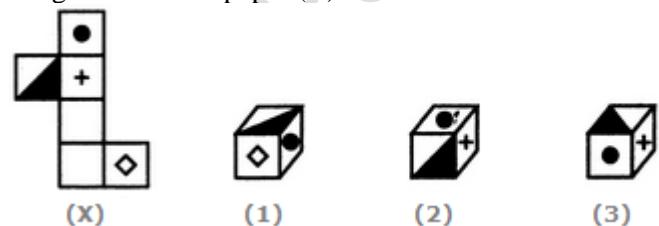
- A. 1 only
- B. 2 only
- C. 1 and 3 only
- D. 1, 2, 3 and 4 only

**Answer:** Option B

**Explanation:**

The fig. (X) is similar to the **Form III**. So, when the sheet in fig. (X) is folded to form a cube, then 'F' appears opposite 'B', 'E' appears opposite 'C' and 'A' appears opposite 'D'. Therefore, the cube in fig. (1) which shows 'F' adjacent to 'B' the cube in fig. (3) which shows 'E' adjacent to 'C' and the cube in fig. (4) which shows 'A' adjacent to 'D' cannot be formed. Hence, only the cube in fig.(2) can be formed.

8. Choose the box that is similar to the box formed from the given sheet of paper (X).



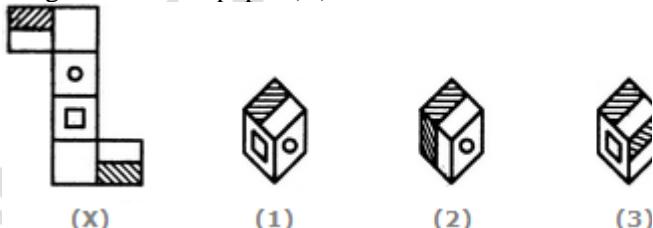
- A. 1 only
- B. 2 only
- C. 3 only
- D. 4 only

**Answer:** Option B

**Explanation:**

The fig. (X) is similar to the **Form III**. So, when the sheet in fig. (X) is folded to form a cube, then the half-shaded face appears opposite to the face bearing a rhombus, the face with a black circle appears opposite to one of the two blank faces and the face with a '+' sign appears opposite to the other blank face. Clearly, the cubes shown in figures (1) and (4) cannot be formed since they have the half-shaded face adjacent to the face bearing the rhombus. Also, though the cube shown in fig. (3) has faces that can appear adjacent to each other but the cube formed by folding the sheet in fig. (X) cannot be rotated to form fig. (3). Hence, the cube in fig. (3) cannot be formed. Thus, only the cube shown in fig. (2) can be formed.

9. Choose the box that is similar to the box formed from the given sheet of paper (X).



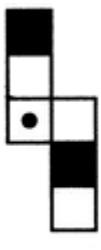
- A. 1 only
- B. 2 only
- C. 3 only
- D. 4 only

**Answer:** Option A

**Explanation:**

The fig. (X) is similar to the **Form II**. So, when the sheet shown in fig. (X) is folded to form a cube then the two half-shaded faces lie opposite to each other, the face bearing a square lies opposite to one of the two blank faces and the face bearing a circle lies opposite to the other blank face. Therefore, the cubes shown in figures (2) and (3) which have the two half-shaded faces adjacent to each other, cannot be formed by folding the sheet shown in fig. (X). Also, though the cube shown in fig. (4) has faces that can appear adjacent to each other but the cube formed by folding the sheet in fig. (X) cannot be rotated to form the cube in fig. (4). Hence, only the cube in fig. (1) can be formed.

10 Choose the box that is similar to the box formed from the given sheet of paper (X).



(X)



(1)



(2)



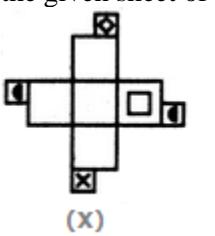
(3)

- A. 2 and 3 only
- B. 1, 3 and 4 only
- C. 2 and 4 only
- D. 1 and 4 only

**Answer:** Option B**Explanation:**

The fig. (X) is similar to the **Form V**. So, when the sheet in fig. (X) is folded to form a cube, then the face bearing a dot lies opposite to one of the shaded faces. Therefore, the cube shown in fig. (2) which has both the shaded faces adjacent to the face bearing the dot, cannot be formed. Hence, the cubes shown in figures (1), (2) and (4) can be formed.

- 11 Choose the box that is similar to the box formed from the given sheet of paper (X).



(1)



(2)



(3)

- A. 1, 2 and 3 only
- B. 2 and 3 only
- C. 1, 3 and 4 only
- D. 2, 3 and 4 only

**Answer:** Option D**Explanation:**

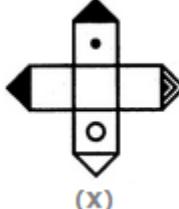
The fig. (X) is similar to the **Form VII**. So, when a cube is formed by folding the sheet shown in fig. (X),

then

is one of the faces of the cube and this face lies opposite to a blank face. Also, a face bearing a square lies opposite to another blank face. The remaining two blank faces lie opposite to each other. Clearly, in the cube shown in fig. (1), the face consisting of the four symbols is not the same as that

formed (as shown above). Hence, the cube in fig. (1) cannot be formed.

- 12 Choose the box that is similar to the box formed from the given sheet of paper (X).



(1)



(2)



(3)

- A. 1 and 2 only
- B. 1, 2 and 3 only
- C. 1 and 3 only
- D. 1, 2, 3 and 4

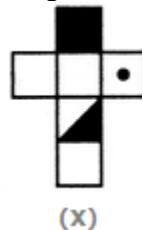
**Answer:** Option A**Explanation:**

The fig. (X) is similar to the **Form VI**. So, when a cube is formed by folding the sheet shown in fig. (X),

then

is one of the faces of the cube and this face lies opposite to a blank face. Also, a face bearing a circle lies opposite to one bearing a dot. Clearly, this cube does not have faces as shown in the cubes in figures (3) and (4). Hence, only the cubes shown in figures (1) and (2) can be formed.

- 13 Choose the box that is similar to the box formed from the given sheet of paper (X).



(1)



(2)



(3)

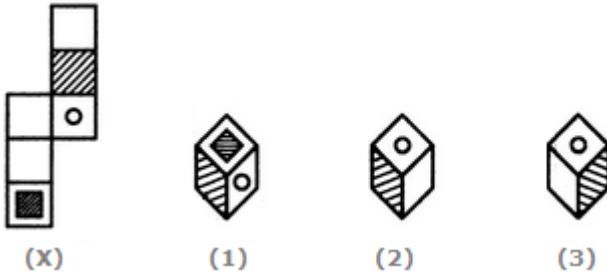
- A. 1 and 3 only
- B. 2, 3 and 4 only
- C. 2 only
- D. 3 and 4 only

**Answer:** Option C**Explanation:**

The fig. (X) is similar to the **Form I**. So, when the sheet in fig. (X) is folded to form a cube, then the completely shaded face lies opposite to the half

shaded face. Therefore, the cubes shown in figures (1) and (3) which have the completely shaded face adjacent to the half-shaded face cannot be formed. Since Fig 4 doesn't have at-least one shaded face, it cannot be formed. Hence, only the cubes in figure (2) can be formed.

- 14 Choose the box that is similar to the box formed from the given sheet of paper (X).



- A. 1 and 2 only
- B. 1, 2 and 4 only
- C. 1 and 4 only
- D. 1, 2 and 3 only

**Answer:** Option B

**Explanation:**

The fig. (X) is similar to the **Form V**. So, when the sheet shown in fig. (X) is folded to form a cube then the shaded face lies opposite to one of the blank faces, the face bearing a circle lies opposite to another blank face and the face bearing a shaded square lies opposite to the third blank face. Thus, each one of the cubes shown in figures (1), (2) and (4) can be formed. Also, though the cube shown in fig. (3) has faces that can appear adjacent to each other but the cube formed by folding the sheet in fig. (X) cannot be rotated to form fig. (3). Hence, the cube in fig.(3) cannot be formed.

- 15 Choose the box that is similar to the box formed from the given sheet of paper (X).



- A. 1 and 2 only
- B. 2, 3 and 4 only
- C. 4 only

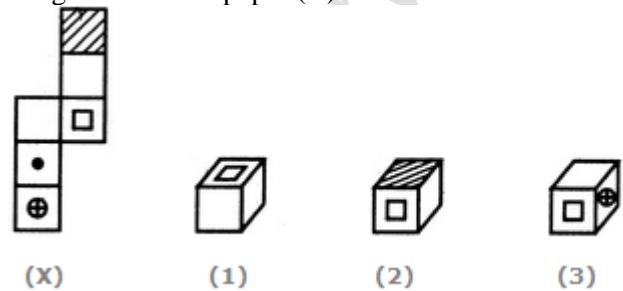
- D. 3 and 4 only

**Answer:** Option D

**Explanation:**

The fig. (X) is similar to the **Form V**. So, when the sheet in fig. (X) is folded to form a cube, then the face bearing a square lies opposite to the face bearing a circle. Therefore, the cubes shown in figures (1) and (2) which have the faces bearing the square and the circle adjacent to each other, cannot be formed. Hence, only the cubes in figures (3) and (4) can be formed.

- 16 Choose the box that is similar to the box formed from the given sheet of paper (X).



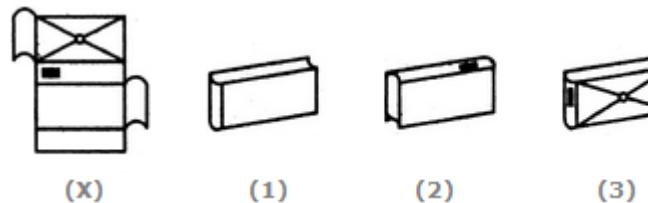
- A. 1 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 4 only

**Answer:** Option C

**Explanation:**

The fig. (X) is similar to **Form V**. So, when the sheet shown in fig. (X) is folded to form a cube, then the face with shading lies opposite to the free bearing a square, the face bearing a dot lies opposite to a blank face and the face bearing a circle (with a '+' sign inside it) lies opposite to another blank face. The cubes in figures (2) and (4) have the shaded face adjacent to the face bearing a square. Therefore, the cubes in these two figures cannot be formed. Hence, only cubes in figures (1) and (3) can be formed.

- 17 Which of the following finished patterns can be obtained from the piece of cardboard (X) shown below?



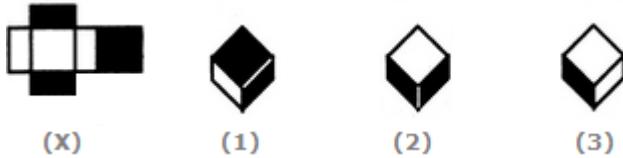
- A. 1
- B. 2
- C. 3
- D. 4

**Answer:** Option A

**Explanation:**

The pattern on fig. (X) and also the fact that the faces are rectangle, indicate that only fig. (1) can be obtained by folding fig. (X).

- 18 Choose the box that is similar to the box formed from the given sheet of paper (X).



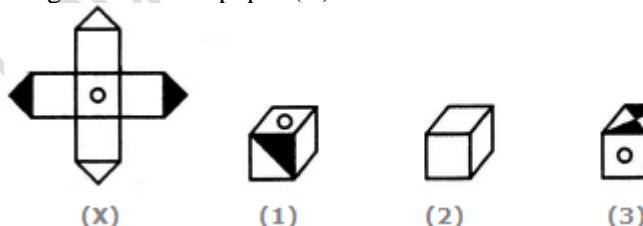
- A. 1 and 3 only
- B. 2 and 4 only
- C. 3 and 4 only
- D. 1 and 4 only

**Answer:** Option A

**Explanation:**

The fig. (X) is similar to **Form I**. So, when the sheet shown in fig. (X) is folded to form a box (cuboid), then the two rectangular-shaped faces lie opposite to each other, two rectangular white faces lie opposite to each other and the two square shaped faces (one shaded and one white) lie opposite to each other. Clearly, the cuboids shown in figures (2) and (4) cannot be formed as in each of the two cuboids the two shaded rectangular faces appear adjacent to each other. So, only the cuboids in figures (1) and (3) can be formed.

- 19 Choose the box that is similar to the box formed from the given sheet of paper (X).



- A. 1 only

- B. 2 only
- C. 3 only
- D. 4 only

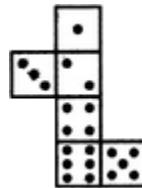
**Answer:** Option D

**Explanation:**

The fig. (X) is similar to the **Form VI**. So, when the cube is formed by folding the sheet shown in fig. (X), then is one of the faces of the cube and this face lies opposite to the face bearing a circle. Also, one of the blank faces lies opposite to another blank face and yet another blank face lies opposite to the fourth blank face. Thus, out of the four blank faces, no three faces can appear adjacent to each other.

Clearly, the cube in fig. (1) cannot be formed since there is no face of the type , the cube in fig. (2) cannot be formed since it shows three blank faces adjacent to each other and the cube in fig. (3) cannot be formed since the face cannot appear adjacent to the face bearing the circle. Hence, only the cube in fig. (4) can be formed.

20. When the following figure is folded to form a cube, how many dots lie opposite the face bearing five dots?



- A. 1
- B. 2
- C. 3
- D. 4

**Answer:** Option C

**Explanation:**

The given figure is similar to **Form III**. Therefore, when this figure is folded to form a cube then the face bearing three dots will lie opposite the face bearing five dots.