



**WELCOME**





# CODING & DECODING





1. In a certain code language, 'TRAIN' is written as 'WUDLQ' and 'ROAD' is written as 'URDG'. How will 'TAXI' be written in that language?

(a) WDAL

(b) WDBL

(c) WEAL

(d) WEAL



2. In certain code language, if DOUBLE is written as FRYGRL, then how will METHYL be written in the same code language?

- (a) GRXFQJ
- (b) GRXEOH
- (c) OHXMES
- (d) FQYFRK



3. If in a coding system, **SHELVES** is coded as **1919515222219**, and **NOMINEE** is coded as **1412131814225**, then how will **SEIZURE** be coded in the same coding system?

- (a) 8518266185
- (b) 1922912195
- (c) 19229262185
- (d) 8221816922



4. In a code language, SAUCE is written as ASVEC. How will MEANT be written as in that language?

(a) EMANT

(b) EMBTN

(c) MEBTN

(d) EMCTN

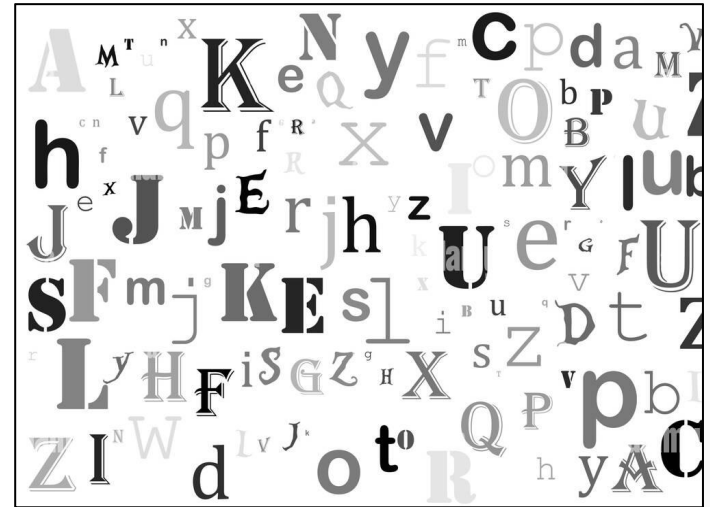


5. In a certain code language, 'apple' is called 'pear', 'pear' is called 'orange', 'orange' is called 'guava' and 'guava' is called 'melon'. In this language, which one of the following will be a citrus fruit?

- (a) Melon
- (b) Guava
- (c) Pear
- (d) Orange



# SERIES





1. In the following question, a number series is given with one term missing. Choose the correct alternative that will continue the same pattern and replace the question mark in the given series

20, 19, 17, \_\_\_\_, 10, 5

a) 16

b) 18

c) 14

d) 24



7. In the following question, a number series is given with one term missing. Choose the correct alternative that will continue the same pattern and replace the question mark in the given series

240, 120, \_\_\_\_\_, 180, 360, 900

a) 120

b) 148

c) 130

d) 150



3. In the following question, a number series is given with one term missing. Choose the correct alternative that will continue the same pattern and replace the question mark in the given series

50, 86, \_\_\_\_, 127, 136, 140, 141

a) 123

b) 99

c) 111

d) 103

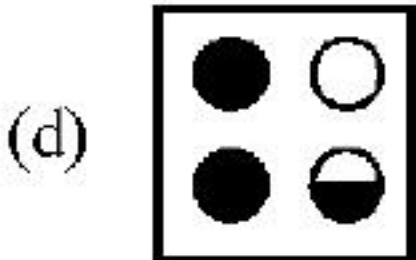
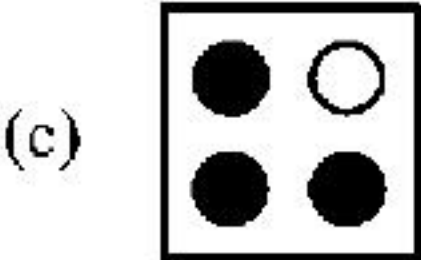
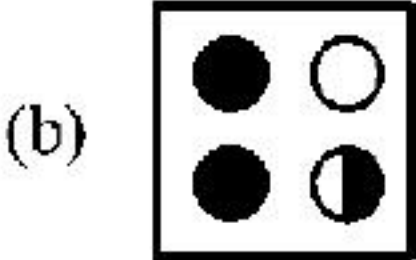
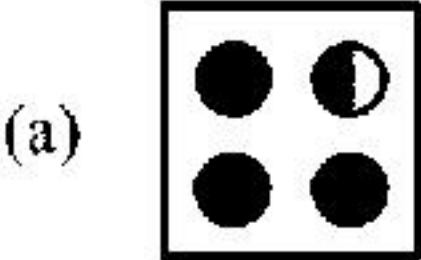
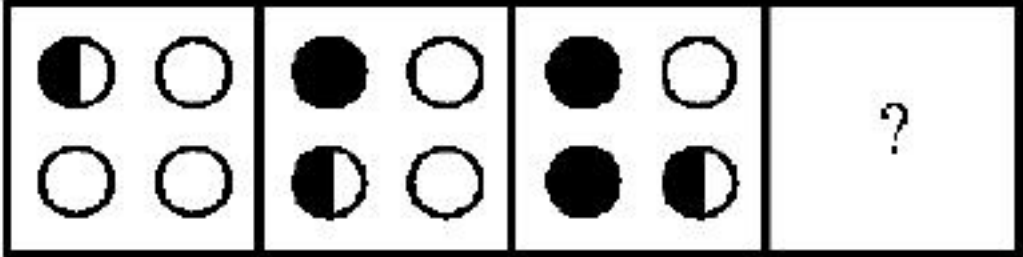


4. In the following question various terms of an alphabet series are given with one or more terms missing as shown by ( \_\_\_\_ ). Choose the missing term out of the given alternatives

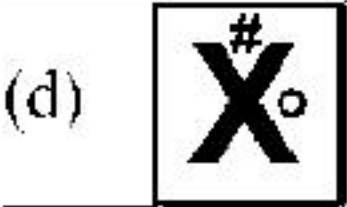
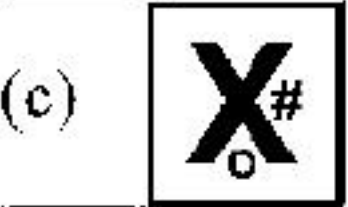
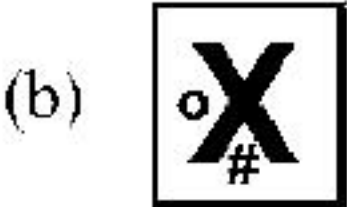
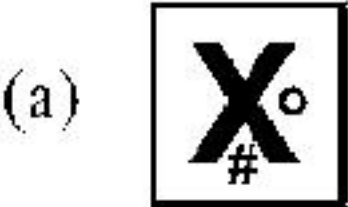
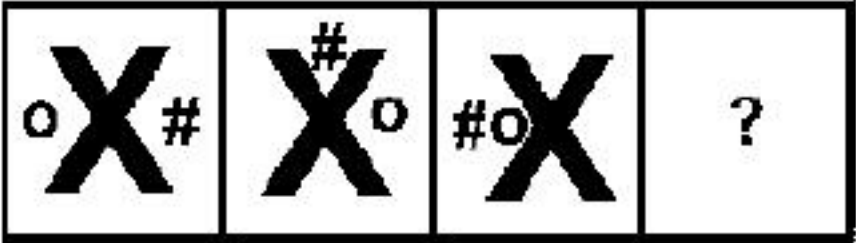
SHG, RIF, QJE, PKD, \_\_\_\_\_

- a) OLE
- b) OLC
- c) OME
- d) OCW

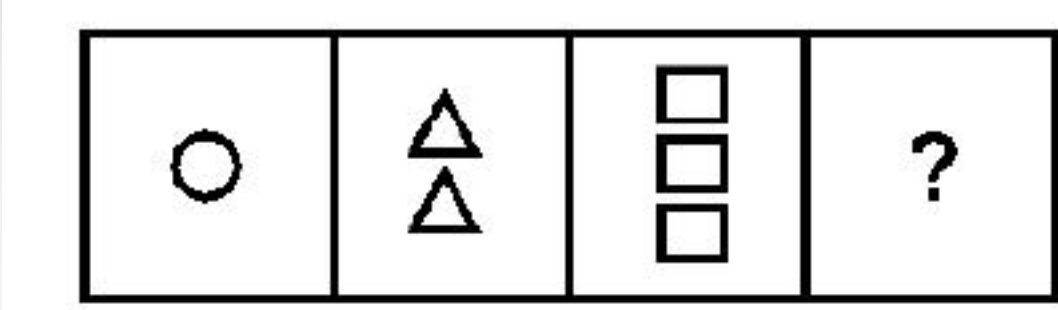
5. Select the figure that will come next in the following figure series



6. Select the figure that will come next in the following figure series



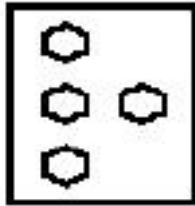
7. Select the figure that will come next in the following figure series



a)



b)



c)



d)



# Clock



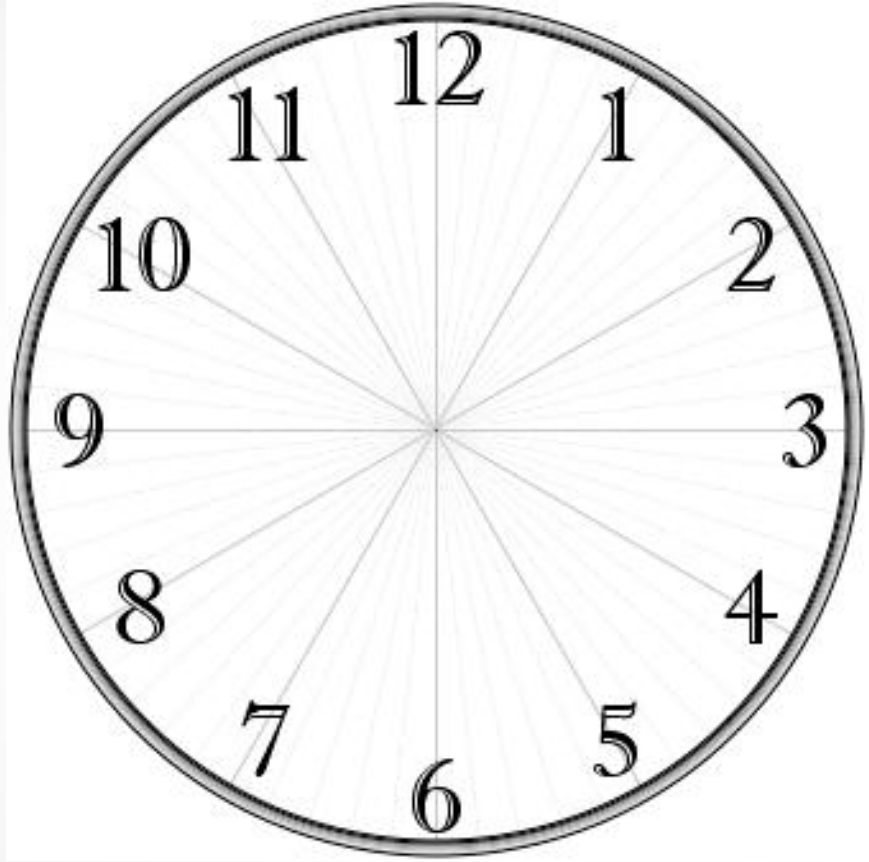


Hour Hand



Minute Hand

Second Hand



## Mirror Image

Subtract the given time from **11:60 or 23:60**



## Water Image

**a) Minute is Less than or Equal to 30**

Subtract the given time from **18:30**

**b) Minute is more than 30**

Subtract the given time from **17:90**



# Find The Mirror Image



<b>TIME</b>	<b>MIRROR IMAGE</b>	<b>TIME</b>	<b>MIRROR IMAGE</b>
03:00		08:45	
03:15		04:15	
12:00		05:36	
09:00		04:32	


# Find The Water Image



<b>TIME</b>	<b>WATER IMAGE</b>	<b>TIME</b>	<b>WATER IMAGE</b>
03:00		08:45	
03:15		04:15	
12:00		05:36	
09:00		04:32	

# Angle Between Hands




$$\Theta = 30H - \frac{11}{2}M$$

Where H = Hour

M = Minute

Example: If time is given that 10:42; then H = 10 & M = 42

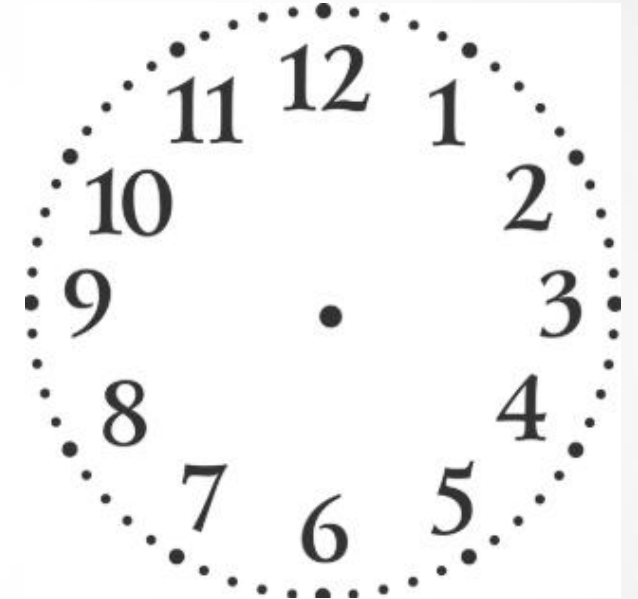
1. Find the angle between the hands of the clock when time is 7.45 am?

a)  $37.5^\circ$

b)  $45^\circ$

b)  $33^\circ$

d)  $49.25^\circ$



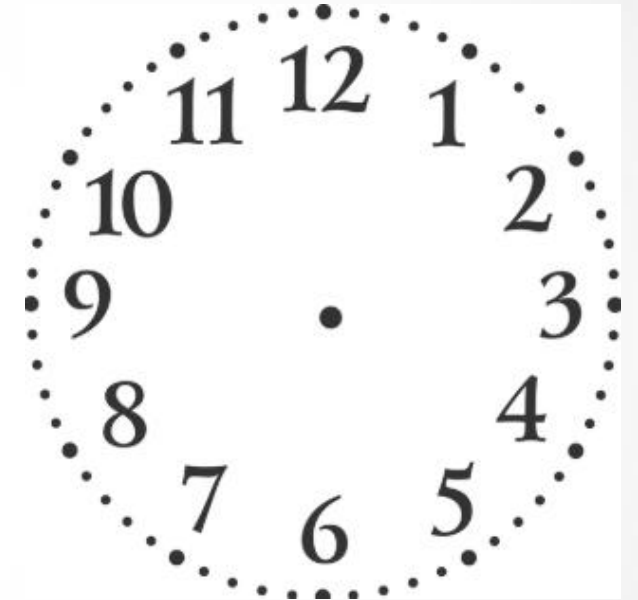
2. What is the measure of the smaller of the two angles formed between the hour hand and the minute hand of a clock when it is 6:44 p.m.?

a)  $62^\circ$

b)  $62.5^\circ$

c)  $83.5^\circ$

d)  $84^\circ$



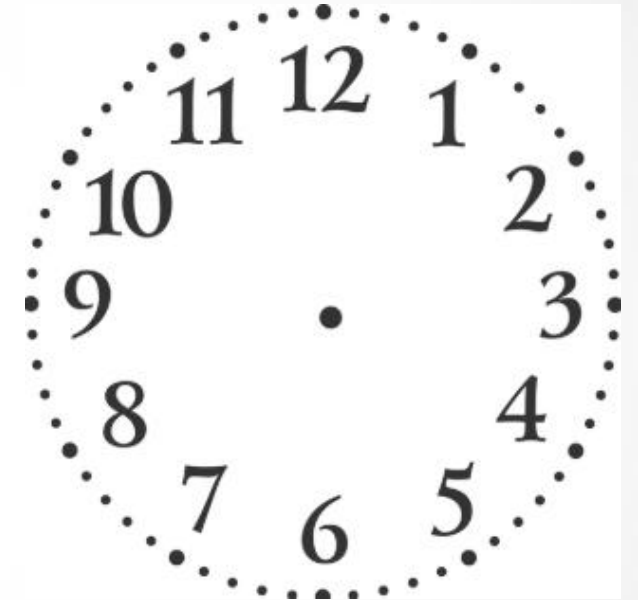
3. What will be the measure of the acute angle formed between the hour hand and the minute hand at 6:43 a.m.?

a)  $56^\circ$

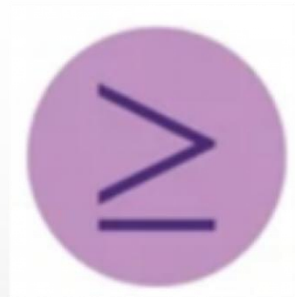
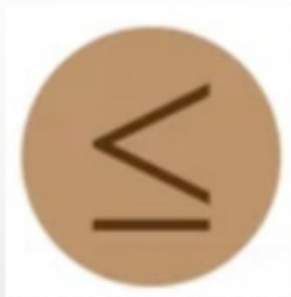
b)  $56.5^\circ$

c)  $78^\circ$

d)  $21.5^\circ$



# Inequalities





1. **Statement :**  $A < L < T \leq R \leq H > K$

**Conclusions :**

I)  $H > L$

II)  $K > T$

(a) Only Conclusion I follows

(b) Only Conclusion II follows

(c) Either Conclusion I or II follows

(d) Neither Conclusion I or II follows

(e) Both Conclusion I and II follows

**2. Statement :**  $P = N > D \geq G < B = J$

**Conclusions :**

I)  $G < P$

II)  $G < J$

(a) Only Conclusion I follows

(b) Only Conclusion II follows

(c) Either Conclusion I or II follows

(d) Neither Conclusion I or II follows

(e) Both Conclusion I and II follows



3. **Statement :**  $F \leq C \geq V = Z > X = U$

**Conclusions :**

I)  $V < U$

II)  $Z < F$

(a) Only Conclusion I follows

(b) Only Conclusion II follows

(c) Either Conclusion I or II follows

(d) Neither Conclusion I or II follows

(e) Both Conclusion I and II follows



4. **Statement :**  $Q \leq E = I > N \geq R \geq S$

**Conclusions :**

I)  $E = S$

II)  $S \leq N$

(a) Only Conclusion I follows

(b) Only Conclusion II follows

(c) Either Conclusion I or II follows

(d) Neither Conclusion I or II follows

(e) Both Conclusion I and II follows



5. **Statement :**  $H \geq I = J > K \leq L$

**Conclusions :**

I)  $K < H$

II)  $L \geq I$

(a) Only Conclusion I follows

(b) Only Conclusion II follows

(c) Either Conclusion I or II follows

(d) Neither Conclusion I or II follows

(e) Both Conclusion I and II follows



# SYLLOGISM

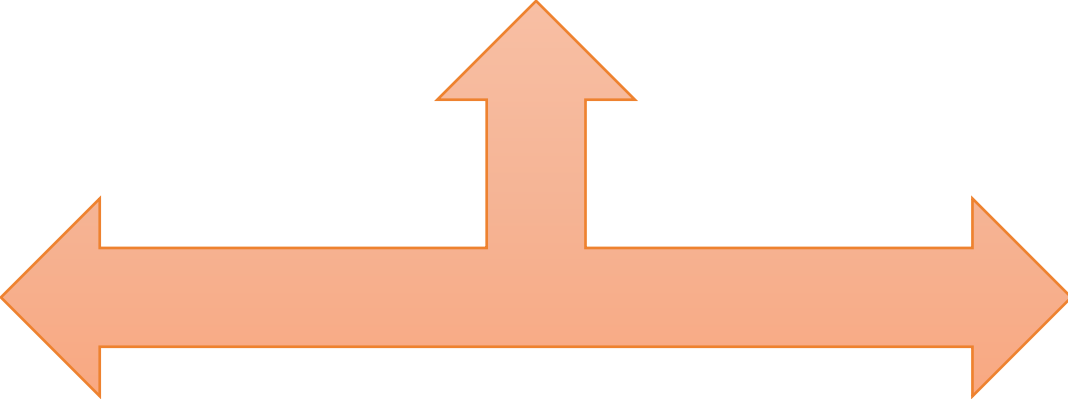
A large, semi-transparent wireframe head is shown in profile, facing right. Inside the head, three interlocking gears are visible: a red one on the left, a yellow one in the center, and a blue one on the right. The word "SYLLOGISM" is faintly visible in a reddish-brown color across the middle of the head.A cluster of several interlocking grey gears is positioned in the top right corner of the image.A row of five wooden blocks is shown, each with a letter on top. The letters are L (red), O (blue), G (blue), I (yellow), and C (yellow). The blocks are arranged in a row and have a reflection below them.

LOGIC



CONCLUSIONS

DEFINITE CONCLUSION



POSSIBILITY CONCLUSION



## **DEFINITE CONCLUSION**

Conclusion, one that is absolutely and unconditionally true based on the given statements, regardless of any other possibilities

## **POSSIBILITY CONCLUSION**

A possibility conclusion means that while the conclusion isn't definitively proven by the given statements, it's plausible or could potentially be true given the relationships described



## How to identify possibility conclusions?

A possibility conclusion includes words like **May be, can be, is a possibility, could be** etc.

## How to solve?

You can solve syllogism drawing syllogism



## Venn Diagram

Venn diagram is a visual representation of the relationships between two or more sets or groups, often using overlapping circles to show similarities and differences.

You can draw Venn diagram using any polygon, but here we draw circular Venn diagrams

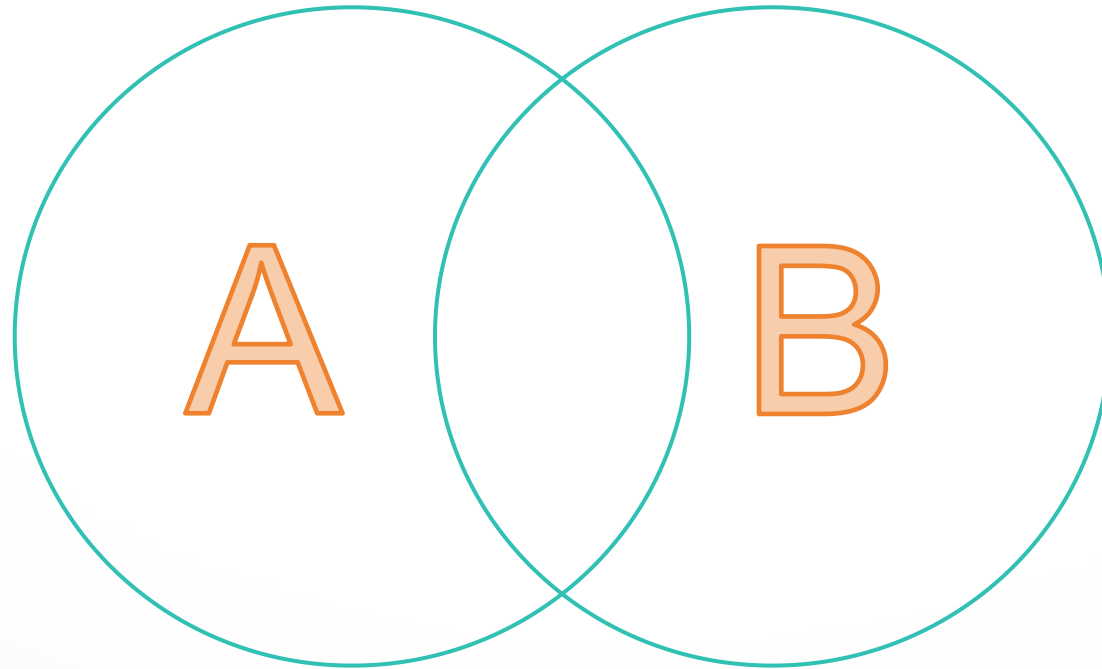
### Rules

1. Take statements are 100% true.
2. Avoid the logic of statement.
3. Draw Venn diagram with **minimum overlapping** concept



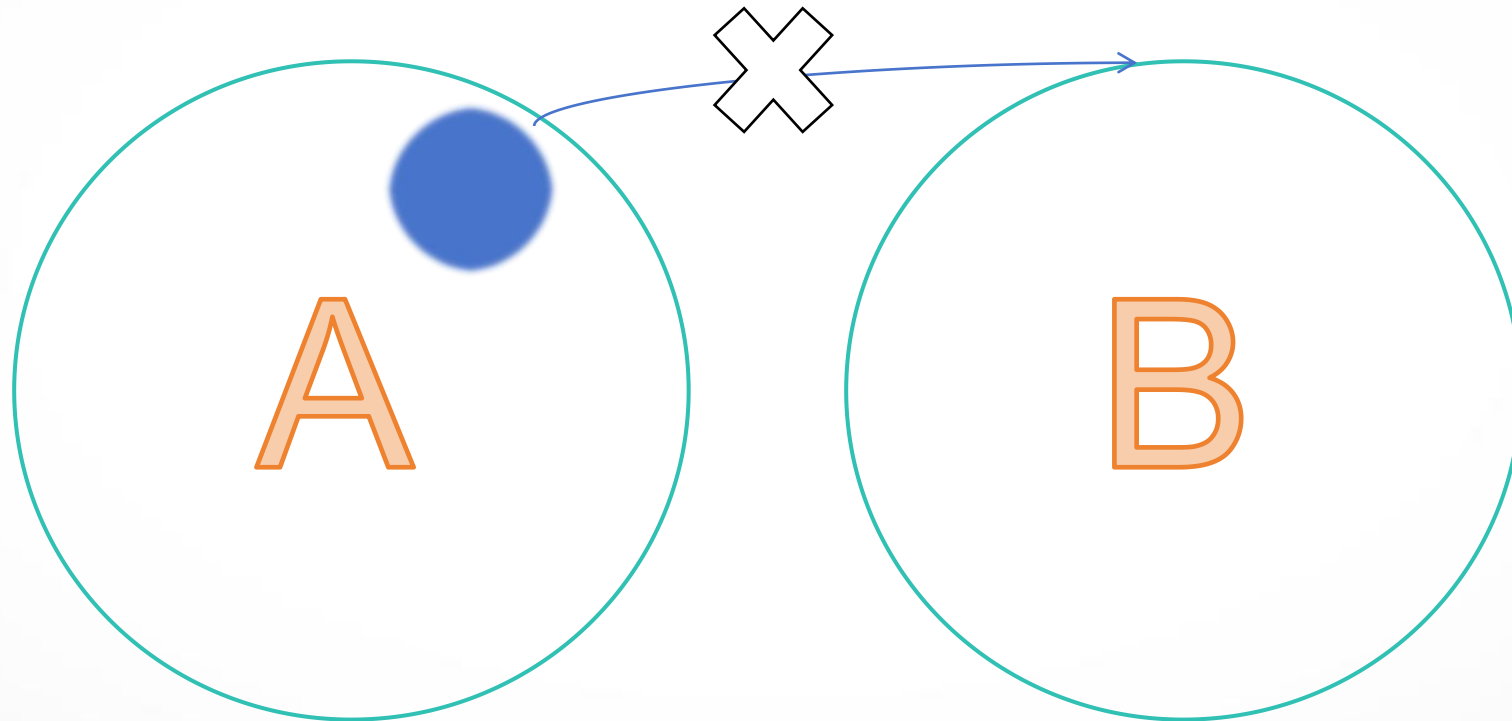
# Basic Venn Diagram

## 1. Some A are B



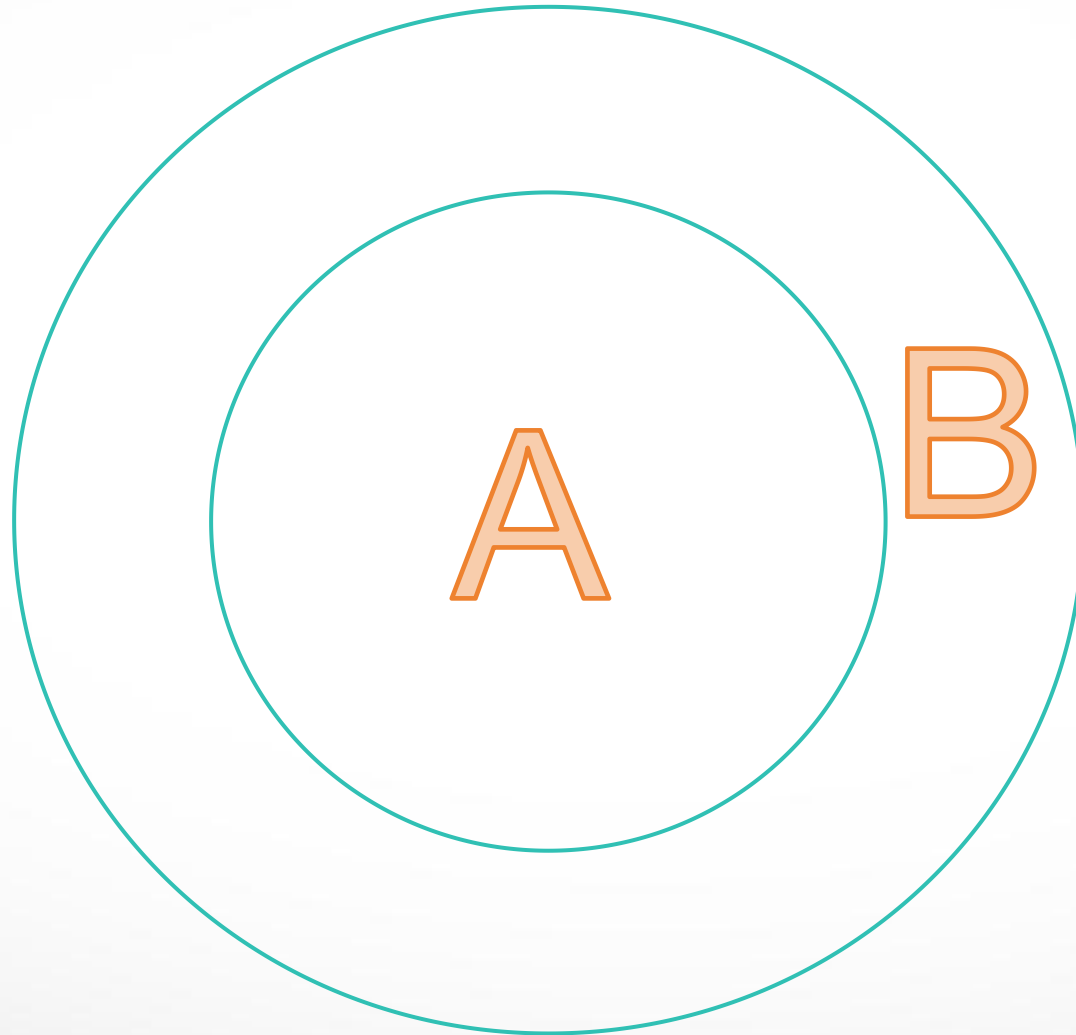
# Basic Venn Diagram

## 2. Some A are not B



## Basic Venn Diagram

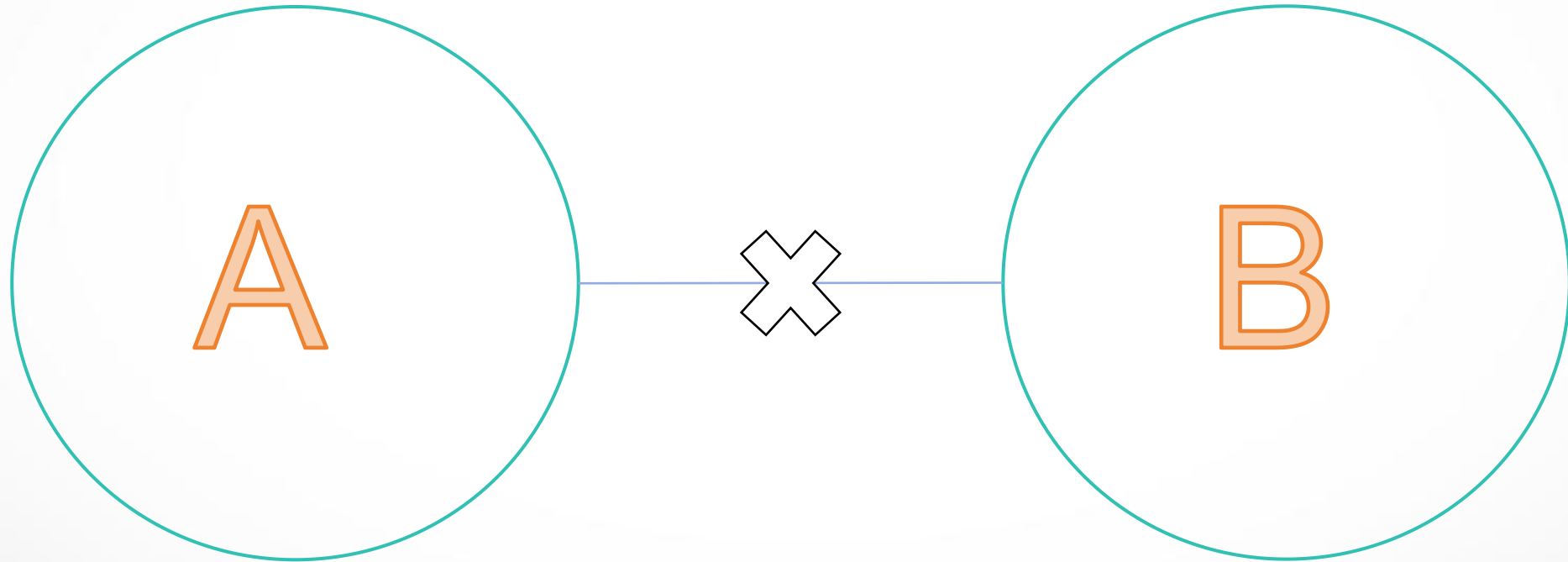
### 3. All A are B



# Basic Venn Diagram



## 4. No A are B



Statements:

Some A are B

Some B are C

Some C are D

No D is E

All E are F



1. Statements:

Some doctors are lawyers.

Some lawyers are architects.

Conclusions:

I. Some doctors are architects.

II. All architects are doctors

(a) If only I follows.

(b) If only II follows.

(c) If either I or II follows.

(d) If neither I nor II follows.

(e) If both I and II follow.





## 2. Statements:

Some queues are rows.

No row is a circular.

## Conclusions:

I. All circulars are queues.

II. Some circulars are queues

(a) If only I follows.

(b) If only II follows.

(c) If either I or II follows.

(d) If neither I nor II follows.

(e) If both I and II follow.



### 3. Statements:

All odors are sour.

No sour is a sweet.

### Conclusions:

I. Some odors are not Sweets.

II. No odor is a sweet

(a) If only I follows.

(b) If only II follows.

(c) If either I or II follows.

(d) If neither I nor II follows.

(e) If both I and II follow.

# COUNTING FIGURES - I





## ? What is counting figures?

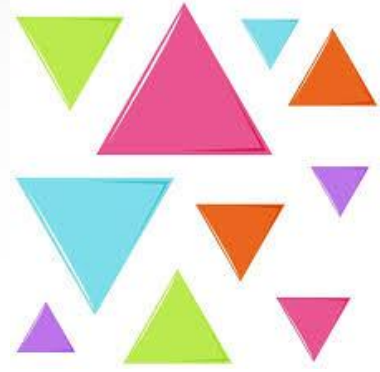
Identifying and counting specific geometric shapes (like triangles, squares, rectangles, or circles) within a complex image or figure

**OR**

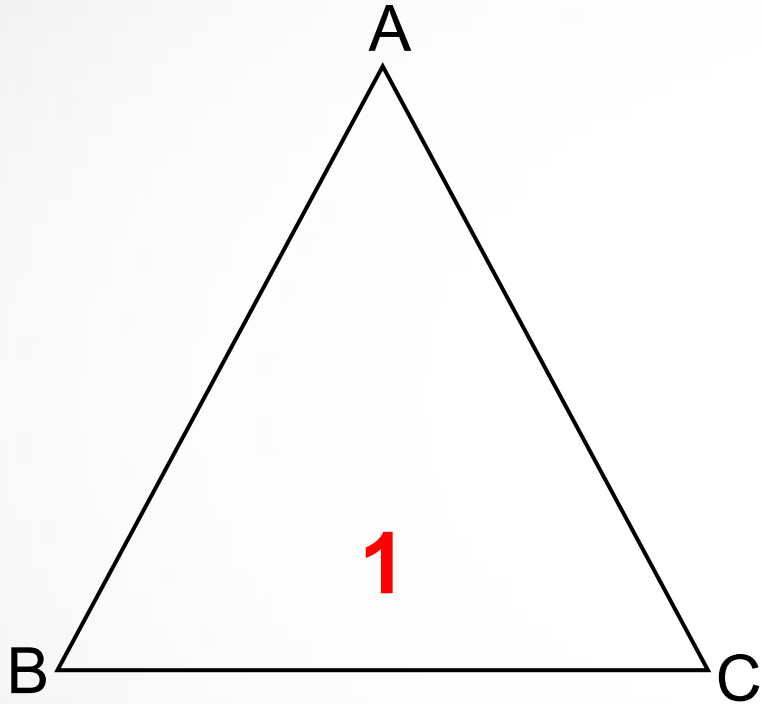
A shape or figure of a geometric object will be given. From the given shape candidates have to identify a given known shape and count the number of times it is present in the given shape



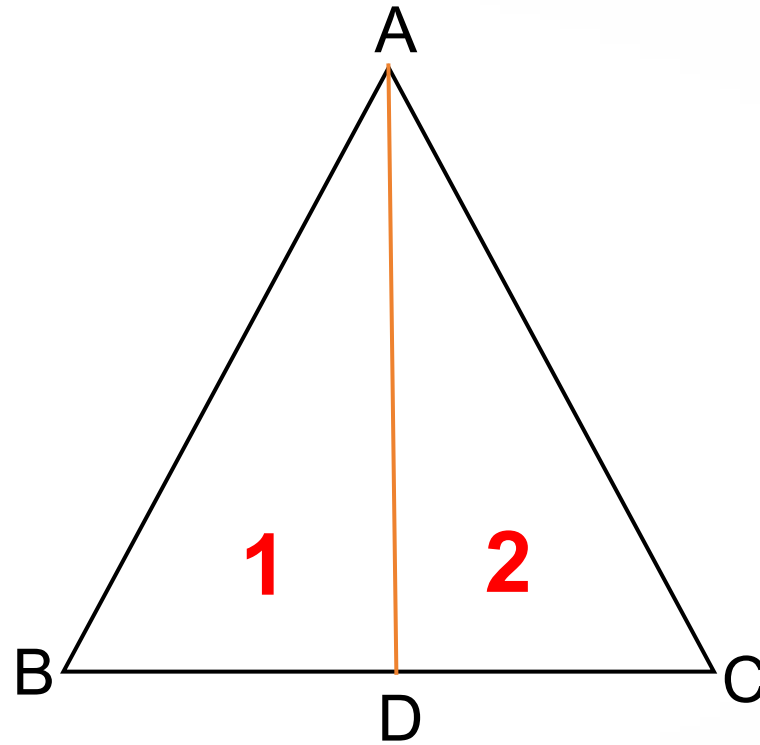
# Counting of Triangles



# Some tricks to find number of triangles



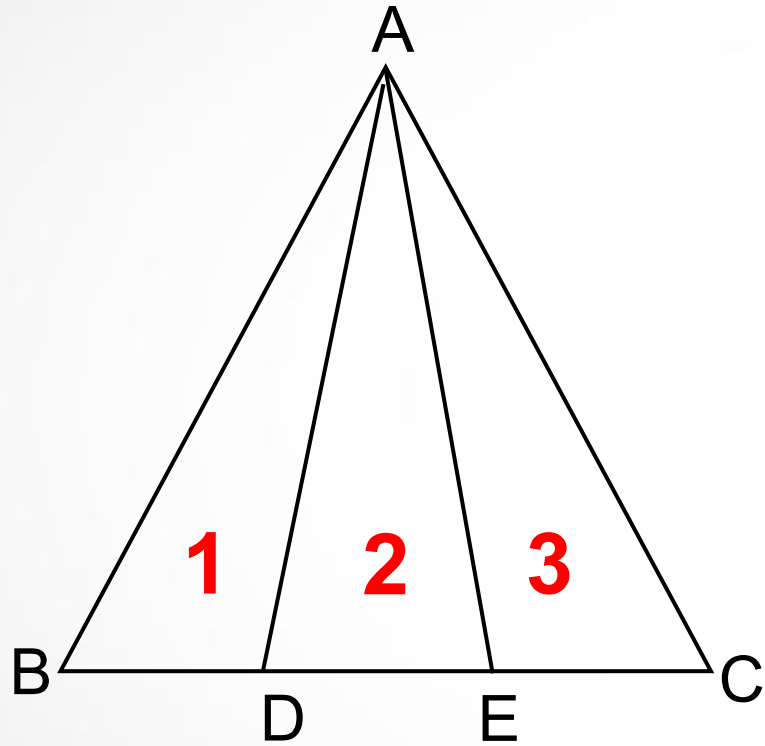
No.of Triangles = 1



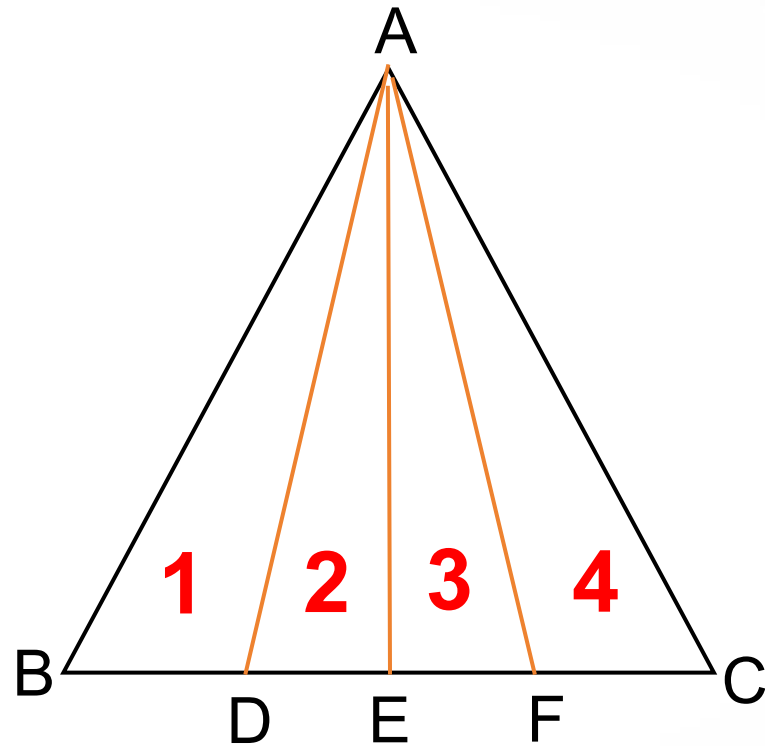
No.of Triangles = 3



# Some tricks to find number of triangles



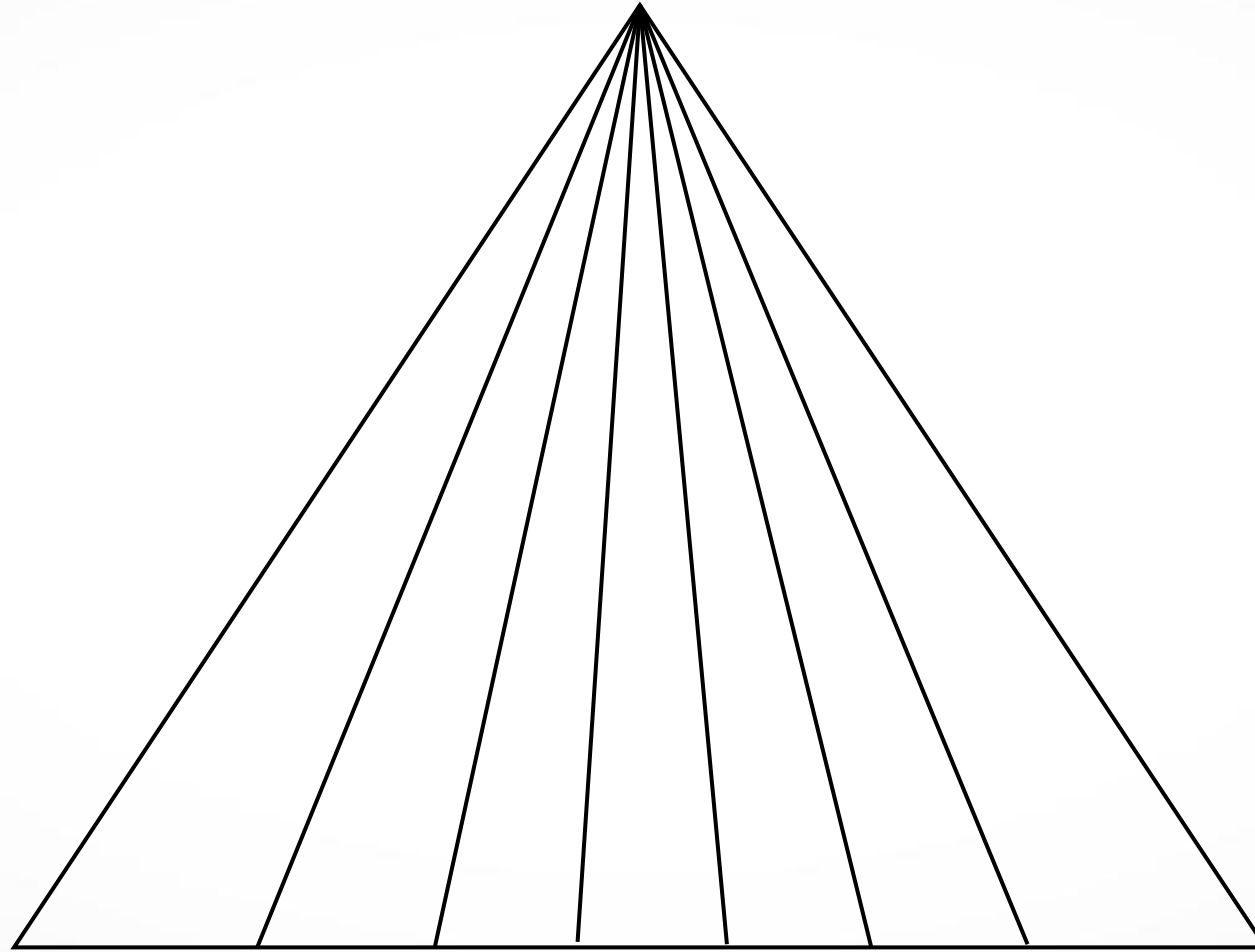
No.of Triangles = 6



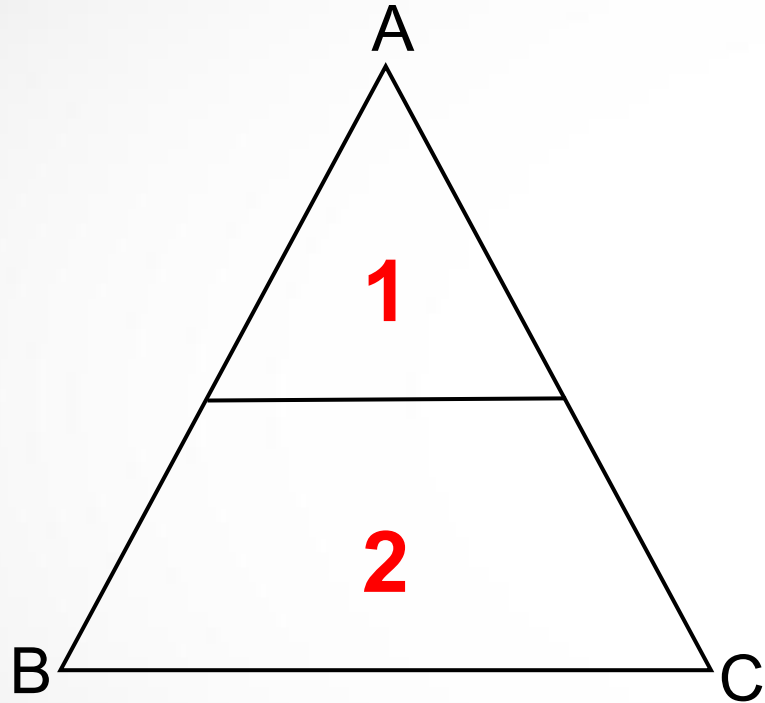
No.of Triangles = 10



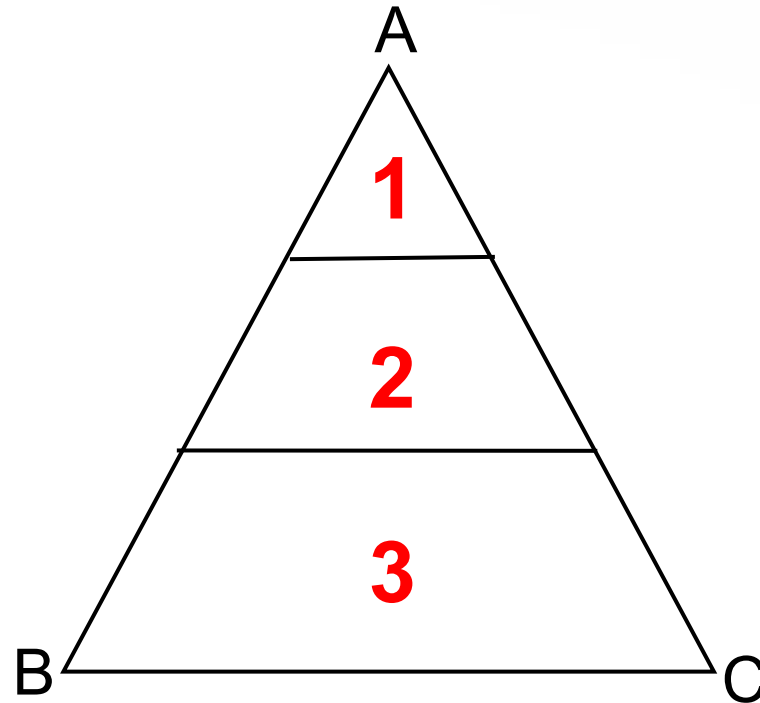
Now find the number of triangles....



# Some tricks to find number of triangles



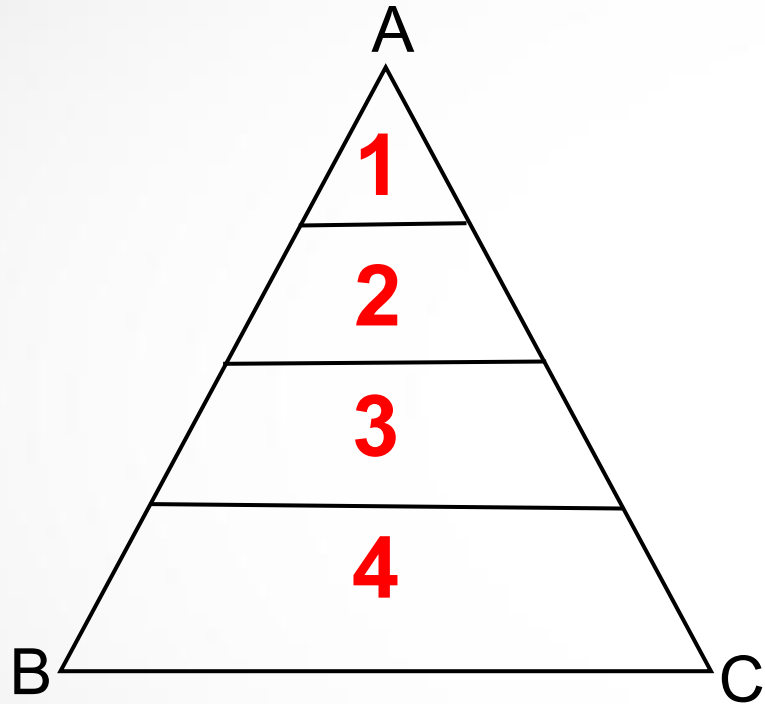
No.of Triangles = 2



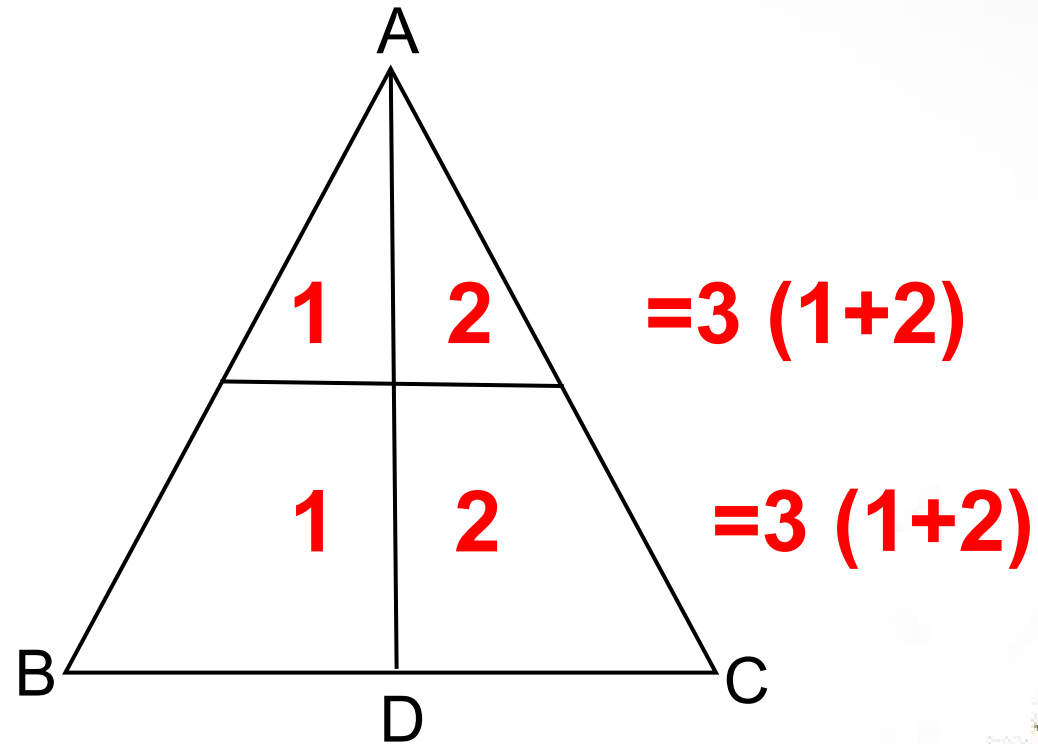
No.of Triangles = 3



# Some tricks to find number of triangles



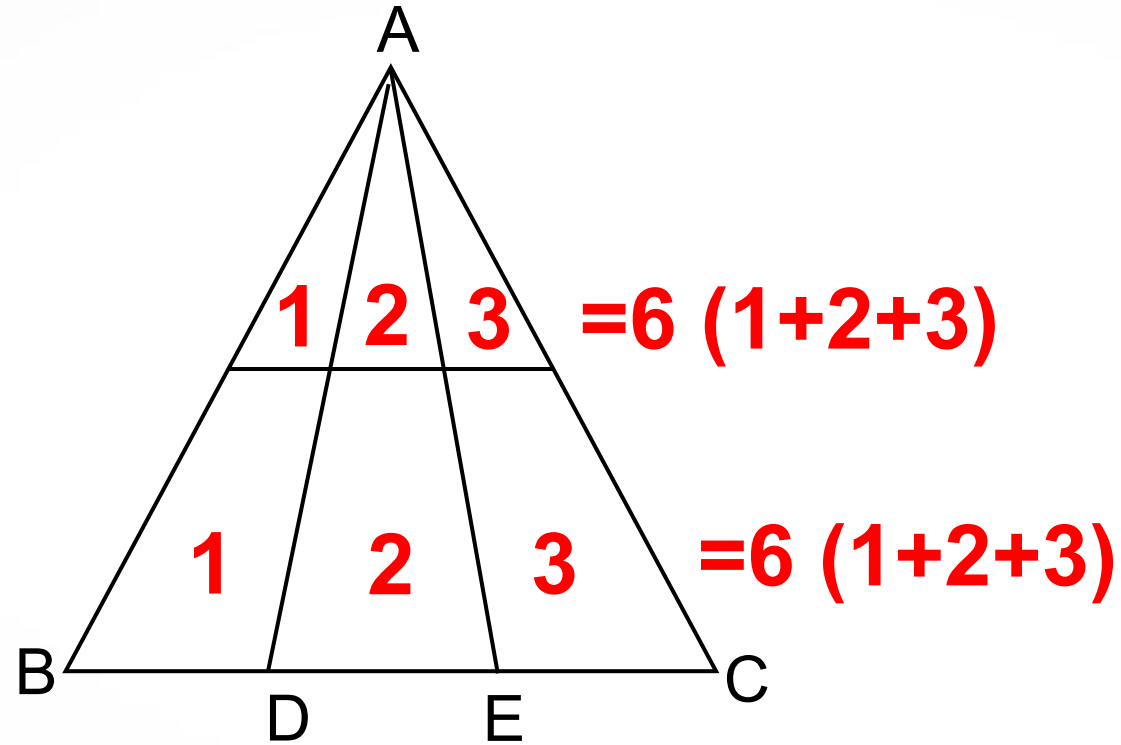
No. of Triangles = 4



No. of Triangles = 3+3 = 6



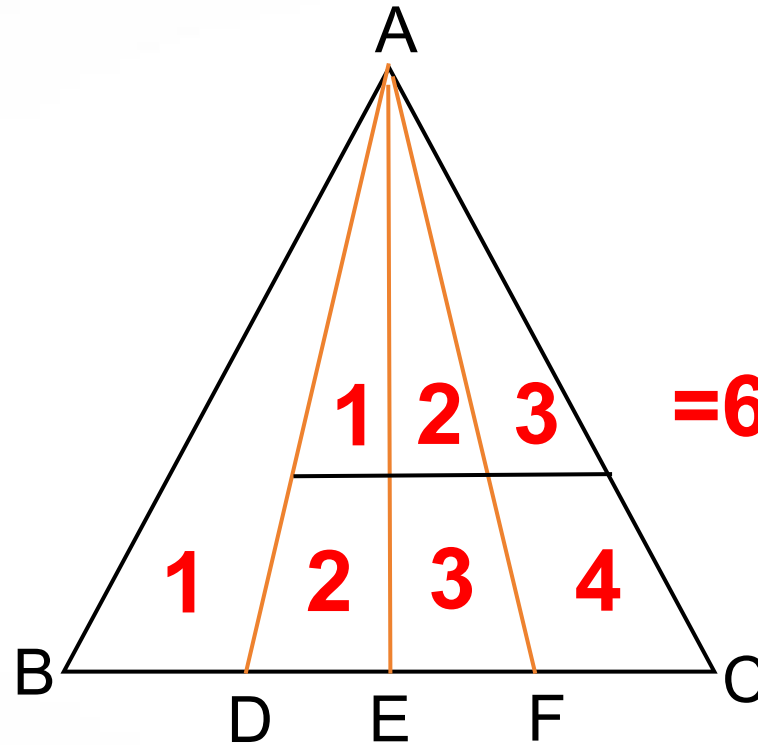
# Some tricks to find number of triangles



No.of Triangles = 6+6=12



# Some tricks to find number of triangles



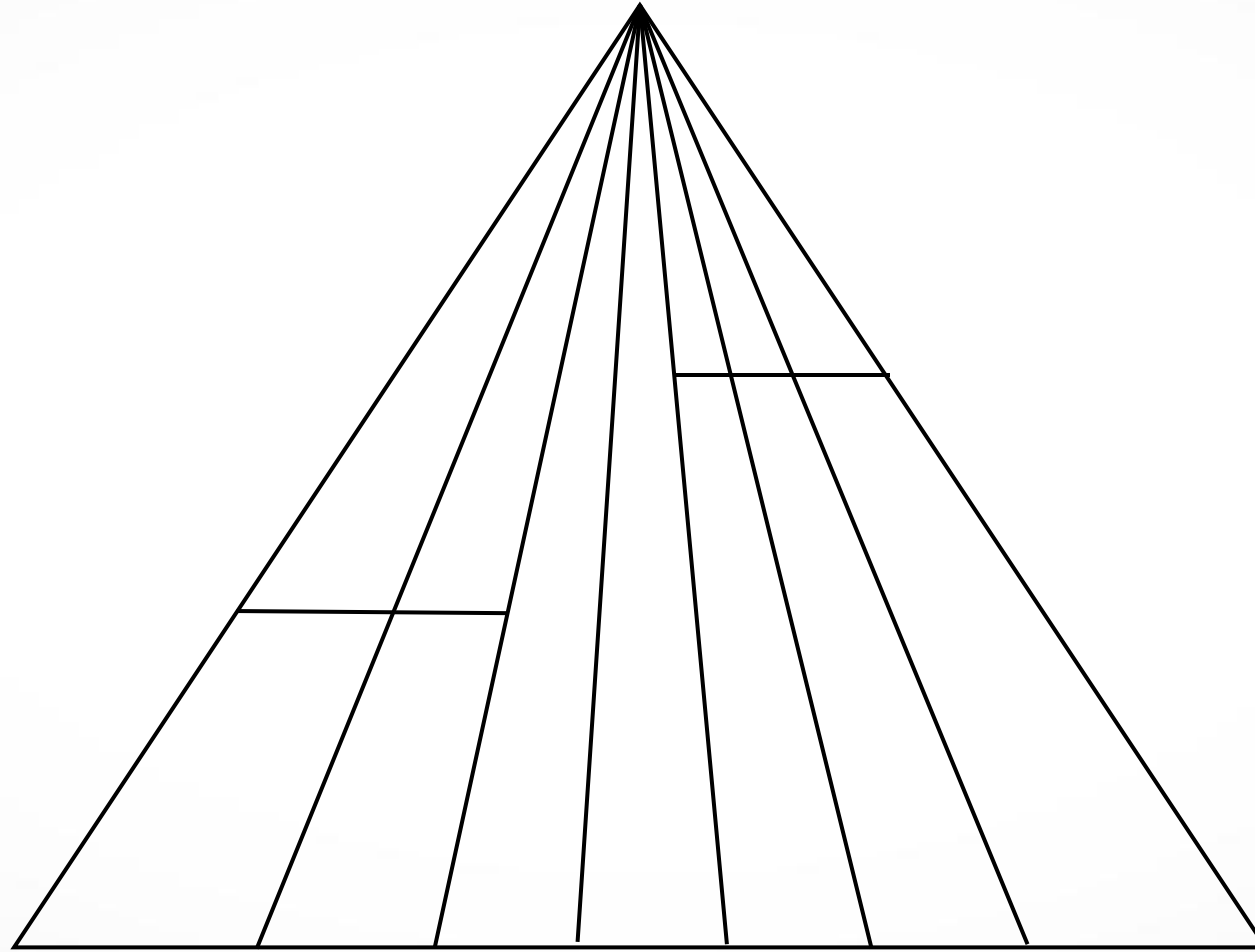
$$=6 (1+2+3)$$

$$=10 (1+2+3+4)$$

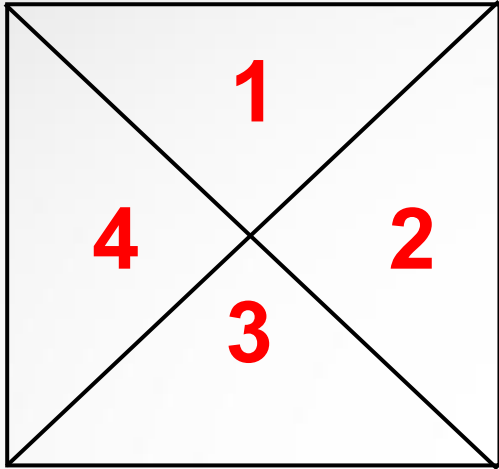
No.of Triangles =  
 $6+10=16$



Now find the number of triangles....

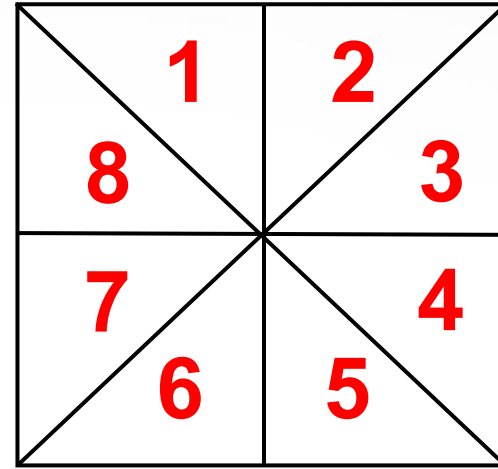


# Some tricks to find number of triangles



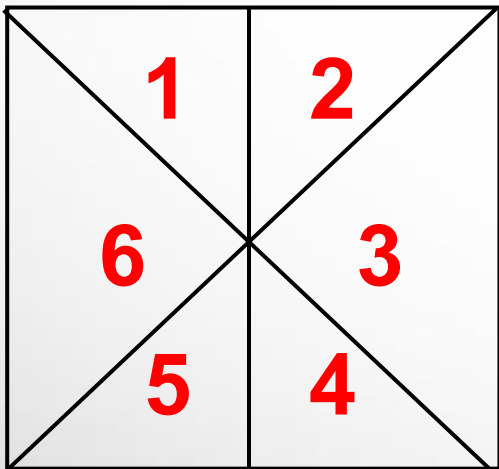
No. of Triangles

$$4 \times 2 = 8$$



No. of Triangles

$$8 \times 2 = 16$$

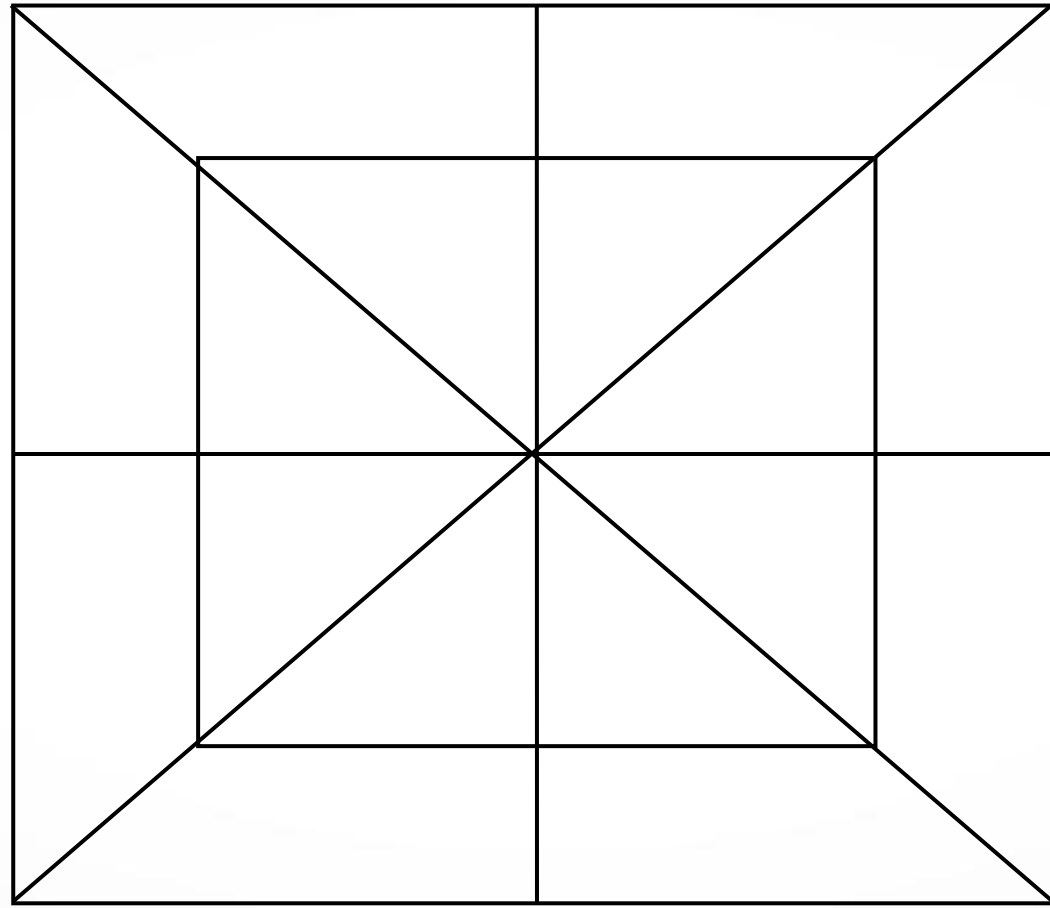


No. of Triangles

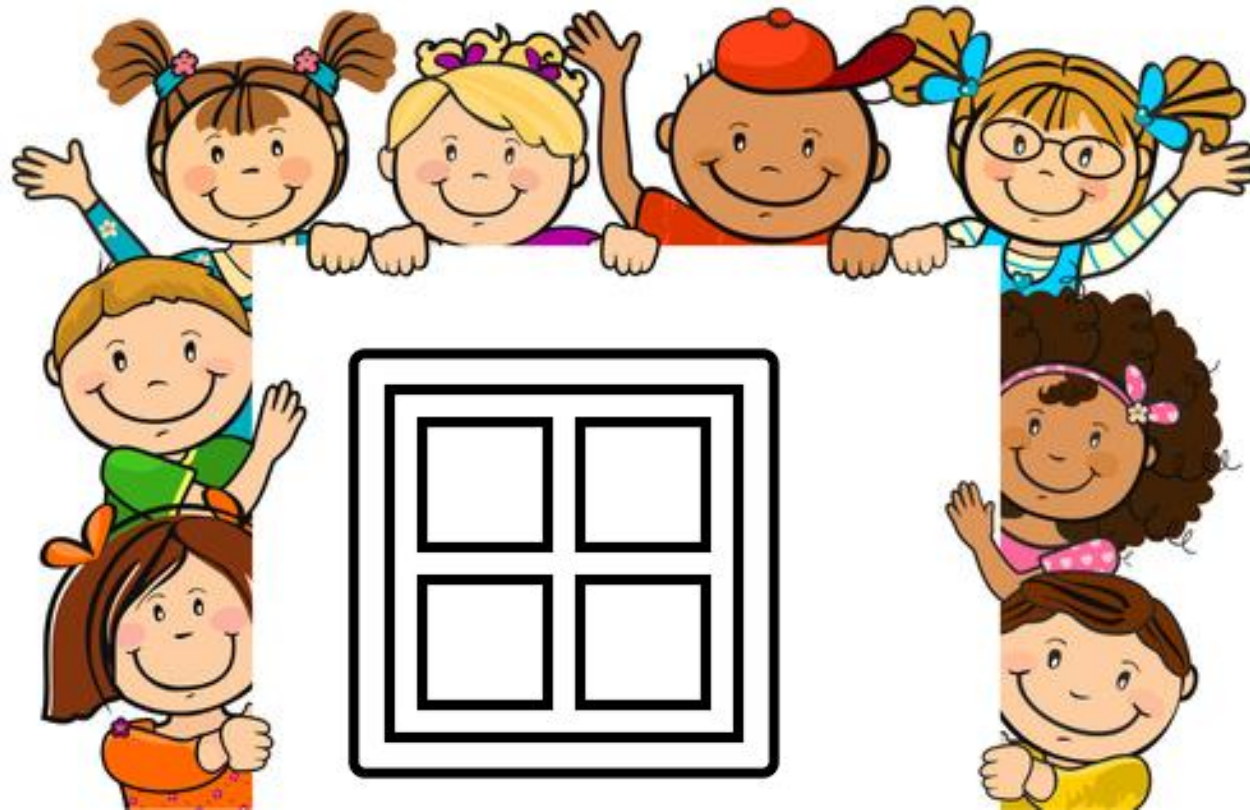
$$6 \times 2 = 12$$



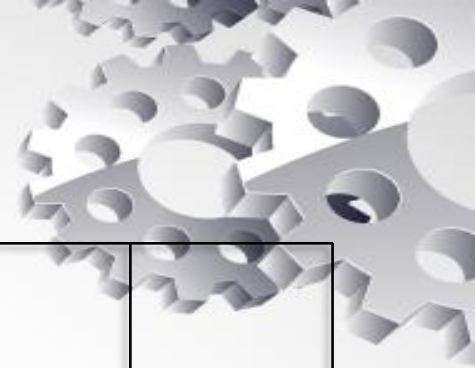
Now find the number of triangles....



# Counting of Squares



# 1. When row and column are equal



2	
1	2

No. of Rows and Columns are 2  
No. of squares =  $1^2 + 2^2 = 5$

3		
2		
1	2	3

No. of Rows and columns are 3  
No. of squares =  $1^2 + 2^2 + 3^2 = 14$

4			
3			
2			
1	2	3	4

No. of Rows and columns are 4  
No. of squares =  $1^2 + 2^2 + 3^2 + 4^2 = 30$

## 2. When row and column are not equal

2		
1	2	3

No. of Rows = 2

No. of columns = 3

No. of squares =  $(3 \times 2) + (2 \times 1) = 8$



## 2. When row and column are not equal



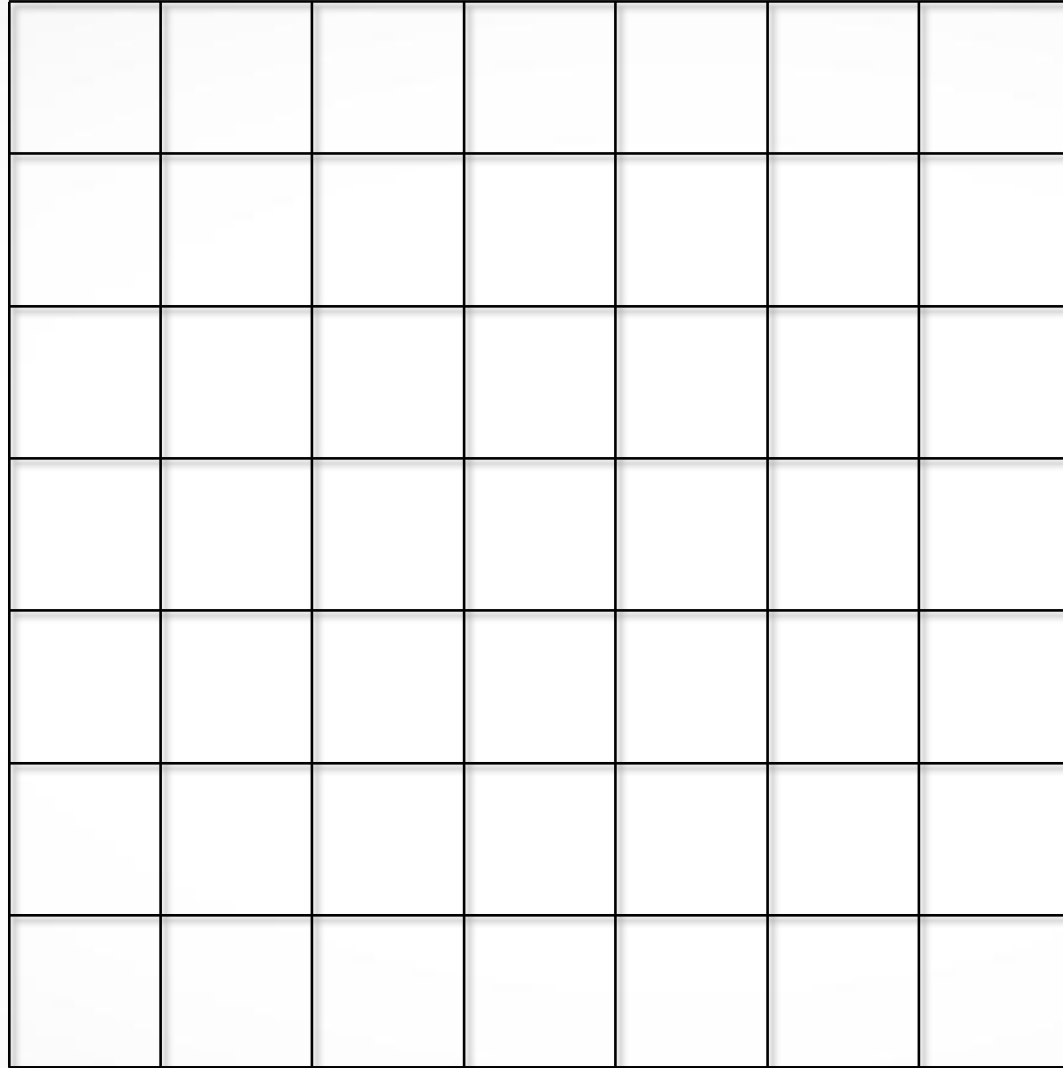
3			
2			
1	2	3	4

No. of Rows = 3

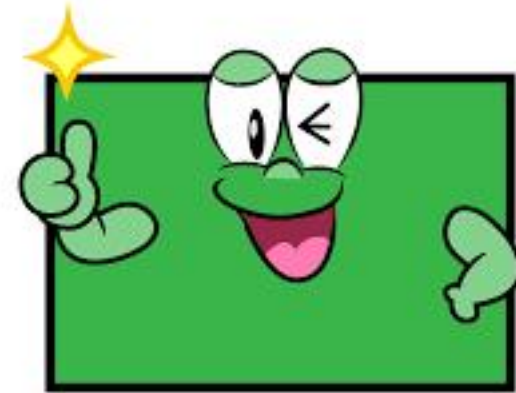
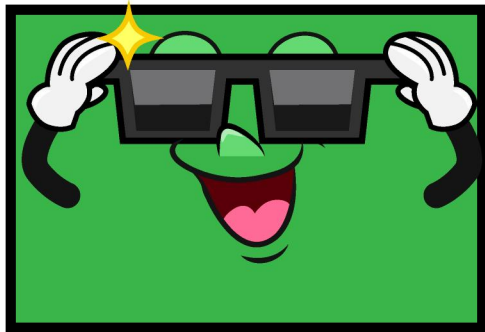
No. of columns = 4

No. of squares =  $(4 \times 3) + (3 \times 2) + (2 \times 1) = 24$

Now find the number of squares



# Counting of Rectangles



$$(1+2=3)$$



2	
1	2

$$(1+2=3)$$

No. of rectangles =  $3 \times 3 = 9$



$$(1+2+3=6)$$

3		
2		
1	2	3


No. of rectangles =  $6 \times 6 = 36$

$$(1+2+3=6)$$





$$(1+2+3=6)$$

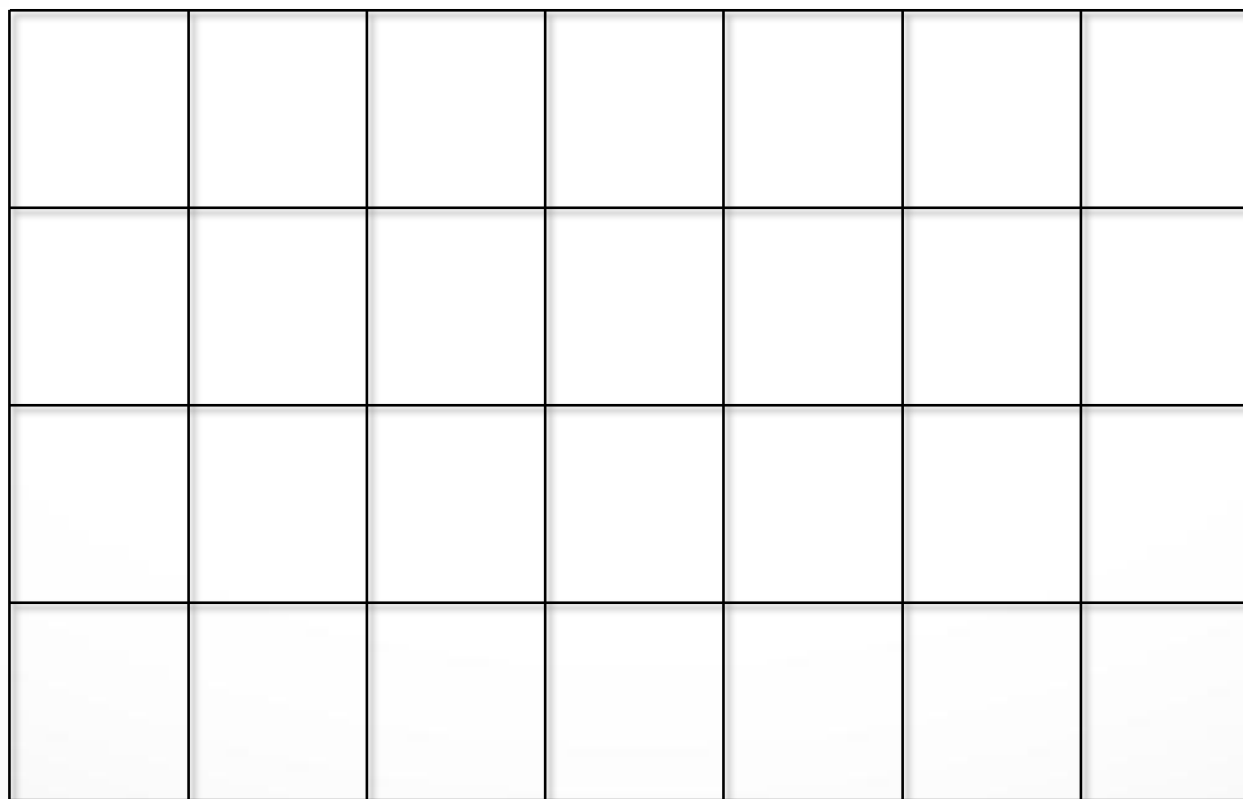


3			
2			
1	2	3	4

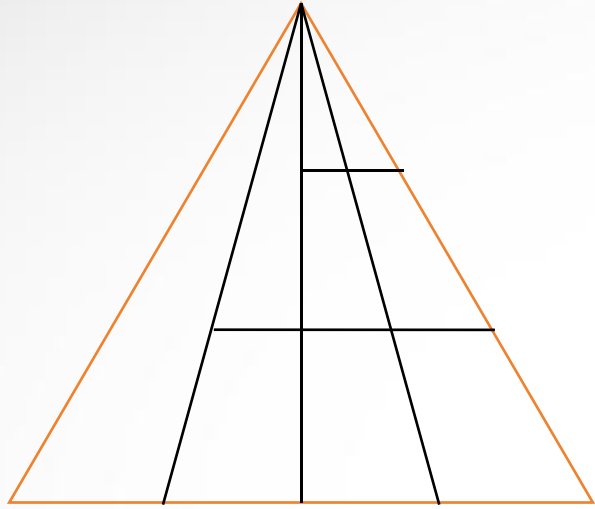
$$(1+2+3+4=10)$$

$$\text{No. of rectangles} = 6 \times 10 = 60$$

Now find the number of rectangles



1. How many triangles are there in the following figure?



(a) 20

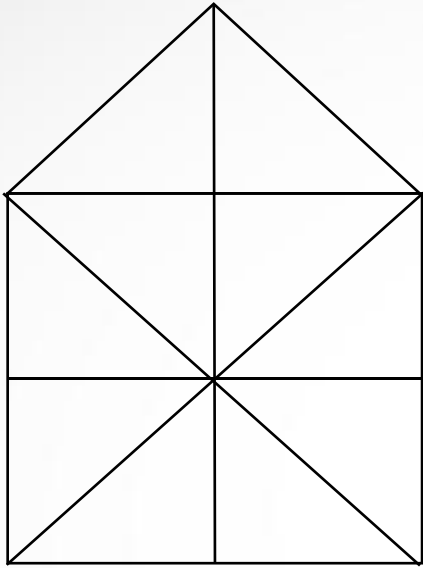
(b) 19

(c) 21

(d) 18



2. How many triangles are there in the following figure?



(a) 20

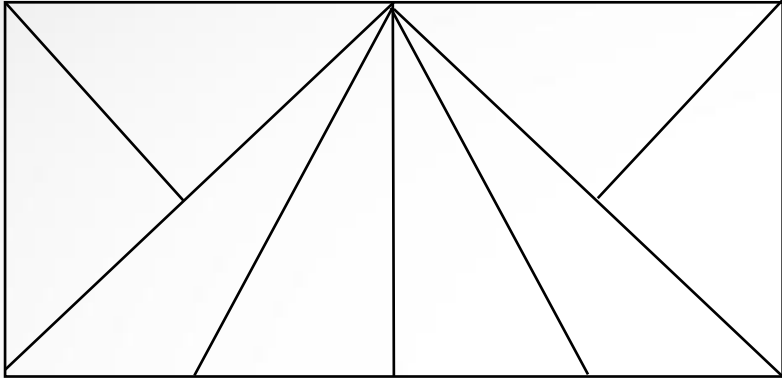
(b) 19

(c) 21

(d) 18



3. How many triangles are there in the following figure?

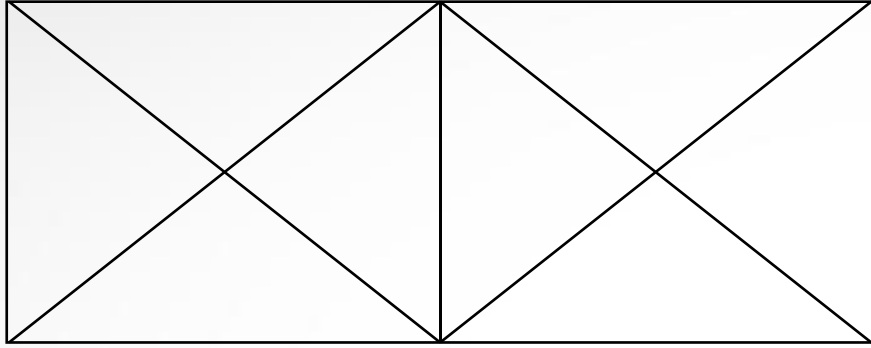


(a) 14            (b) 15

(c) 16            (d) 17



5. How many triangles are there in the following figure?



(a) 16

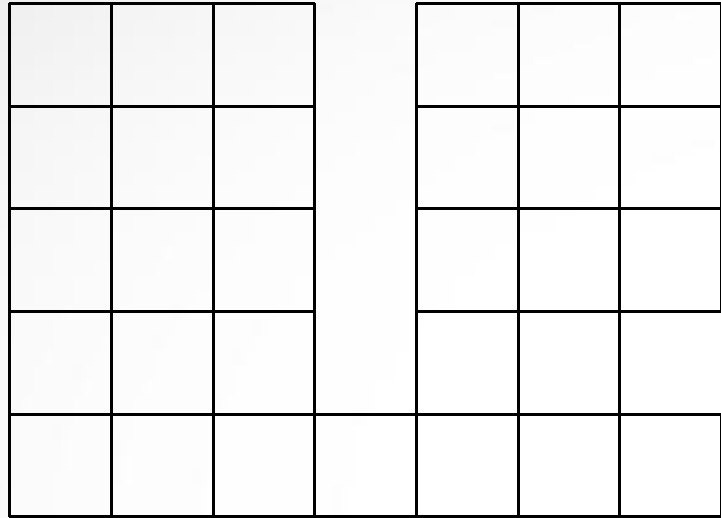
(b) 20

(c) 14

(d) 18



27. How many squares are there in the following figure?



(a) 53

(b) 39

(c) 48

(d) 60



THANK  
YOU!

All the best,