

Analytical Figures:-

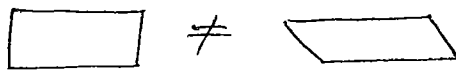
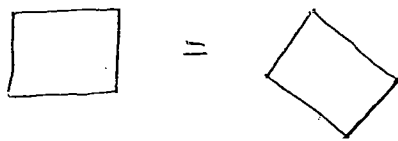
Triangle = 3 sides + 3 angles

Right angle /

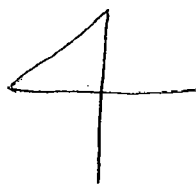
Equilateral triangle

Isosceles triangle

Scalene triangle.



Straight line:-



Horizontal st. line = 1

vertical st. line = 1

Inclined st. line = 1

3 st. lines

1. How many straight lines and how many triangles are there in the following figure.

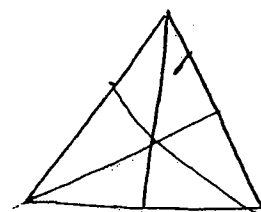
A. 16 triangles, 6 st-lines

$$1 \text{ Fig. triangle} = 3 \times 2 = 6$$

$$2 \text{ Fig. triangle} = 1 \times 2 = 2 + C_1 = 3$$

$$3 \text{ Fig. triangle} = 1 \times 2 = 2 + C_4 = 6$$

$$6 \text{ Fig. triangle} = \frac{1}{16}$$



I-part II-part

C - combined

half part from I-part
and remaining part from
II-part.

2. How many straight lines and how many triangles are there in the following figure.

A. 7 straight lines, 23 triangles

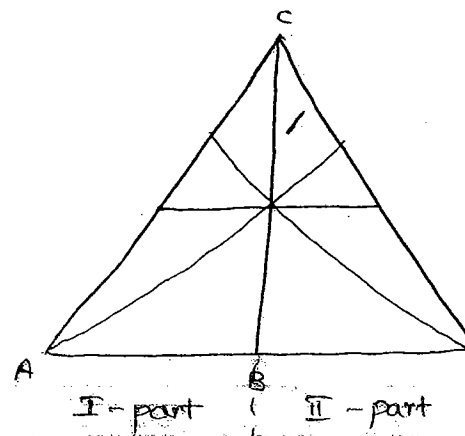
$$1 \text{ F. triangle} = 4 \times 2 = 8$$

$$2 \text{ F. triangle} = 2 \times 2 = 4 + C_1 = 5$$

$$3 \text{ F. triangle} = 1 \times 2 = 2 + C_0 = 2$$

$$4 \text{ F. triangle} = 1 \times 2 = 2 + C_5 = 7$$

$$8 \text{ F. triangle} = 1 = 1$$



3. How many st. lines and how many triangles are there in the following figure. []

A) 50 B) 51 C) 52 D) 53

A. No. of straight lines = 11

No. of triangles =

$$1F \text{ triangle} = 12 = 12$$

$$4F \text{ triangles} = 3+2+4 = 9$$

$$2F \text{ triangles} = 4+4+2+2 = 12$$

$$6F \text{ triangles} = 1+1+2 = 4$$

$$8F \text{ triangles} = 2+1+1+1+2 = 7$$

$$16F \text{ triangle} = 1$$

4. How many st. lines and how many triangles are there in the following figure.

A. straight lines = 8

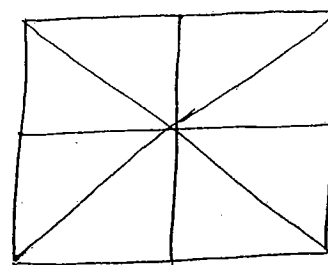
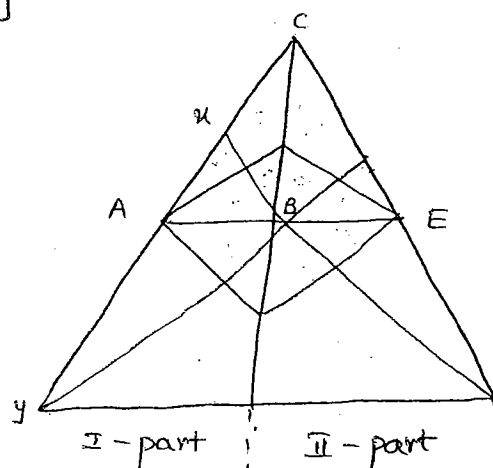
triangles = 16

$$1F \text{ triangle} = 4 \times 2 = 8$$

$$2F \text{ triangle} = 0 + C_4 = 4$$

$$4F \text{ triangle} = 0 + C_4 = 4$$

16



I-part II-part

5. How many straight lines and how many triangles are there in the following figure.

A. straight lines = 12

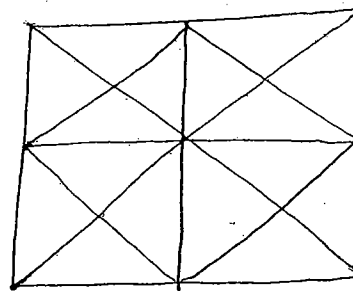
triangles = 44

$$1F \text{ triangle} = 16$$

$$2F \text{ triangle} = 16$$

$$4F \text{ triangle} = 4+4 = 8$$

$$8F \text{ triangle} = \frac{4}{44}$$



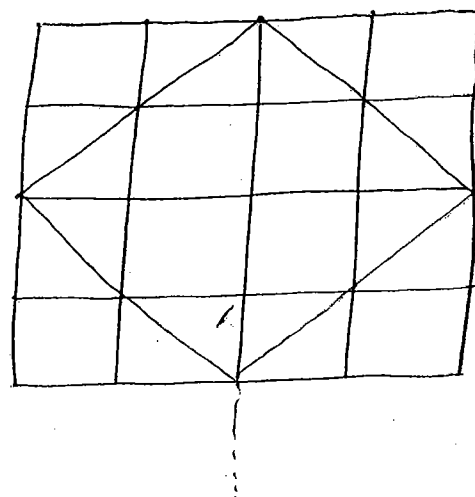
I-part II-part

6. How many st. lines and how many triangles are there in the following figure. []

a) 94 b) 96 c) 98 d) 99

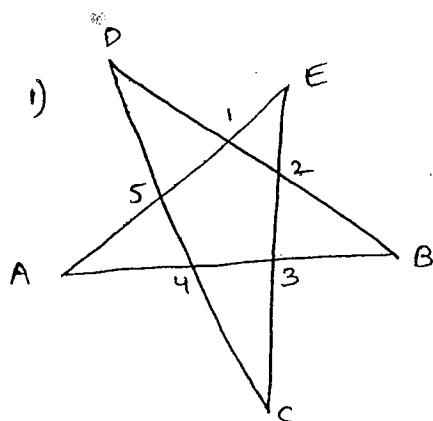
A. No. of st. lines = 14

No. of triangles =



II - model :-

7. How many straight lines and how many triangles are there in the following fig.

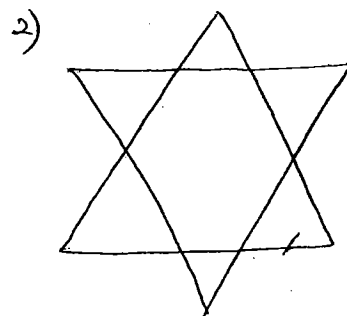


No. of st. lines = 5

No. of triangles = 10

$$AB_1 + CD_2 + AE_3 + BD_4 + CE_5 = 5$$

$$\begin{array}{r} 1 \text{ F triangle} = 5 \\ \hline 10 \end{array}$$



No. of st. lines = 6.

No. of triangles = 8

III - model :-

8. How many straight lines and how many parallelogram are there in the following figure.

No. of straight lines = 7

No. of parallelogram = 18

1 F. parallelogram = 6

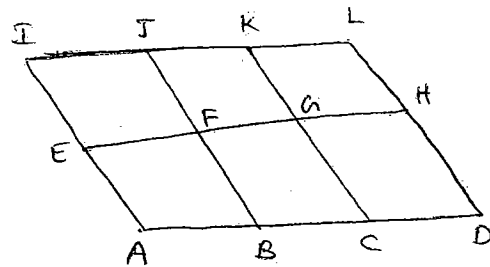
2 F. parallelogram = 7

4 F. parallelogram = 2

3 F. parallelogram = 2

6 F. parallelogram = 1

18



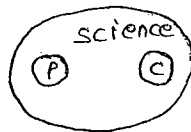
Logical venn diagrams :-

1. Statements to diagrams :-

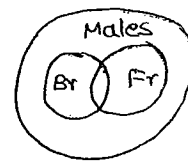
In each of the following questions three items are given and that follows some possible diagram then choose correct alternative with respect to the given above.

(D) (L)

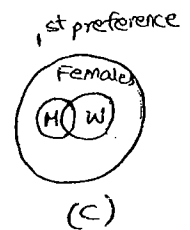
(E) /
(a)



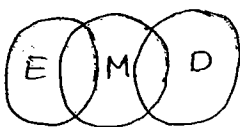
(b)



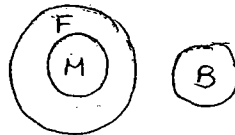
(c)



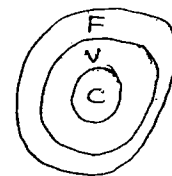
(c)



(d)

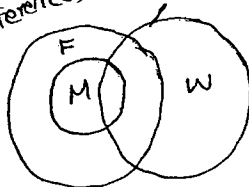


(e)

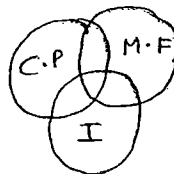


(f)

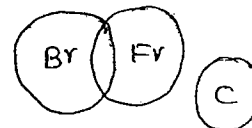
(2nd preference)



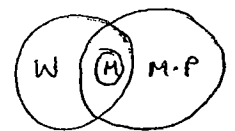
(g)



(h)



(i)



(j)

a) Doctors, Lawyers and Engineers

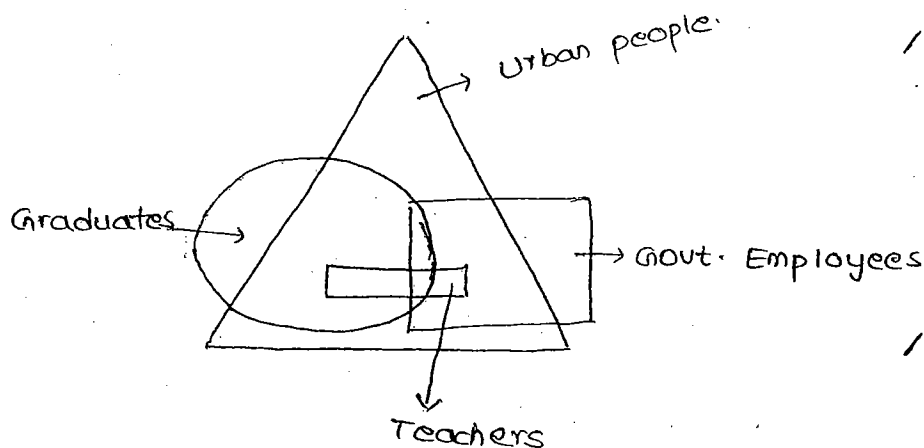
c) Brothers, males and fathers

b) Science, physics and chemistry

- h) cricket players, match fixers, Indians.
- f) carrots, vegetables and food
- c) Mothers, widows and Females, (g) $\rightarrow$ 2nd preference (widow and widower b are same & go to this of
- h) cricket players, tennis fans, Indians
- j) Mothers, married people and women
- d) Males, doctors, Engineers
- e) Mothers, females, Books
- g) Fathers, males and Engineers
- i) Brothers, Fathers and cars

2. Diagram to statement:-

Study the following diagram carefully and answer the question that follows.



1. At which of the following statements are definitely true. [d]

- A) All graduates are urban people
- B) All government employees are urban people
- c) All urban peoples are teachers
- d) All teachers are urban people.

2. which of the following statements are not correct [e]

- A) some graduates are from urban residency
- B) some govt. employees are not from urban residency
- c) some urban peoples are neither graduates nor govt. employees
- d) some teachers are govt. employees.
- e) All the above

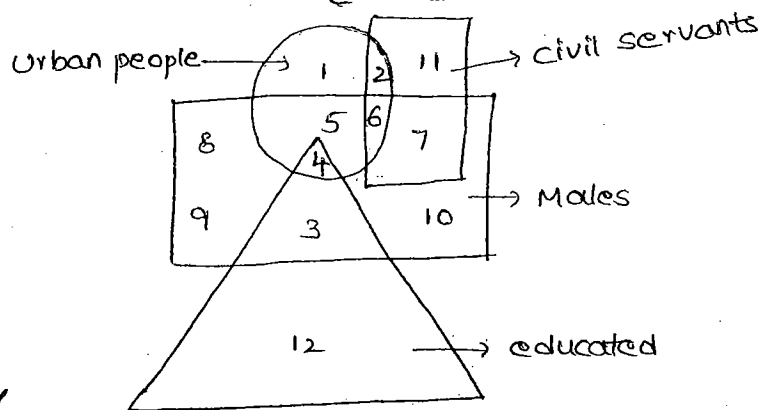
3. Which of the following statements are false [0]

- A) Some graduates are not from urban residency
- B) Some govt. employees are from rural residency
- C) Some teachers are graduates and govt. employees
- D) Some teachers are from urban residency

4. Which of the following statements are not false []

- A) All govt. employees are graduates
- B) All graduates are from rural residency
- C) Some urban graduates are govt. employees and teachers
- D) All the above.

5. Study the following diagram carefully and answer the question/ that follows: [3]



1. Urban uneducated male but not civil servant are represented by 5
2. Urban educated male but not civil servant are represented by 4
3. Urban uneducated male civil servant are represented by 6
4. Rural educated male but not civil servant are represented by 3
5. Urban uneducated women civil servant is represented by 2
6. Rural uneducated male civil servant are represented by 7
7. Urban uneducated women but not civil servant are represented by 1
8. Rural educated women but not civil servant are represented by 12