



# MATHS

**BOOKS - MCGROW HILL EDUCATION**

**MATHS (HINGLISH)**

**ANALYTICAL REASONING**

## Exercise

1. (i) There is a group of five persons-A, B, C, D and E.

(ii) One of them is a horticulturist, one is a physicist, one is a journalist, one is an industrialist and one is an advocate.

(iii) Three of them-A, C and advocate prefer tea to coffee and two of them--B and the journalist prefer coffee to tea.

(iv) The industrialist and D and A are friends to one another but two of these prefer coffee to tea.

(v) The horticulturist is C's brother.

Who is a horticulturist?

A. A

B. B

C. C

D. D

**Answer: A**



**View Text Solution**

2. (i) There is a group of five persons-A, B, C, D and E.

(ii) One of them is a horticulturist, one is a physicist, one is a journalist, one is an

industrialist and one is an advocate.

(iii) Three of them-A, C and advocate prefer tea to coffee and two of them--B and the journalist prefer coffee to tea.

(iv) The industrialist and D and A are friends to one another but two of these prefer coffee to tea.

(v) The horticulturist is C's brother.

Who is an industrialist?

A. E

B. C

C. B

D. D

**Answer: C**



**View Text Solution**

3. (i) There is a group of five persons-A, B, C, D and E.

(ii) One of them is a horticulturist, one is a physicist, one is a journalist, one is an industrialist and one is an advocate.

(iii) Three of them-A, C and advocate prefer tea

to coffee and two of them--B and the journalist prefer coffee to tea.

(iv) The industrialist and D and A are friends to one another but two of these prefer coffee to tea.

(v) The horticulturist is C's brother.

Which of the following groups includes a person who likes tea but is not an advocate?

A. ACE

B. DE

C. BCE

D. None of these

**Answer: D**



**View Text Solution**

4. (i) There is a group of five persons-A, B, C, D and E.

(ii) One of them is a horticulturist, one is a physicist, one is a journalist, one is an industrialist and one is an advocate.

(iii) Three of them-A, C and advocate prefer tea

to coffee and two of them--B and the journalist prefer coffee to tea.

(iv) The industrialist and D and A are friends to one another but two of these prefer coffee to tea.

(v) The horticulturist is C's brother.

Who is a physicist?

A. A

B. E

C. D

D. C



**Answer: D**



**View Text Solution**

5. (i) There is a group of five persons-A, B, C, D and E.

(ii) One of them is a horticulturist, one is a physicist, one is a journalist, one is an industrialist and one is an advocate.

(iii) Three of them-A, C and advocate prefer tea to coffee and two of them--B and the journalist prefer coffee to tea.

(iv) The industrialist and D and A are friends to one another but two of these prefer coffee to tea.

(v) The horticulturist is C's brother.

Which of the above statements is superfluous?

A. (iii)

B. (iv)

C. (ii)

D. None

**Answer: D**



6. (i) P, Q, R, S, T and U are travelling in a bus.
- (ii) There are two reporters, two technicians, one photographer and one writer in the group.
- (iii) The photographer P is married to S who is a reporter.
- (iv) The writer is married to Q who is of the same profession as that of U.
- (v) There are two married couples and nobody in the group has same profession.

(vi) U is brother of R.

Which of the following is a pair of technicians?

A. RS

B. SU

C. PT

D. QU

**Answer: D**



**View Text Solution**

7. (i) P, Q, R, S, T and U are travelling in a bus.

(ii) There are two reporters, two technicians, one photographer and one writer in the group.

(iii) The photographer P is married to S who is a reporter.

(iv) The writer is married to Q who is of the same profession as that of U.

(v) There are two married couples and nobody in the group has same profession.

(vi) U is brother of R.

Which of the following is a pair of reporters?

A. PQ

B. RT

C. ST

D. SU

**Answer: C**



**View Text Solution**

8. (i) P, Q, R, S, T and U are travelling in a bus.

(ii) There are two reporters, two technicians, one photographer and one writer in the

group.

(iii) The photographer P is married to S who is a reporter.

(iv) The writer is married to Q who is of the same profession as that of U.

(v) There are two married couples and nobody in the group has same profession.

(vi) U is brother of R.

How is R related to U?

A. Brother

B. sister

C. Uncle

D. cannot be determined

**Answer: D**



**View Text Solution**

9. (i) P, Q, R, S, T and U are travelling in a bus.

(ii) There are two reporters, two technicians, one photographer and one writer in the group.

(iii) The photographer P is married to S who is a reporter.



(iv) The writer is married to Q who is of the same profession as that of U.

(v) There are two married couples and nobody in the group has same profession.

(vi) U is brother of R.

Which of the following pair is a couple?

A. PQ

B. QR

C. QS

D. PT

**Answer: B**



[View Text Solution](#)

**10.** (i) P, Q, R, S, T and U are travelling in a bus.

(ii) There are two reporters, two technicians, one photographer and one writer in the group.

(iii) The photographer P is married to S who is a reporter.

(iv) The writer is married to Q who is of the same profession as that of U.

(v) There are two married couples and nobody in the group has same profession.

(vi) U is brother of R.

Which of the following is a pair of husbands?

A. PQ

B. PR

C. QS

D. Can't be determined

**Answer: D**



**View Text Solution**

**11.** (i) Six friends P, Q, R, S, T and U are members of the club and play a different game of Football, Cricket, Tennis, Basket ball, Badminton and Volley ball.

(ii) T who is taller than P and S plays Tennis.

(iii) The tallest among them plays Basket ball.

(iv) The shortest among them plays Volley ball.

(v) Q and S neither play Volley ball nor Basket ball.

(vi) R plays Volley ball.

(vii) T is between Q who plays Foot ball and P in order of height

Who among them is taller than R but shorter than P? (

A. Q

B. T

C. U

D. None of these

**Answer: D**



**View Text Solution**

12. (i) Six friends P, Q, R, S, T and U are members of the club and play a different game of Football, Cricket, Tennis, Basket ball, Badminton and Volley ball.

(ii) T who is taller than P and S plays Tennis.

(iii) The tallest among them plays Basket ball.

(iv) The shortest among them plays Volley ball.

(v) Q and S neither play Volley ball nor Basket ball.

(vi) R plays Volley ball.

(vii) T is between Q who plays Foot ball and P in order of height

Who will be at the third place if they are arranged in the descending order of their height?

A. Q

B. P

C. S

D. T

**Answer: D**



**View Text Solution**

**13.** (i) Six friends P, Q, R, S, T and U are members of the club and play a different game of Football, Cricket, Tennis, Basket ball, Badminton and Volley ball.

(ii) T who is taller than P and S plays Tennis.

(iii) The tallest among them plays Basket ball.

(iv) The shortest among them plays Volley ball.

(v) Q and S neither play Volley ball nor Basket ball.

(vi) R plays Volley ball.

(vii) T is between Q who plays Foot ball and P



in order of height

Which of the following statements is not true?

A. P is shorter than R

B. Q is taller than S

C. S is taller than R

D. T is taller than R

**Answer: A**



**View Text Solution**

**14.** (i) Six friends P, Q, R, S, T and U are members of the club and play a different game of Football, Cricket, Tennis, Basket ball, Badminton and Volley ball.

(ii) T who is taller than P and S plays Tennis.

(iii) The tallest among them plays Basket ball.

(iv) The shortest among them plays Volley ball.

(v) Q and S neither play Volley ball nor Basket ball.

(vi) R plays Volley ball.

(vii) T is between Q who plays Foot ball and P

in order of height

Who among them plays Basket ball?

A. Q

B. R

C. S

D. U

**Answer: D**



**View Text Solution**

**15.** (i) Six friends P, Q, R, S, T and U are members of the club and play a different game of Football, Cricket, Tennis, Basket ball, Badminton and Volley ball.

(ii) T who is taller than P and S plays Tennis.

(iii) The tallest among them plays Basket ball.

(iv) The shortest among them plays Volley ball.

(v) Q and S neither play Volley ball nor Basket ball.

(vi) R plays Volley ball.

(vii) T is between Q who plays Foot ball and P

in order of height

What does S play?

A. Cricket

B. Badminton

C. Foot ball

D. Either Cricket or Badminton

**Answer: D**



**View Text Solution**

**16.** Six friends went on a vacation to a hill station. They are to be accommodated in a row of nine cottages, each to a cottage. Mohan, Tanya and Roma do not want to live in a cottage at the end of a row. Babu and Mohan must not have anybody adjacent to their cottages. There is only an empty cottage between Mohan and Roma. Chander is adjacent to both Jayanthi and Roma Tanya is next to the cottage at the beginning.

Who has empty cottages in both sides?

A. Roma

B. Babu

C. Mohan

D. Tanya

**Answer: C**



**View Text Solution**

**17.** Six friends went on a vacation to a hill station. They are to be accommodated in a row of nine cottages, each to a cottage.

Mohan, Tanya and Roma do not want to live in a cottage at the end of a row. Babu and Mohan must not have anybody adjacent to their cottages. There is only an empty cottage between Mohan and Roma. Chander is adjacent to both Jayanthi and Roma Tanya is next to the cottage at the beginning.

Who is in the third cottage?

A. Jayanthi

B. Chander

C. Nobody



D. Roma

**Answer: A**



**View Text Solution**

**18.** Six friends went on a vacation to a hill station. They are to be accommodated in a row of nine cottages, each to a cottage. Mohan, Tanya and Roma do not want to live in a cottage at the end of a row. Babu and Mohan must not have anybody adjacent to

their cottages. There is only an empty cottage between Mohan and Roma. Chander is adjacent to both Jayanthi and Roma Tanya is next to the cottage at the beginning.

Which cottages are empty?

A. 1,6,8

B. 1,5,8

C. 4,5,6

D. 5, 6,8

**Answer: A**



**19.** Six friends went on a vacation to a hill station. They are to be accommodated in a row of nine cottages, each to a cottage. Mohan, Tanya and Roma do not want to live in a cottage at the end of a row. Babu and Mohan must not have anybody adjacent to their cottages. There is only an empty cottage between Mohan and Roma. Chander is adjacent to both Jayanthi and Roma Tanya is next to the cottage at the beginning.

What is the maximum number of consecutive cottages that are occupied?

A. 2

B. 3

C. 1

D. 4

**Answer: D**



**View Text Solution**

20. Six friends are sitting around a circular table at equal distance from each other. Sita is sitting two places right of Gita who is exactly opposite to Nita. Nita is on immediate left of Lata, who is exactly opposite to Rita. Mita is also sitting at the table.

Who is the only person sitting between Gita and Sita?

A. Rita

B. Mita

C. Lata

D. Nita

**Answer: A**



**View Text Solution**

**21.** Six friends are sitting around a circular table at equal distance from each other. Sita is sitting two places right of Gita who is exactly opposite to Nita. Nita is on immediate left of Lata, who is exactly opposite to Rita. Mita is

also sitting at the table.

Sita is not sitting at equal distance from:

- A. Rita and Nita
- B. Lata and Gita
- C. Mita and Lata
- D. All of the above

**Answer: C**



**View Text Solution**

22. Six friends are sitting around a circular table at equal distance from each other. Sita is sitting two places right of Gita who is exactly opposite to Nita. Nita is on immediate left of Lata, who is exactly opposite to Rita. Mita is also sitting at the table.

Gita is sitting to the

A. Left of Mita

B. Right of Rita

C. Left of Rita



## D. Right of Nita

**Answer: C**



**View Text Solution**

**23.** Six friends are sitting around a circular table at equal distance from each other. Sita is sitting two places right of Gita who is exactly opposite to Nita. Nita is on immediate left of Lata, who is exactly opposite to Rita. Mita is also sitting at the table.

The angle subtended by Mita and Nita at the centre of the table is:

A.  $60^\circ$

B.  $120^\circ$

C.  $90^\circ$

D.  $180^\circ$

**Answer: B**



**View Text Solution**

24. Six friends are sitting around a circular table at equal distance from each other. Sita is sitting two places right of Gita who is exactly opposite to Nita. Nita is on immediate left of Lata, who is exactly opposite to Rita. Mita is also sitting at the table.

Which of the following statements is not correct?

A. Mita and Sita are exactly opposite to each other

B. Rita and Mita are equal distance from

Gita

C. Angle subtended by Rita and Mita is

same as the angle subtended by Sita and

Lata at the centre of the table

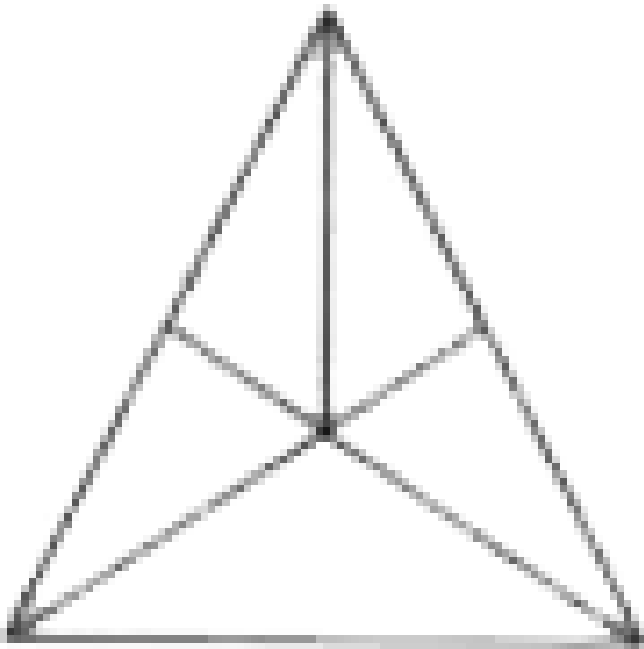
D. Mita is on the immediate left of Lata.

**Answer: D**



**View Text Solution**

25. Find the number of triangles in the following figure.



A. 9

B. 10

C. 11

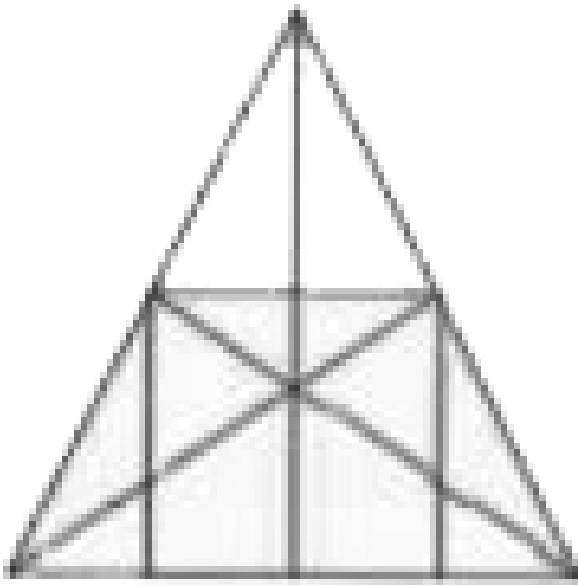
D. 12

**Answer: D**



**View Text Solution**

**26.** How many straight lines are contained in the diagram given below ?



A. 9

B. 10

C. 11

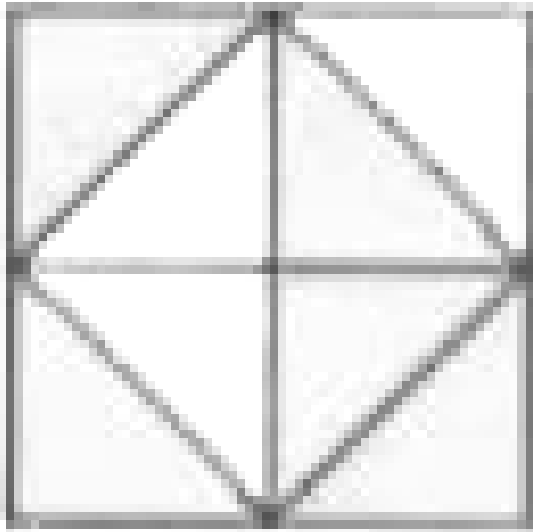
D. 12

**Answer: A**



[View Text Solution](#)

27. How many triangles are contained in the figure given below ?



A. 8



B. 10

C. 12

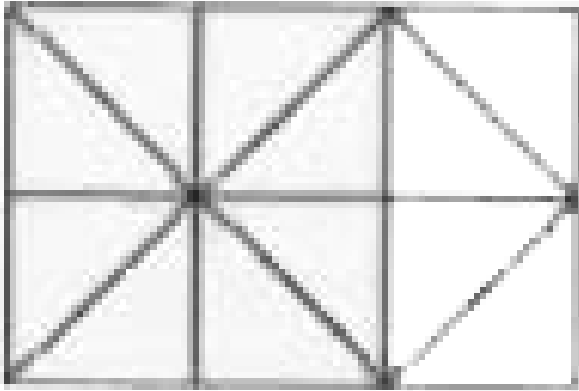
D. 14

**Answer: C**



**View Text Solution**

**28.** How many squares are contained in the following figure ?



A. 6

B. 7

C. 8

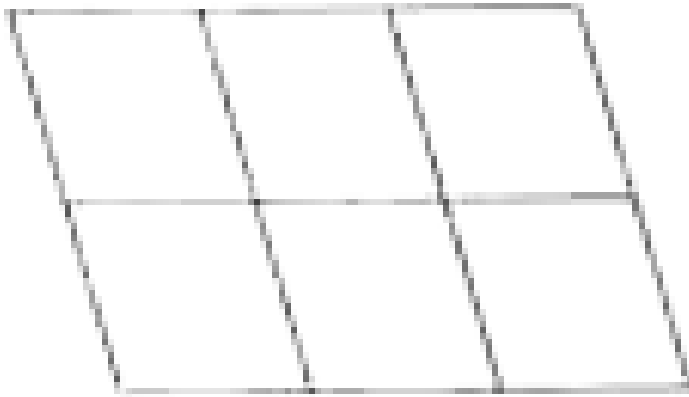
D. 9

**Answer: D**



**View Text Solution**

**29.** How many parallelograms are there in the figure given below ?



A. 14

B. 15

C. 16

D. 18

**Answer: D**

 [View Text Solution](#)

**30.** Find the number of rectangles in the following figure.



A. 6

B. 7

C. 8

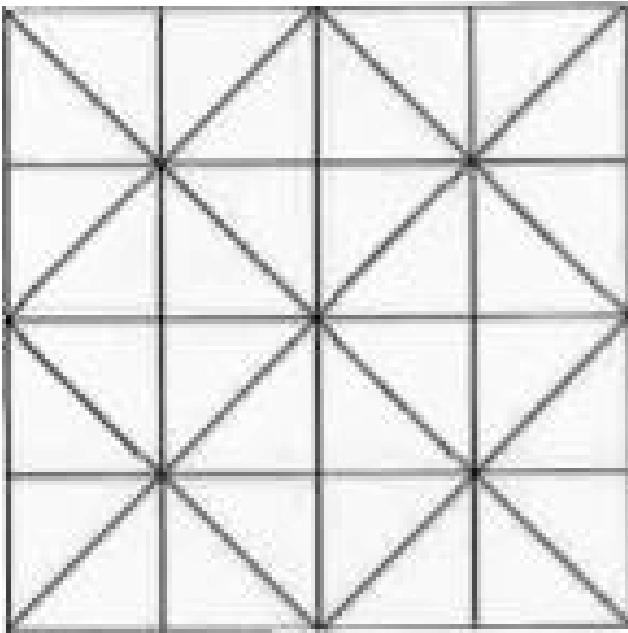
D. 18

**Answer: D**



**View Text Solution**

**31.** Find the number of straight lines in the following figure.



A. 11

B. 14

C. 16

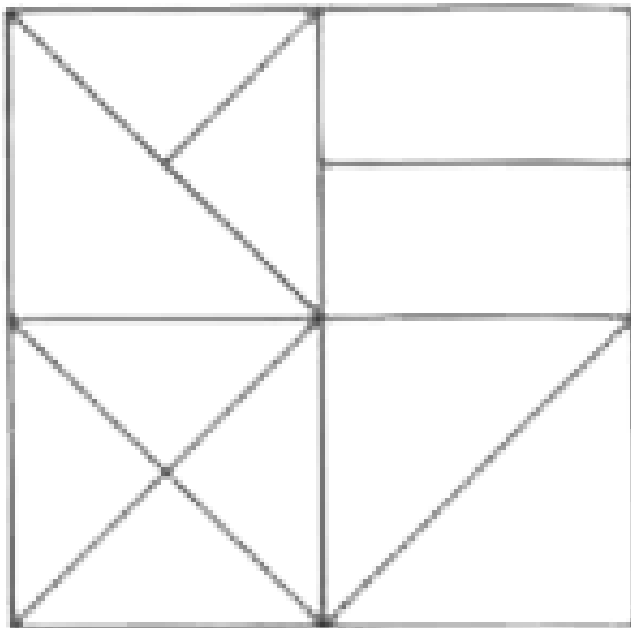
D. 15

**Answer: C**



**View Text Solution**

**32.** How many triangles are contained in the following following figure ?



A. 11

B. 12

C. 16

D. 16

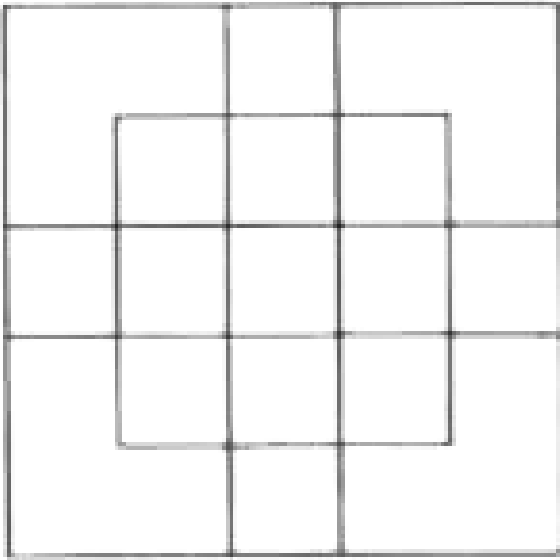
**Answer: D**



**View Text Solution**

**33.** How many squares does the following figures contain ?





A. 18

B. 19

C. 20

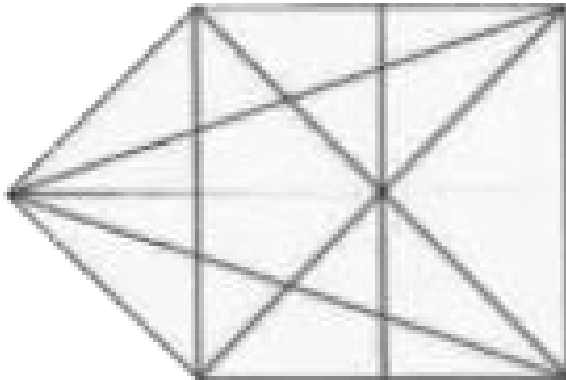
D. 27

**Answer: D**



[View Text Solution](#)

34. What is the number of straight lines in the following figure



A. 10

B. 11

C. 12

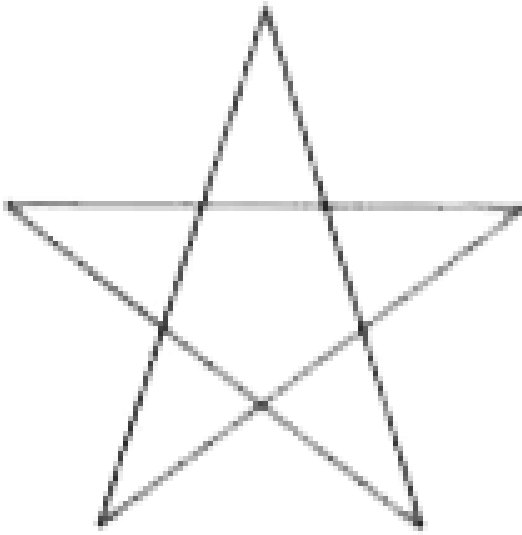
D. 13

**Answer: C**



**View Text Solution**

**35.** How many triangles are there in the figure given below ?



A. 5

B. 6

C. 7

D. 10

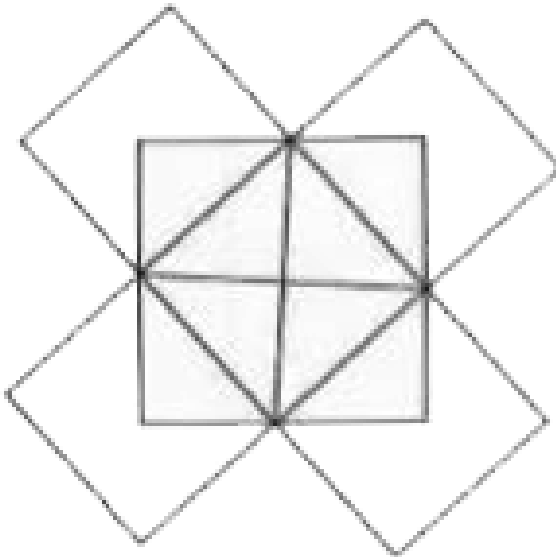
**Answer: D**

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[View Text Solution](#)

**36.** How many rectangles does the following figure have ?



A. 10

B. 12

C. 13

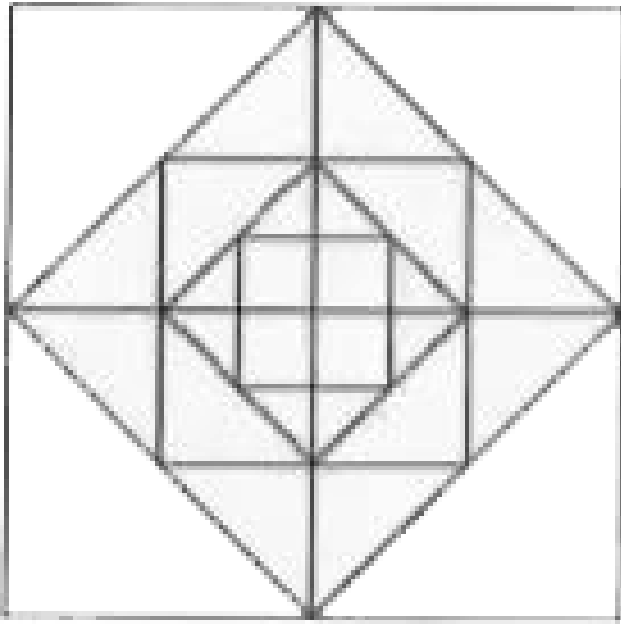
D. 14

**Answer: D**



**View Text Solution**

**37.** How many squares are there in the figure given below ?



A. 11

B. 12

C. 13

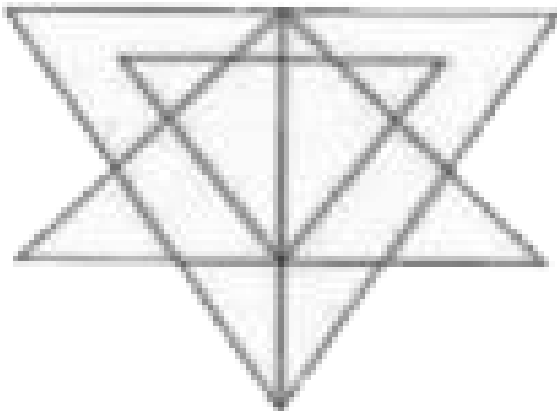
D. 17

**Answer: D**



**View Text Solution**

**38.** Count the number of triangles in the following figure



A. 27



B. 25

C. 23

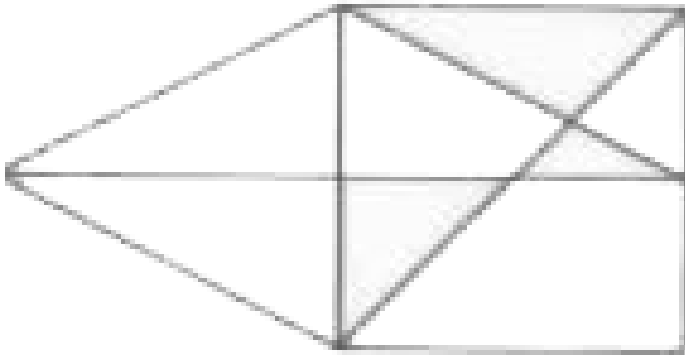
D. 21

**Answer: A**



**View Text Solution**

**39.** How many triangles are there in the following figure ?



A. 11

B. 12

C. 13

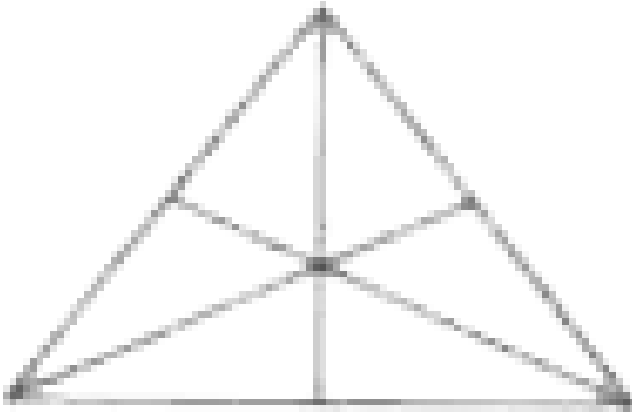
D. 15

**Answer: D**



**View Text Solution**

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



A. 8

B. 9

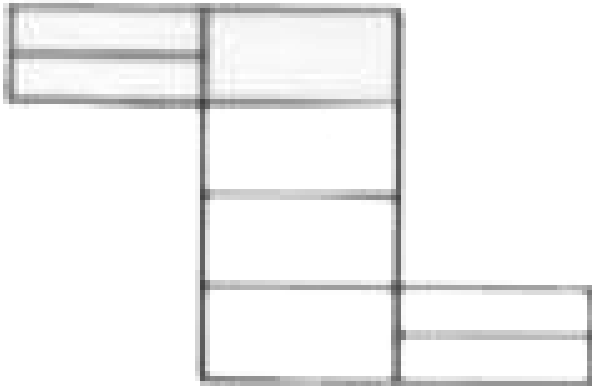
C. 16

D. 11

**Answer: C**

 [View Text Solution](#)

**41.** Count the number of rectangles in the following figure.



A. 8

B. 17

C. 18

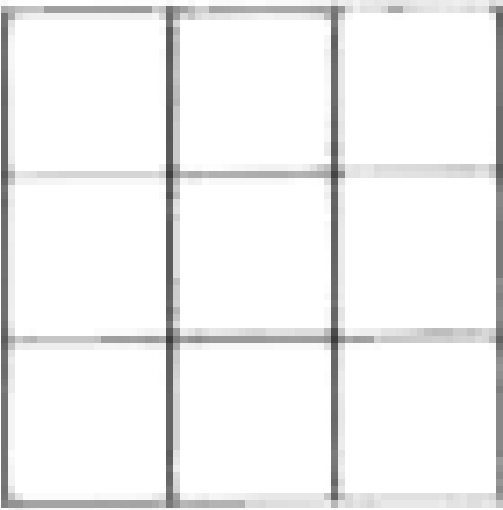
D. 19

**Answer: C**



**View Text Solution**

**42.** How many maximum squares are in the following figure ?



A. 9

B. 10

C. 13

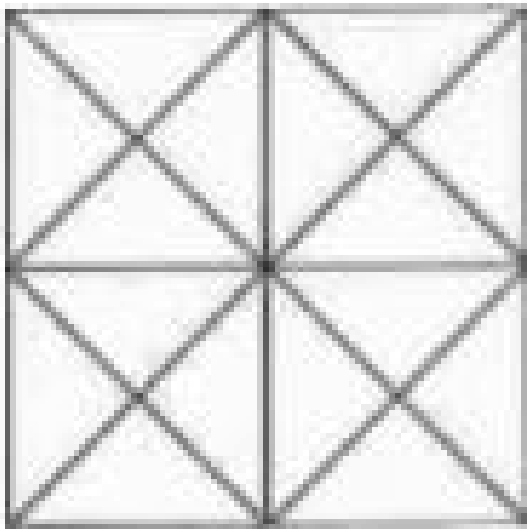
D. 14

**Answer: D**



[View Text Solution](#)

**43.** How many squares are there in the given figure ?



A. 6

B. 9

C. 10

D. 15

**Answer: C**

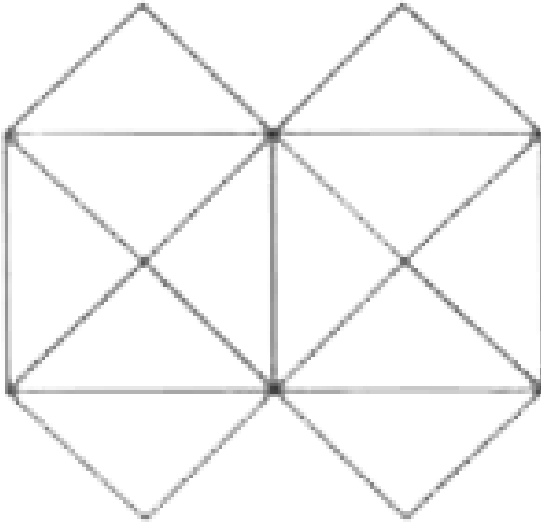


**View Text Solution**

**44.** Which is the minimum number of straight lines that is needed to construct the following



figure



A. 12

B. 13

C. 15

D. 18

**Answer: B**

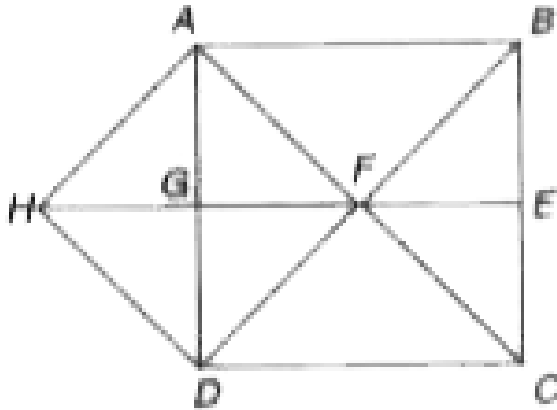


**View Text Solution**

## Example

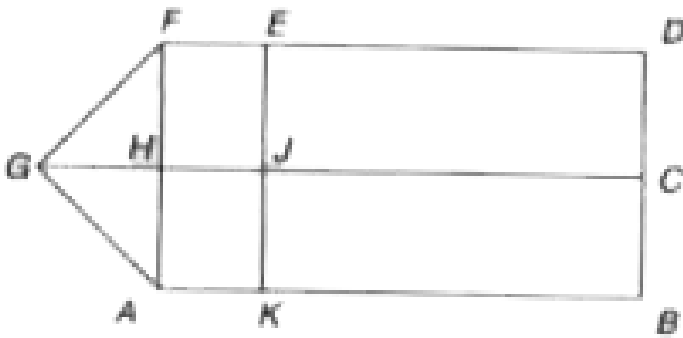
1. Find the number of straight lines and the number of triangles in the complex figure

given below .



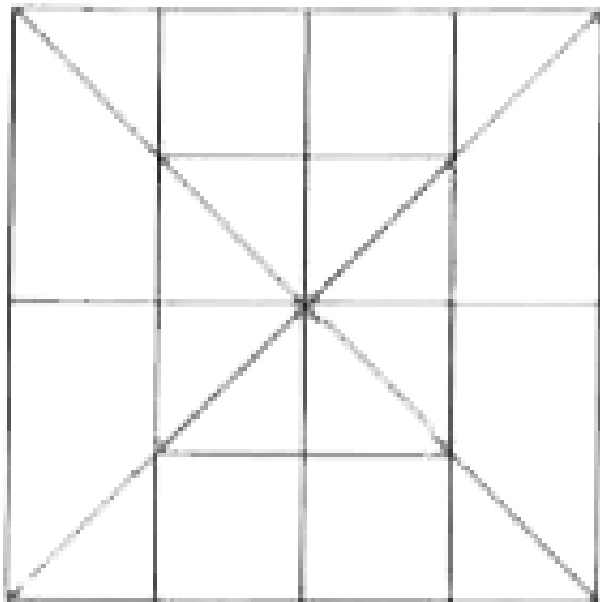
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2. Find the number of rectangles contained in the figure given below :



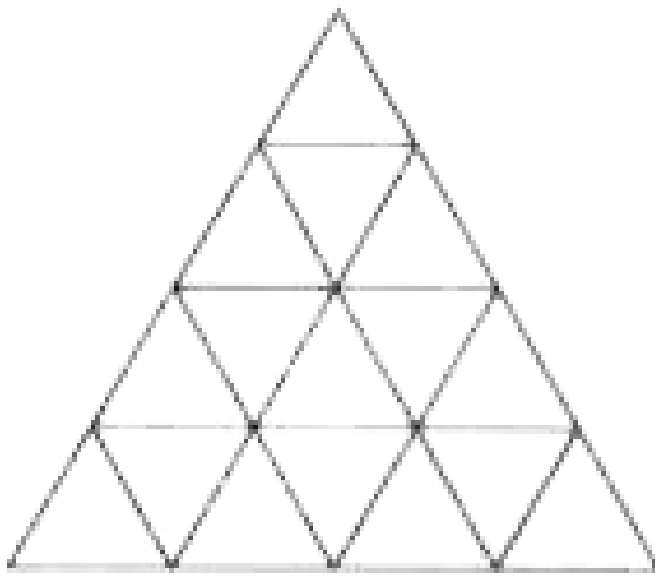
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3. Find the number of squares in the figure given below :



[View Text Solution](#)

4. Find the number of parallelogram contained in the following figure.



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