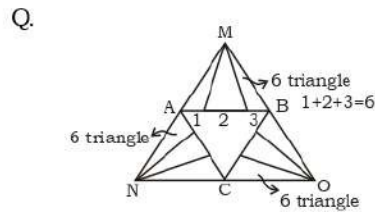
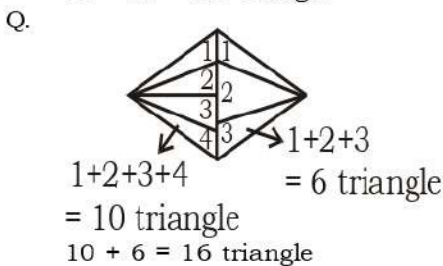
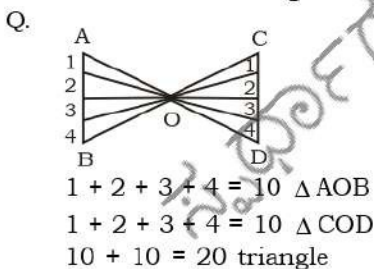
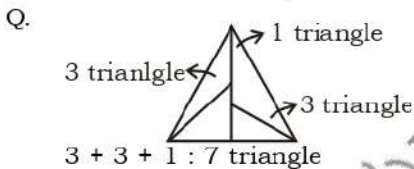
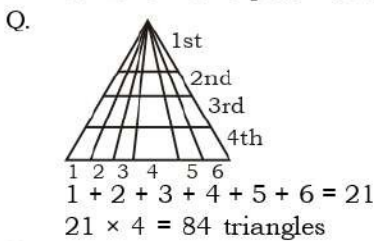
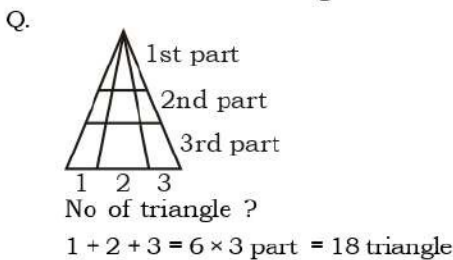
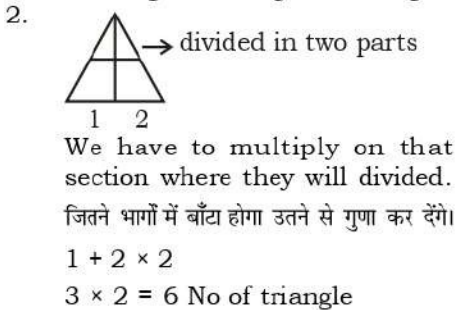
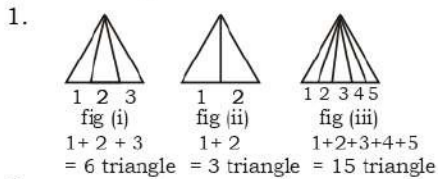
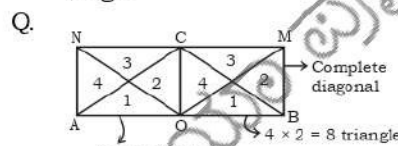
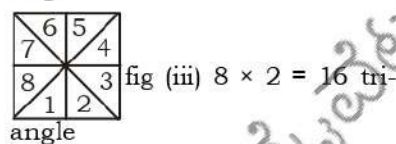
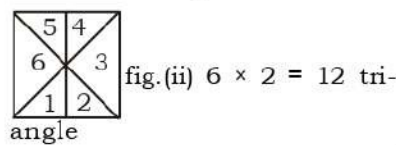
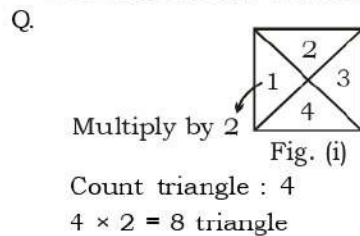


$$55 + 20 = 75$$

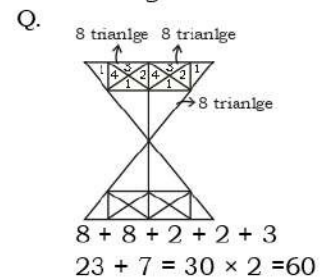
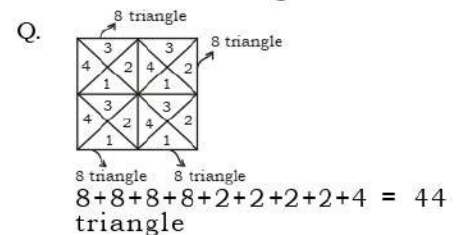
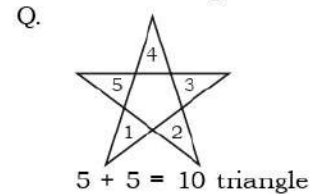
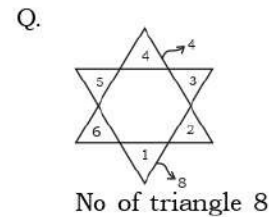
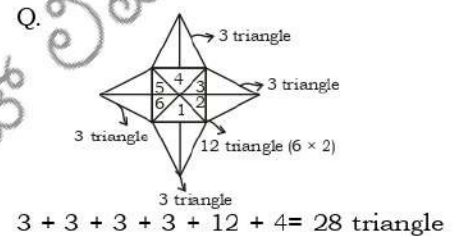
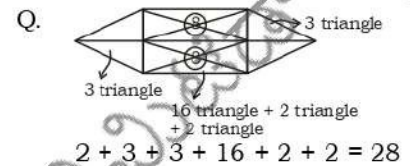
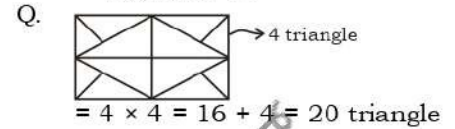
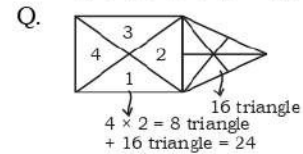
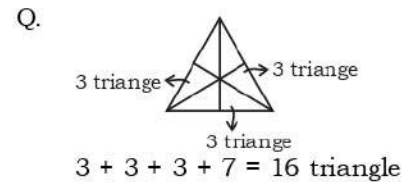
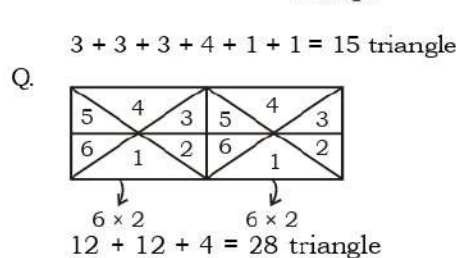
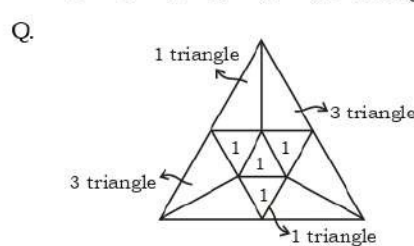
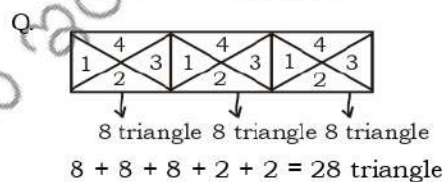
Triangle



Sol. $6 + 6 + 6 + \triangle ABC + \triangle MNO$
 $18 + 1 + 1 = 20$ triangle
TYPE INDIVIDUAL TRIANGLES



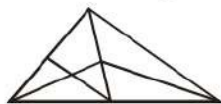
Sol $8 + 8 + \triangle ABC + \triangle MNO$
 $16 + 1 + 1 = 18$ triangle



EXERCISE

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

दिये गये चित्र में कितने त्रिभुज हैं ?



- (a) 11 (b) 13
(c) 9 (d) 15

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

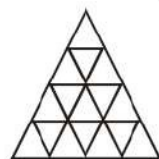
दिये गये चित्र में कितने त्रिभुज हैं ?



- (a) 20 (b) 24
(c) 28 (d) 32

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

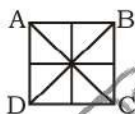
दिये गये चित्र में कितने त्रिभुज हैं ?



- (a) 29 (b) 27
(c) 23 (d) 30

4. How many triangles are there in the given figure ?

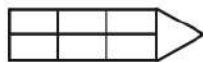
दिये गये चित्र में कितने त्रिभुज हैं ?



- (a) 16 (b) 14
(c) 8 (d) 12

5. How many rectangles are there in the given diagram ?

दिये गये चित्र में कितने आयत हैं ?



- (a) 4 (b) 7
(c) 19 (d) 18

6. How many triangles are there in the given figure ?

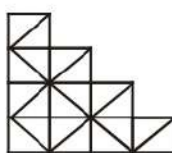
दिये गये चित्र में कितने त्रिभुज हैं ?



- (a) 29
(b) 38
(c) 35
(d) None of these

7. How many squares are there in the given figure ?

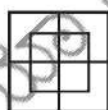
दिये गये चित्र में कितने वर्ग हैं ?



- (a) 10 (b) 11
(c) 12 (d) 14

8. How many squares are there in the given figure ?

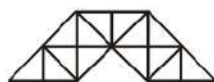
दिये गये चित्र में कितने वर्ग हैं ?



- (a) 7 (b) 12
(c) 8 (d) 10

9. Count the number of triangles in the following figure.

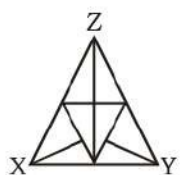
दिये गये चित्र में त्रिभुजों की संख्या बताइये।



- (a) 27
(b) 23
(c) 31
(d) None of these

10. Find the number of triangles in the given figure.

दिये गये चित्र में कितने त्रिभुज हैं ?



- (a) 17 (b) 15
(c) 13 (d) 9

11. How many circles are there in this figure ?

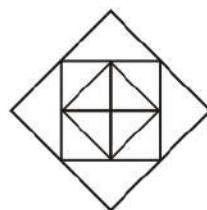
दिये गये चित्र में कितने वृत्त हैं ?



- (a) 19 (b) 18
(c) 17 (d) 21

12. How many squares are there in this figure ?

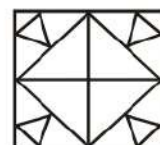
दिये गये चित्र में कितने वर्ग हैं ?



- (a) 19 (b) 7
(c) 17 (d) 21

13. How many triangles are there in this figure ?

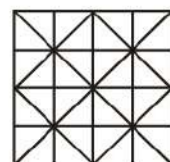
दिये गये चित्र में त्रिभुजों की संख्या बताइये ?



- (a) 24 (b) 26
(c) 28 (d) 20

14. Find out the number of squares in the given pattern.

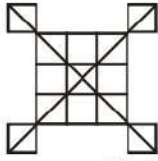
दिये गये चित्र में कितने वर्ग हैं ?



- (a) 26 (b) 30
(c) 35 (d) 38

15. Find out the number of squares in the given figure.

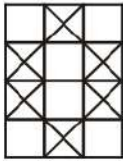
दिये गये चित्र में वर्गों की संख्या बताइये?



- (a) 13 (b) 14
(c) 17 (d) 18

16. Find out the number of square in the given pattern.

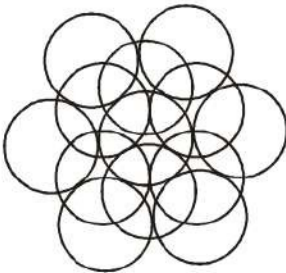
दिये गये चित्र में वर्गों की संख्या बताइये?



- (a) 20 (b) 23
(c) 12 (d) 18

17. How many circles are there in the following figure ?

दिये गये चित्र में वृत्तों की संख्या बताइये?



- (a) 12 (b) 13
(c) 14 (d) 11

18. How many triangles are there in the given figure ?

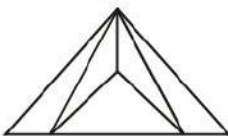
दिये गये चित्र में त्रिभुज की संख्या बताइये ?



- (a) 7 (b) 10
(c) 8 (d) 9

19. Find the number of triangles in the given figure:

दिये गये चित्र में त्रिभुज की संख्या बताइये?



- (a) 6 (b) 7
(c) 8 (d) 9

20. The figure below is a drawing of a pile of blocks. When taken apart, how many blocks would be there ?

नीचे दिये गये चित्र में ब्लॉक को दर्शाया गया है जब इन्हें अलग किया जाता है तो कितने ब्लॉक बनेंगे।

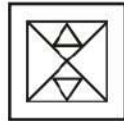


- (a) 6 (b) 3
(c) 4 (d) 5

21. How many triangles are there in this figure ?

दिये गये चित्र में कितने त्रिभुज है:-

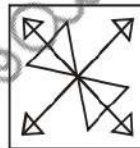
Question Figure:



- (a) 12 (b) 14
(c) 16 or more (d) 10

22. Find out the number of triangles in this figure.

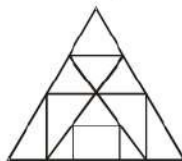
दिये गये चित्र में कितने त्रिभुज है:-



- (a) 12 (b) 14
(c) 16 (d) 18

23. Find out the number of triangles in the given figure.

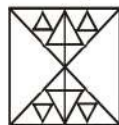
दिये गये चित्र में त्रिभुजों की संख्या बताइये?



- (a) 13 (b) 15
(c) 16 (d) 17

24. Find out the number of triangles in the given figure.

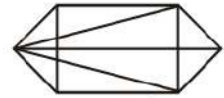
दिये गये चित्र में त्रिभुजों की संख्या बताइये?



- (a) 34 (b) 38
(c) 44 (d) 48 or more

25. Find the number of triangles in the given figure:

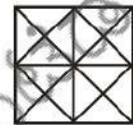
दिये गये चित्र में कितने त्रिभुज है ?



- (a) 11 (b) 14
(c) 16 (d) 22 or more

26. How many triangles are there in the given figure?

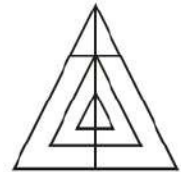
दिये गये वर्ग में कितने त्रिभुज है ?



- (a) 40 or more (b) 16
(c) 18 (d) 28

27. How many triangles are there in the given figure ?

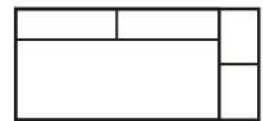
दिये गये चित्र में कितने त्रिभुज है ?



- (a) 11 (b) 12 or more
(c) 9 (d) 10

28. How many rectangles are there in the question figure ?

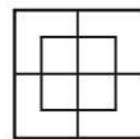
दिये गये चित्र में कितने आयत है ?



- (a) 6 (b) 7
(c) 8 (d) 9

29. How many rectangle are there in the given figure ?

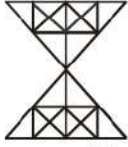
दिये गये चित्र में वर्गों की संख्या बताइये ?



- (a) 6 (b) 4
(c) 8 (d) 10 or more

30. How many triangles are there in the given figure ?

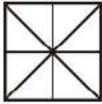
दिये गये चित्र में कितने त्रिभुज हैं ?



- (a) 48 (b) 60
(c) 56 (d) 52

31. How many quadrilaterals are there in the following figure ?

दिये गये चित्र में कितने चतुर्भुज हैं ?



- (a) 6 (b) 7
(c) 8 (d) 9

32. How many triangles are there in the following square ?

दिये गये वर्ग में कितने त्रिभुज हैं ?



- (a) 11 (b) 7
(c) 8 (d) 6

33. How many faces can you count in this 3 dimensional model ?

दिये गये 3-D मॉडल में सतह की संख्या को बताइये ?



- (a) 12 (b) 14
(c) 16 (d) 18

34. How many triangles are embedded in the figure given below ?

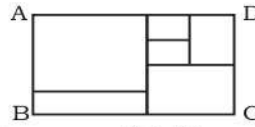
दिये गये चित्र में त्रिभुजों की संख्या को बताइये ?



- (a) 16 (b) 6
(c) 22 (d) 24

35. How many rectangles are there in the figure ABCD ?

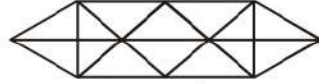
दिये गये चित्र ABCD में आयतों की संख्या बताइये ?



- (a) 11 (b) 12
(c) 9 (d) 10

36. How many triangles are there in the figure ?

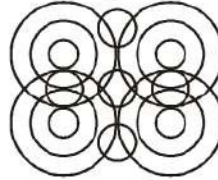
दिये गये चित्र में त्रिभुजों की संख्या को बताइये ?



- (a) 24 (b) 14
(c) 28 (d) 20

37. Find out the number of circles in the given figure:

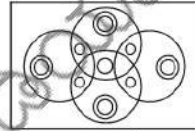
दिये गये चित्र में वृत्तों की संख्या को बताइये ?



- (a) 14 (b) 16
(c) 17 (d) 18

38. How many circles are there in this figure ?

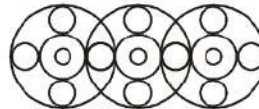
दिये गये चित्र में कितने वृत्त हैं ?



- (a) 16 (b) 13
(c) 17 (d) 22

39. Find out the number of circles in the given figure.

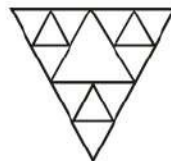
दिये गये चित्र में वृत्तों की संख्या बताइये ?



- (a) 18 (b) 19
(c) 16 (d) 20

40. The number of triangle in the following diagram is:

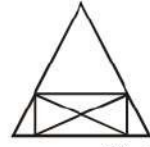
दिये गये चित्र में त्रिभुजों की संख्या बताइये ?



- (a) 13 (b) 14
(c) None (d) 17

41. Find the number of triangles in the following figure:

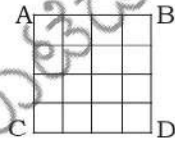
दिये गये चित्र में त्रिभुजों की संख्या बताइये ?



- (a) 14 (b) 10
(c) 12 (d) 8

42. How many squares are there in the square figure ABCD ?

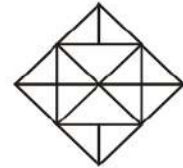
दिये गये चित्र में, ABCD एक वर्ग है इसमें वर्ग की संख्या बताइये ?



- (a) 16 (b) 17
(c) 26 (d) 30

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

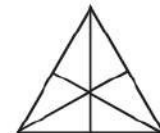
दिये गये चित्र में त्रिभुजों की संख्या बताइये ?



- (a) 18 (b) 28
(c) 20 (d) 24

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

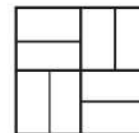
दिये गये चित्र में कितने त्रिभुज हैं ?



- (a) 16 (b) 13
(c) 9 (d) 7

45. How many rectangles are there in the given figure ?

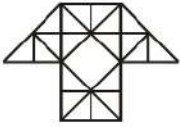
दिये गये चित्र में आयतों की संख्या बताइये ?



- (a) 24 (b) 16
(c) 21 (d) 14

46. How many triangles are there in the given figure ?

दिये गये चित्र में कितने त्रिभुज हैं ?

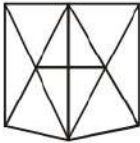


- (a) 29
(b) 38
(c) 35
(d) None of these

Directions (47-48):- How many triangles are there in the following figure?

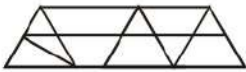
दिए गए चित्र में कितने त्रिभुज हैं ?

47.



- (a) 26 (b) 24
(c) 18 (d) 20

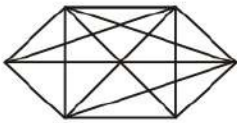
48.



- (a) 7 (b) 8
(c) 9 (d) 11

49. Find diagonals

दिये गये चित्र में विकर्णों की संख्या बताइये?



- (a) 10 (b) 12
(c) 8 (d) 6

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

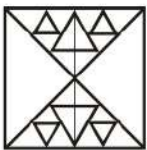
दिए गए चित्र में कितने त्रिभुज हैं ?



- (a) 12 (b) 11
(c) 15 (d) 13

51. Find out the number of triangles in the given figure.

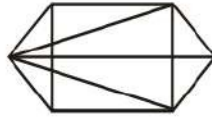
दिये गये चित्र में त्रिभुजों की संख्या बताइये?



- (a) 34 (b) 38
(c) 44 (d) 48 or more

52. Find the number of triangles in the given figure:

दिये गये चित्र में त्रिभुजों की संख्या बताइये?

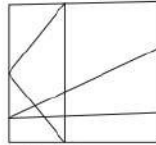


- (a) 11 (b) 14
(c) 16 (d) 22 or more

2017

53. How many triangles are there in the given figure?

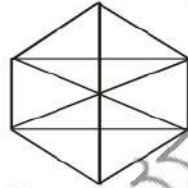
दी गई आकृति में त्रिभुजों की संख्या ज्ञात करें?



- (a) 11 (b) 9
(c) 10 (d) 12

54. How many triangles are in the given figure ?

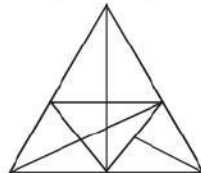
दी गई आकृति में त्रिभुजों की संख्या ज्ञात करें?



- (a) 20 (b) 22
(c) 28 (d) 32

55. How many triangles are there in the given figure?

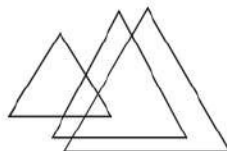
दी गई आकृति में त्रिभुजों की संख्या ज्ञात करें?



- (a) 24 (b) 30
(c) 28 (d) 29

56. How many triangle are there in the given figure?

नीचे दिए गई आकृति में कितने त्रिभुज हैं ?

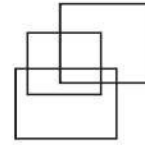


- (a) 4 (b) 5

- (c) 6 (d) 7

57. How many rectangles are there in the given figure?

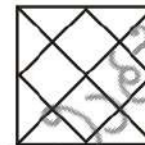
दी गई आकृति में आयत की संख्या ज्ञात करें?



- (a) 9 (b) 10
(c) 11 (d) 12

58. How many triangles are there in the given figure?

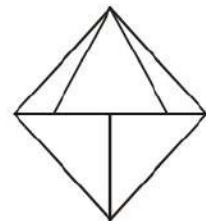
दी गई आकृति में त्रिभुजों की संख्या ज्ञात करें?



- (a) 20 (b) 23
(c) 24 (d) 26

59. How many triangles are there in the given figure?

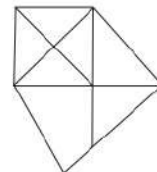
दी गई आकृति में त्रिभुजों की संख्या ज्ञात करें?



- (a) 8 (b) 9
(c) 10 (d) 12

60. How many triangles are there in the given figure?

दी गई आकृति में त्रिभुजों की संख्या ज्ञात करें?



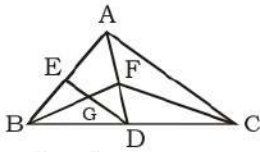
- (a) 11 (b) 12
(c) 15 (d) 13

Answer Key

1. (b)	7. (d)	13. (c)	19. (d)	25. (d)	31. (d)	37. (c)	43. (b)	49. (c)	55. (c)
2. (c)	8. (d)	14. (c)	20. (d)	26. (a)	32. (c)	38. (c)	44. (a)	50. (c)	56. (c)
3. (b)	9. (d)	15. (d)	21. (c)	27. (b)	33. (d)	39. (b)	45. (c)	51. (d)	57. (c)
4. (a)	10. (a)	16. (b)	22. (d)	28. (d)	34. (a)	40. (d)	46. (d)	52. (d)	58. (a)
5. (d)	11. (d)	17. (b)	23. (c)	29. (d)	35. (a)	41. (a)	47. (a)	53. (c)	59. (b)
6. (d)	12. (b)	18. (b)	24. (d)	30. (b)	36. (c)	42. (d)	48. (d)	54. (b)	60. (c)

SOLUTION

1. (b)

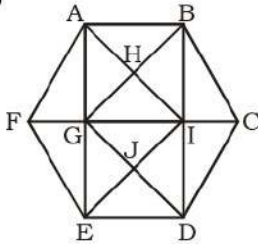


The triangles are:

त्रिभुज है :-

$\triangle ABC$; $\triangle ABD$; $\triangle ADC$; $\triangle AFC$
 $\triangle FDC$; $\triangle AFB$; $\triangle FDB$; $\triangle FBC$
 $\triangle GBD$; $\triangle ADE$; $\triangle GBE$; $\triangle FDG$
 $\triangle DBE$;

2. (c)

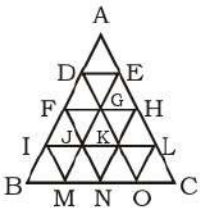


The triangles are:

त्रिभुज है :-

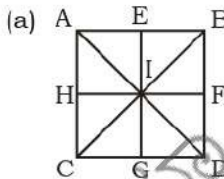
$\triangle FEB$; $\triangle CBD$; $\triangle FAG$; $\triangle FEG$
 $\triangle BCI$; $\triangle CDI$; $\triangle AFI$; $\triangle EFI$
 $\triangle BGC$; $\triangle DCG$; $\triangle AGI$; $\triangle BIH$
 $\triangle AGB$; $\triangle ABI$; $\triangle HAB$; $\triangle HBI$
 $\triangle HGI$; $\triangle HAG$; $\triangle GEI$; $\triangle GED$
 $\triangle IDE$; $\triangle IDG$; $\triangle JGI$; $\triangle JDI$
 $\triangle JGE$; $\triangle JDE$; $\triangle AIE$; $\triangle BGD$

3. (b)



$\triangle ABC$; $\triangle ADE$; $\triangle AFH$; $\triangle AIL$
 $\triangle DFG$; $\triangle DIK$; $\triangle DBO$; $\triangle GDE$
 $\triangle EGH$; $\triangle EJL$; $\triangle EMC$; $\triangle FIJ$
 $\triangle FBN$; $\triangle JFG$; $\triangle GJK$; $\triangle KGH$
 $\triangle HKL$; $\triangle HNC$; $\triangle NFH$; $\triangle GMO$
 $\triangle IBM$; $\triangle MIJ$; $\triangle JMN$; $\triangle NJK$
 $\triangle KNO$; $\triangle OKL$; $\triangle LOC$

4.

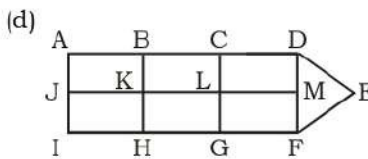


The triangles are:

त्रिभुज है :-

$\triangle AIH$; $\triangle AIE$; $\triangle EIB$; $\triangle BFI$;
 $\triangle IHC$; $\triangle IGC$; $\triangle IGD$; $\triangle DFI$;
 $\triangle IAB$; $\triangle IBD$; $\triangle ICD$; $\triangle IAC$;
 $\triangle BAC$; $\triangle ACD$; $\triangle BDC$; $\triangle BDA$;

5.



The rectangles are:

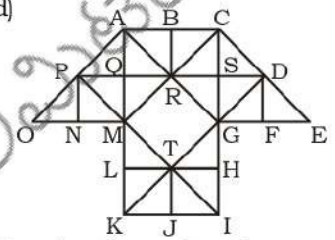
आयत है :-

$ABKJ$; $JKHI$; $BCLK$; $KLGH$
 $CDML$; $CDML$; $LMFG$; $ACGI$;
 $ACGI$; $ACLJ$; $JLGI$; $BGFH$;
 $BDFH$; $BDMK$; $KMFH$; $ADFI$;
 $ADMJ$; $JMFI$; $(ADFI$; $ADMJ$;
 $ADMJ$; $JMFI$; $ABHI$; $BCGH$ and
 $CDFG$ are squares.)

We know that every square is a rectangle. But its reverse is not always true.

हम जानते हैं कि प्रत्येक वर्ग आयत है लेकिन इसका विपरीत हमेशा सही नहीं है।

6. (d)



The simplest triangles are:

छोटे त्रिभुज है:-

$\triangle PNO$; $\triangle PNM$; $\triangle MPO$; $\triangle MQR$;
 $\triangle MQR$; $\triangle AQP$; $\triangle AQP$; $\triangle AQR$
 $\triangle BRA$; $\triangle BRC$; $\triangle SRC$; $\triangle SCD$
 $\triangle DFG$; $\triangle DFE$; $\triangle TLM$; $\triangle TJK$
 $\triangle TLK$; $\triangle TIH$;

The triangles composed of two components are:

त्रिभुज दो पूरकों से मिलकर बना है।

$\triangle PON$; $\triangle PMA$; $\triangle APR$; $\triangle RAM$;
 $\triangle RAC$; $\triangle RAC$; $\triangle RGC$; $\triangle DGC$
 $\triangle DGE$; $\triangle MPR$; $\triangle GRD$; $\triangle DCR$;
 $\triangle TMK$; $\triangle TKI$; $\triangle TIG$

The triangles composed of four components are:

यह त्रिभुज चार पूरकों से मिलकर बना है।

$\triangle AMO$; $\triangle AMC$; $\triangle CAG$; $\triangle CGE$
 $\triangle MKI$; $\triangle GIK$

Other triangles are

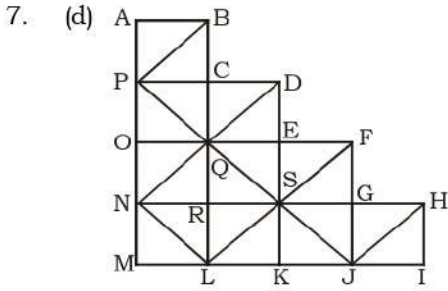
दूसरे त्रिभुज है:-

$\triangle SPI$; $\triangle DQK$; $\triangle PTD$

Total number of triangles

सभी त्रिभुजों की संख्या:-

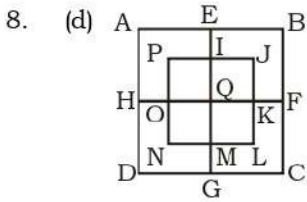
$18 + 14 + 6 + 2 + 1 = 41$



The squares are:

वर्ग है :-

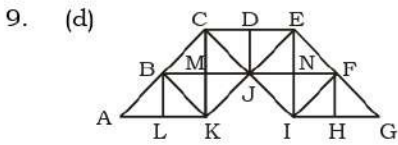
ABCP ; PCQO ; CDEQ ; OQRN ;
QESR ; EFGS ; NRLM ; RSK ;
SGJK ; GHJ ; PDSN ; OEKM ;
QFJK ; NQSL



The squares are:

वर्ग है :-

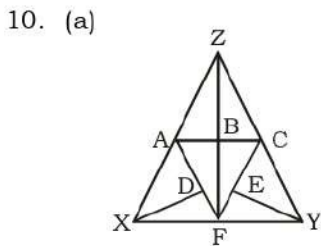
ABCD ; AEQH ; EBFQ ; HQGD ;
QFCG ; PJLN ; PIQO ; IJKQ ;
OQMN ; QKLM



The triangles are:

त्रिभुज है :-

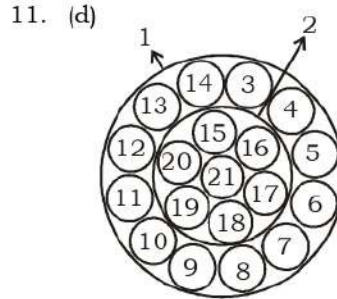
$\triangle ABL$; $\triangle BLK$; $\triangle BMK$; $\triangle BMC$;
 $\triangle CMJ$; $\triangle CDJ$; $\triangle DEJ$; $\triangle MKJ$;
 $\triangle EJN$; $\triangle JIN$; $\triangle ENF$; $\triangle NFI$;
 $\triangle FIH$; $\triangle FGH$; $\triangle ABK$; $\triangle BCK$;
 $\triangle KAC$; $\triangle BCJ$; $\triangle KBJ$; $\triangle JCE$;
 $\triangle EFJ$; $\triangle IFJ$; $\triangle FEI$; $\triangle FGI$;
 $\triangle CKE$; $\triangle CEI$; $\triangle EGI$; $\triangle CJK$;
 $\triangle EJI$



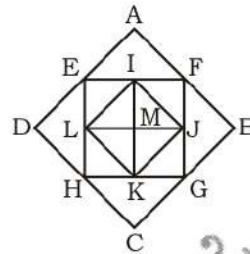
The triangles are:

त्रिभुज है :-

$\triangle ZAB$; $\triangle ZBC$; $\triangle XAD$; $\triangle XDF$;
 $\triangle FAB$; $\triangle FBC$; $\triangle YEC$; $\triangle FEY$;
 $\triangle ZAC$; $\triangle XAF$; $\triangle YFC$; $\triangle FAC$;
 $\triangle ZFX$; $\triangle ZFY$; $\triangle AFZ$; $\triangle CFZ$;
 $\triangle ZXY$



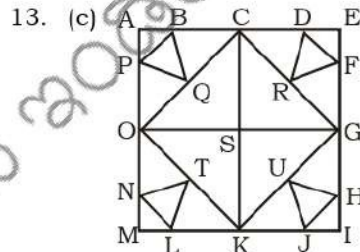
12. (b)



The squares are :

वर्ग है :-

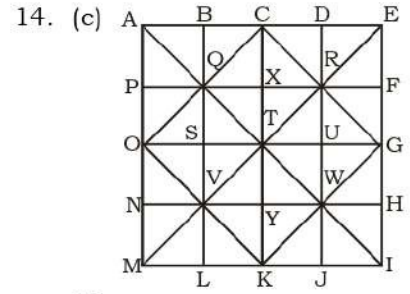
EFGH, EIML, IFJM, MJGK, LMKH,
ABCD, IJKL



The triangles are:

त्रिभुज है:-

$\triangle ABP$; $\triangle BOP$; $\triangle PQO$; $\triangle BCQ$;
 $\triangle ACO$; $\triangle CSO$; $\triangle CDR$; $\triangle DRF$;
 $\triangle DEF$; $\triangle RFG$; $\triangle CSG$; $\triangle ECG$;
 $\triangle IJH$; $\triangle JUH$; $\triangle GHU$; $\triangle JKU$;
 $\triangle GIH$; $\triangle SGK$; $\triangle ONT$; $\triangle NTL$;
 $\triangle NML$; $\triangle TLK$; $\triangle MOK$; $\triangle SOK$;
 $\triangle CGO$; $\triangle GKC$; $\triangle KGO$; $\triangle COK$



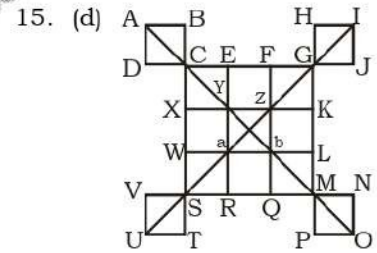
The squares are:

वर्ग है :-

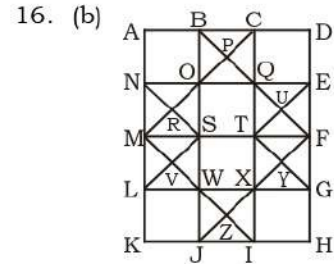
ABQP, BCXQ, CDRX, DEFR,
PQSO, QXTS, XRUT, RFGU,
OSVN, STYV, TUWY, UGHW,
NVLM, VYKL, YWJK, WHIJ,
ACTO, CEGT, OTKM, TGIK,
BDUS, SUJL, QRWV, PXYN,
XFHY, OQTV, VTWK, OCRT,
TRGW, OCGK, AEIM, ADWN,
BEHV, PRJM, QFIL

There are 35 squares.

इसमें 35 वर्ग है।



$13 + 4 + 1 = 18$



The squares are:

वर्ग है :-

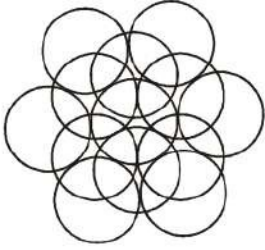
ABON, BCQO, CDEQ, NOSM,
OQTS, QFDT, MSWL, STXW,
TFGX, LWJK, WXIJ, XGHI,
ACTM, BDFS, NQXL, OEGW,
MTIK, SFHJ, ADGL, NEHK,
MRSV, TUFY, MPFZ

Thus, there are 23 squares.

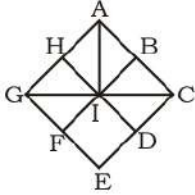
यद्यपि ये 23 वर्ग है।

17. (b) There are altogether 13 circles.

इसमें 13 वृत्त साथ-साथ हैं।



18. (b)

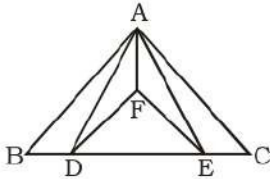


The triangles are:

त्रिभुज हैं :-

AIH, AIB, BIC, CID, GIH, GIF, ECG, ACG, AIG, AIC

19. (d)



The triangles are :

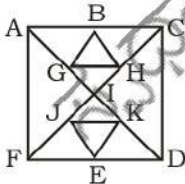
त्रिभुज हैं :-

$\triangle ABC$; $\triangle ABD$; $\triangle FAD$;
 $\triangle FAE$; $\triangle FDE$; $\triangle AEC$;
 $\triangle ADE$; $\triangle ABE$; $\triangle ADC$

20. (d) Four blocks are visible and one block is hidden.

चार ब्लॉक दिखाई देते हैं तथा एक ब्लॉक दिखाई नहीं देता है।

21. (c)

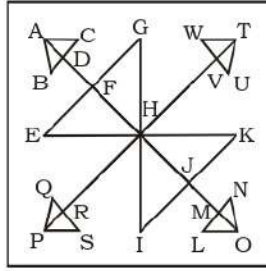


The triangles are:

त्रिभुज हैं :-

$\triangle AGB$; $\triangle BGH$; $\triangle BHC$; $\triangle IGH$
 $\triangle IJK$; $\triangle JKE$; $\triangle KED$; $\triangle JEF$
 $\triangle IAC$; $\triangle ICD$; $\triangle IFD$; $\triangle IAF$
 $\triangle CAD$; $\triangle DCF$; $\triangle AFD$; $\triangle AFC$

22. (d)



Each unit consists of three triangles and there are six units. So, the total number of triangles would be 18.

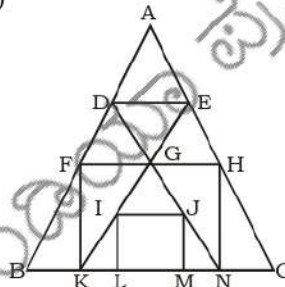
प्रत्येक यूनिट 3 त्रिभुजों से मिलकर बना है और इसमें 6 यूनिट हैं इसलिए सभी त्रिभुजों की संख्या 18 होनी चाहिए।

The triangles are:

त्रिभुज हैं:-

$\triangle ABD$; $\triangle ADC$; $\triangle ABC$; $\triangle HEF$
 $\triangle HFG$; $\triangle HEG$; $\triangle HIJ$; $\triangle HJK$
 $\triangle HIK$; $\triangle OLM$; $\triangle OMN$; $\triangle OLN$
 $\triangle PRS$; $\triangle PRQ$; $\triangle PSQ$; $\triangle TVU$;
 $\triangle TVW$; $\triangle TUW$

23. (c)

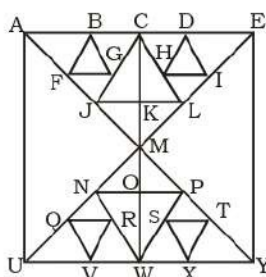


The triangles are:

त्रिभुज हैं :-

$\triangle ADE$; $\triangle GDE$; $\triangle DFG$; $\triangle EGH$
 $\triangle FKB$; $\triangle FGK$; $\triangle GIJ$; $\triangle GHN$
 $\triangle HNC$; $\triangle ILK$; $\triangle JMN$; $\triangle AFH$
 $\triangle DBN$; $\triangle GKN$; $\triangle EKC$; $\triangle ABC$

24. (d)



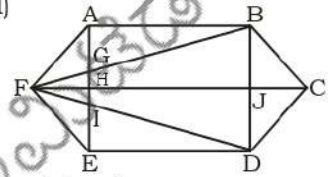
The triangles are:

त्रिभुज हैं :-

$\triangle AFB$; $\triangle BFG$; $\triangle GBC$; $\triangle CKJ$

$\triangle JGF$; $\triangle KMJ$; $\triangle JCM$; $\triangle ACJ$
 $\triangle ACM$; $\triangle HCD$; $\triangle DIH$; $\triangle IDE$
 $\triangle CKL$; $\triangle LHI$; $\triangle LKM$; $\triangle LCM$
 $\triangle CLE$; $\triangle CME$; $\triangle MON$; $\triangle WON$
 $\triangle RVW$; $\triangle QUV$; $\triangle NRQ$; $\triangle NUW$
 $\triangle MNW$; $\triangle MWU$; $\triangle VRQ$; $\triangle MOP$
 $\triangle OPQ$; $\triangle SWX$; $\triangle XTS$; $\triangle TXY$
 $\triangle PST$; $\triangle PMW$; $\triangle PWY$; $\triangle MWY$
 $\triangle CJL$; $\triangle MAE$; $\triangle MAU$; $\triangle MEY$
 $\triangle MUY$; $\triangle WPN$; $\triangle AEU$; $\triangle EAY$
 $\triangle EYU$; $\triangle AUU$; $\triangle MLJ$; $\triangle MPN$

25. (d)

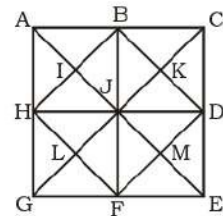


The triangles are:

त्रिभुज हैं :-

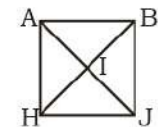
$\triangle AGF$; $\triangle GHF$; $\triangle FIH$; $\triangle FIE$
 $\triangle AFH$; $\triangle AIF$; $\triangle FEA$; $\triangle FIG$
 $\triangle FEG$; $\triangle FEH$; $\triangle BAG$; $\triangle BJK$
 $\triangle CDJ$; $\triangle CBD$; $\triangle DEI$; $\triangle AFB$
 $\triangle DEF$; $\triangle FJB$; $\triangle FCB$; $\triangle FCD$
 $\triangle FJD$; $\triangle FBD$

26. (a)



First of all take one block and count the number of triangles:

सभी का पहला एक ब्लॉक वर्ग है अतः त्रिभुजों की संख्या को गिन्ते हैं-



The triangles are:

त्रिभुज हैं :-

$\triangle IAB$; $\triangle IJB$; $\triangle IAH$; $\triangle IJH$
 $\triangle AHB$; $\triangle ABJ$; $\triangle AHJ$; $\triangle BJH$

There are four such blocks.

Therefore, the number of blocks.

Therefore, the number of

simple triangles = $4 \times 8 = 32$
Now, count the composite triangles:

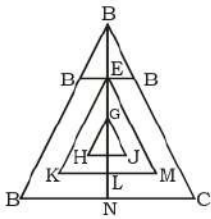
इसमें मुख्यतः चार ब्लॉक है तो त्रिभुज की संख्या = $4 \times 8 = 32$

अब विपरित त्रिभुज को गिनते हैं:-

$\triangle JAC$; $\triangle JAG$; $\triangle JCE$; $\triangle JGE$
 $\triangle BHD$; $\triangle DBF$; $\triangle FDH$; $\triangle HBF$
 $\triangle AGE$; $\triangle CEG$; $\triangle CAE$; $\triangle AGC$;
Thus, there are more than 40 triangles.

यद्यपि इसमें 40 से ज्यादा त्रिभुज है।

27. (b)

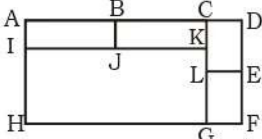


The triangles are:

त्रिभुज है :-

$\triangle ADF$; $\triangle ADE$; $\triangle AFE$; $\triangle EKM$
 $\triangle ELK$; $\triangle ELM$; $\triangle GHI$; $\triangle GHJ$
 $\triangle GIH$; $\triangle GIJ$; $\triangle ABC$; $\triangle ANB$;
 $\triangle ANC$

28. (d)

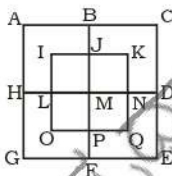


The Rectangles are :

आयत है:-

$ABJI$; $BCKJ$; $CDEL$; $LEFG$; $IKGH$;
 $CDLG$; $ACGH$; $ACKI$; $ADFH$

29. (d)



The rectangles are:

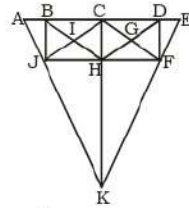
वर्ग है :-

$IJPO$; $JKQP$; $IKNL$; $LNQO$;
 $ABFG$; $BCEF$; $ACDH$; $HDEG$;
Square are also rectangles;
there are 10 squares;
 $ABMH$; $BCDM$; $HMFG$; $MDEF$;
 $IJML$; $JKNM$; $MNQP$; $LMPO$;
 $ACEG$; $IKQO$

30. (b) Count the number of triangles in the upper part and

take its double to get the total number of triangles.

त्रिभुज के ऊपरी भाग में त्रिभुजों को गिनते हैं फिर सभी त्रिभुजों की संख्या प्राप्त करने के लिए इसे दो गुना कर देते हैं।



The triangle are:

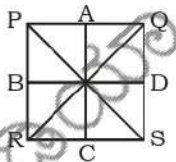
त्रिभुज है :-

$\triangle ABJ$; $\triangle IBJ$; $\triangle IBC$; $\triangle ICH$
 $\triangle IJH$; $\triangle BJH$; $\triangle CHJ$; $\triangle CBH$
 $\triangle BCJ$; $\triangle GCH$; $\triangle GCD$; $\triangle GDF$
 $\triangle GHJ$; $\triangle CHF$; $\triangle DFH$; $\triangle DCF$;
 $\triangle CDH$; $\triangle DEF$; $\triangle KHJ$; $\triangle KHF$;
 $\triangle KCA$; $\triangle KCE$; $\triangle JAC$; $\triangle HBD$;
 $\triangle FCE$; $\triangle CJF$; $\triangle KJC$; $\triangle KFC$;
 $\triangle KAE$; $\triangle KJF$;

Now total number of triangles

अब सभी त्रिभुजों की संख्या
 $= 2 \times 30 = 60$

31. (d)

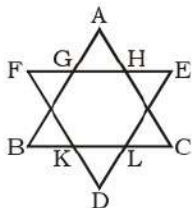


Quadrilaterals are:

चतुर्भुज है -

$PAOB$; $AQDO$; $BOCR$; $ODSC$;
 $PQDB$; $BDSR$; $PACR$; $AQSC$;
 $PQSR$

32. (c)



The triangles are:

त्रिभुज है

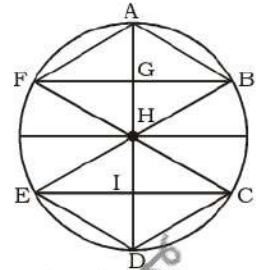
$\triangle AGH$; $\triangle EHI$; $\triangle CIL$; $\triangle DKL$;
 $\triangle BJK$; $\triangle FGJ$; $\triangle ABC$; $\triangle DEF$

33. (d) Two faces (front and rear) are common for all the four cubes. Therefore, each cube has $6 - 2 = 4$ faces. Thus, total number of faces

दिये गये चार घनों में दो समान है घन की प्रत्येक सतह की संख्या 6 होती है। $6 - 2 = 4$ सतह

यद्यपि सभी सतहों की संख्या - सतह
 $= 4 \times 4 + 2 = 18$

34. (a)

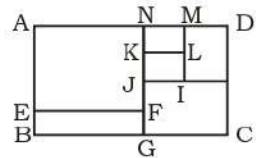


The triangles are:

त्रिभुज है:-

$\triangle AGF$; $\triangle AGB$; $\triangle AFB$; $\triangle HGF$
 $\triangle HGB$; $\triangle HFB$; $\triangle HIE$; $\triangle HIC$
 $\triangle HEC$; $\triangle DIE$; $\triangle DIC$; $\triangle DEC$
 $\triangle FHA$; $\triangle BHA$; $\triangle CHD$; $\triangle EHD$

35. (a)

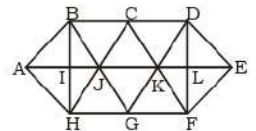


The rectangles are:

आयत है:-

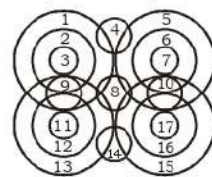
$ANFE$; $EFGB$; $JHCG$; $NDHJ$;
 $NMLK$; $KLIJ$; $MDHI$; $ANGB$;
 $NDCG$; $ABCD$; $NMIJ$

36. (c)



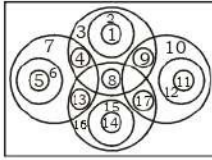
$\triangle ABI$; $\triangle AHI$; $\triangle ABH$; $\triangle BJI$
 $\triangle HJI$; $\triangle JBH$; $\triangle JBC$; $\triangle JHG$
 $\triangle CJK$; $\triangle GKJ$; $\triangle KCD$; $\triangle KGF$
 $\triangle KDF$; $\triangle DLE$; $\triangle FLE$; $\triangle EDF$
 $\triangle DLK$; $\triangle FLK$; $\triangle BGH$; $\triangle BHC$
 $\triangle CHF$; $\triangle GBD$; $\triangle DFC$; $\triangle DFG$
 $\triangle BAJ$; $\triangle HAJ$; $\triangle DKE$; $\triangle FKE$

37. (c)

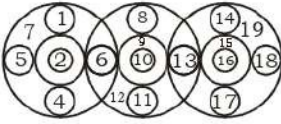


There are 17 circles.

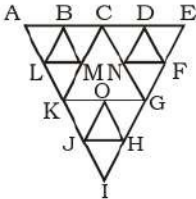
38. (c)



39. (b)



40. (d)



The triangles are:-

त्रिभुज है :-

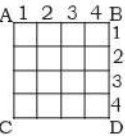
$\triangle ALB$; $\triangle BLM$; $\triangle BMC$; $\triangle CND$
 $\triangle DNF$; $\triangle DEF$; $\triangle KLM$; $\triangle GNF$
 $\triangle CKG$; $\triangle KJO$; $\triangle OJH$; $\triangle OHG$
 $\triangle JHI$; $\triangle KAC$; $\triangle GCE$; $\triangle IKG$;
 $\triangle IAE$;

41. (a) The TRIANGLES ARE:

त्रिभुज है:-

$\triangle ADE$; $\triangle DEG$; $\triangle DGH$; $\triangle HDE$
 $\triangle HEF$; $\triangle EFC$; $\triangle HGF$; $\triangle DEG$
 $\triangle DGF$; $\triangle EFG$; $\triangle DEF$; $\triangle ECG$
 $\triangle DBF$; $\triangle ABC$

42. (d)

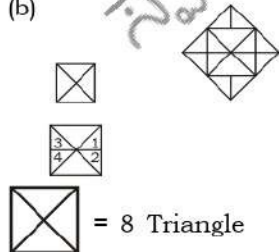


According to Formula

सूत्र के अनुसार :-

$$4 \times 4 + 3 \times 3 + 2 \times 2 + 1 \times 1 = 16 + 9 + 4 + 1 = 30 \text{ squares}$$

43. (b)



Then $\begin{array}{|c|c|} \hline 3 & 1 \\ \hline 4 & 2 \\ \hline \end{array} = 8 + 4 = 12$

Triangle

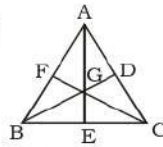
$\triangle \times 4 = 3 \times 4 = 12$

Extra = 4

Total = 12 + 12 + 4 = 28

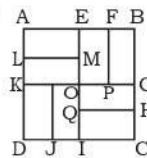
Triangle

44. (a)



Triangle = $\triangle ABC$, $\triangle ABE$,
 $\triangle ACE$, $\triangle ABD$, $\triangle ACF$, $\triangle ABD$,
 $\triangle BCD$, $\triangle AFG$, $\triangle ADG$, $\triangle BFG$,
 $\triangle BEG$, $\triangle CEG$, $\triangle CDG$, $\triangle ACG$,
 $\triangle ABG$, $\triangle BCG = 16$

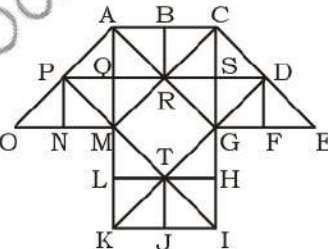
45. (c)



The rectangles, are: $AEML$,
 $LMOK$, $AEOK$, $KNJD$, $NOIJ$,
 $KOID$, $AEID$, $LMID$, $EFPO$, $FBGP$,
 $EBGO$, $OGHQ$, $OHCI$, $OGCI$,
 $EBHQ$, $EBCI$, $AFPK$, $ABGK$,
 $NGCJ$, $KGCD$, $ABCD$.

Thus, there are 21 rectangles.

46. (d)



The simplest triangles are:

$\triangle PNQ$; $\triangle PNM$; $\triangle MPQ$; $\triangle MQR$;
 $\triangle MQR$; $\triangle AQP$; $\triangle AQP$; $\triangle AQR$
 $\triangle BRA$; $\triangle BRC$; $\triangle SRC$; $\triangle SCD$
 $\triangle DFG$; $\triangle DFE$; $\triangle TLM$; $\triangle TJK$
 $\triangle TLK$; $\triangle TIH$;

The triangles composed of two components are:

$\triangle PON$; $\triangle PMA$; $\triangle APR$; $\triangle RAM$;
 $\triangle RAC$; $\triangle RAC$; $\triangle RGC$; $\triangle DGC$
 $\triangle DGE$; $\triangle MPR$; $\triangle GRD$; $\triangle DCR$;
 $\triangle TMK$; $\triangle TKI$; $\triangle TIG$

The triangles composed of four components are:

$\triangle AMO$; $\triangle AMC$; $\triangle CAG$; $\triangle CGE$
 $\triangle MKI$; $\triangle GIK$

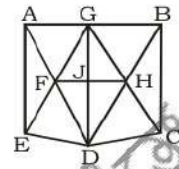
Other triangles are

$\triangle SPI$; $\triangle DQK$, PDT

Total number of triangles

$$18 + 14 + 6 + 2 + 1 = 41$$

47. (a)

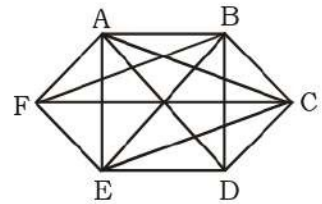


48. (d)



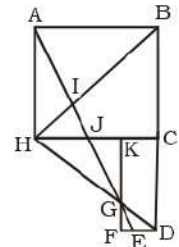
The triangles are : $\triangle ADI$, $\triangle AJK$,
 $\triangle DIJ$, $\triangle IJK$, $\triangle EGH$, $\triangle ELM$, $\triangle GMN$, $\triangle GBE$,
 $\triangle BFN$, $\triangle BCG$, $\triangle JAI$

49. (c)



The diagonals are : EC , AC , BE ,
 BF , AD , CF , AE , BD .

50. (c)

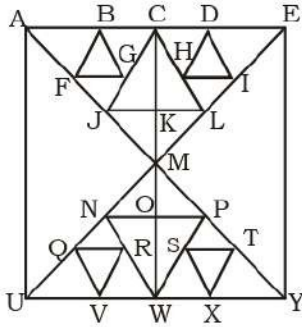


The triangles are :

$\triangle ABH$, $\triangle BCH$, $\triangle AHI$, $\triangle HIJ$,
 $\triangle AHJ$, $\triangle ABI$, $\triangle GHJ$, $\triangle GHI$,
 $\triangle GJK$, $\triangle GHK$, $\triangle DFG$, $\triangle EFG$,
 $\triangle CDH$, $\triangle BDH$, $\triangle DEG$

Thus there are 15 triangles.

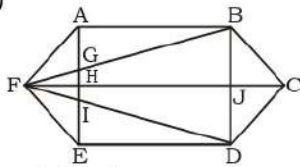
51. (d)



The triangles are:

$\triangle AFB$; $\triangle BFG$; $\triangle GBC$; $\triangle CKJ$
 $\triangle JGF$; $\triangle KMJ$; $\triangle JCM$; $\triangle ACJ$
 $\triangle ACM$; $\triangle HCD$; $\triangle DIH$; $\triangle IDE$
 $\triangle CKL$; $\triangle LHI$; $\triangle LKM$; $\triangle LCM$
 $\triangle CLE$; $\triangle CME$; $\triangle MON$; $\triangle WON$
 $\triangle RVW$; $\triangle QUV$; $\triangle NRQ$; $\triangle NUW$
 $\triangle MNW$; $\triangle MWU$; $\triangle VRQ$; $\triangle MOP$
 $\triangle OPQ$; $\triangle SWX$; $\triangle XTS$; $\triangle TXY$
 $\triangle PST$; $\triangle PMW$; $\triangle PWY$; $\triangle MWY$
 $\triangle CJL$; $\triangle MAE$; $\triangle MAU$; $\triangle MEY$
 $\triangle MUY$; $\triangle WPN$; $\triangle AEU$; $\triangle EAY$
 $\triangle EYU$; $\triangle AUU$; $\triangle MLJ$; $\triangle MPN$

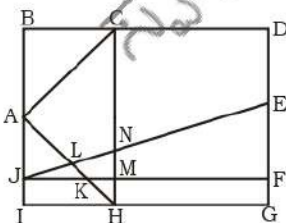
52. (d)



The triangles are:

$\triangle AGF$; $\triangle GHF$; $\triangle FIH$; $\triangle FIE$
 $\triangle AFH$; $\triangle AIF$; $\triangle FEA$; $\triangle FIG$
 $\triangle FEG$; $\triangle FEH$; $\triangle BAG$; $\triangle BJG$
 $\triangle CDJ$; $\triangle CBD$; $\triangle DEL$; $\triangle AFB$
 $\triangle DEF$; $\triangle FJB$; $\triangle FCB$; $\triangle FCD$
 $\triangle FJD$; $\triangle FBD$

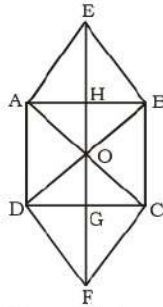
53. (c)



The no. of triangles:

$\triangle ACH$, $\triangle ACB$, $\triangle AIH$, $\triangle AJK$, $\triangle KMH$, $\triangle ALJ$,
 $\triangle JLK$, $\triangle NJM$, $\triangle JEF$, $\triangle NHL$
 Thus, there are 10 triangles in this image.

54. (b)

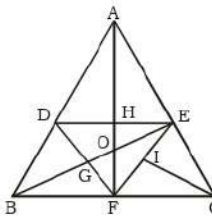


No. of triangles:

$\triangle AOD$, $\triangle AOB$, $\triangle BOC$, $\triangle COD$, $\triangle ADC$,
 $\triangle BDC$, $\triangle ABC$, $\triangle ABD$, $\triangle AHO$, $\triangle BHO$,
 $\triangle DOG$, $\triangle GOC$, $\triangle AEH$, $\triangle EHB$, $\triangle AEB$,
 $\triangle DGF$, $\triangle CGF$, $\triangle DFC$, $\triangle AEO$, $\triangle BEO$,
 $\triangle FOD$, $\triangle FOC$.

Thus, there are 22 triangles in this image.

55. (c)

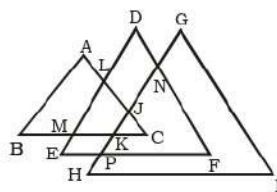


Triangles are:

$\triangle ABC$, $\triangle ABF$, $\triangle AFC$, $\triangle DEF$, $\triangle DBF$, $\triangle EFC$,
 $\triangle DBG$, $\triangle GBF$, $\triangle ECI$, $\triangle ICF$, $\triangle BOF$, $\triangle BEF$,
 $\triangle BED$, $\triangle ABO$, $\triangle DGE$, $\triangle GFE$, $\triangle DHF$, $\triangle EHF$,
 $\triangle AOE$, $\triangle DAH$, $\triangle AHE$, $\triangle ADE$, $\triangle BEC$, $\triangle FOE$,
 $\triangle HOE$, $\triangle OGF$, $\triangle ADF$, $\triangle AEF$.

There are 28 triangles in the given figure.

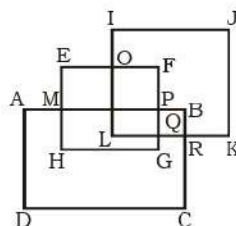
56. (c)



Triangles:

$\triangle ABC$, $\triangle DEF$, $\triangle GHI$, $\triangle JKC$, $\triangle LMC$, $\triangle NPF$
 Thus, there are 6 triangles in given figure.

57. (c)

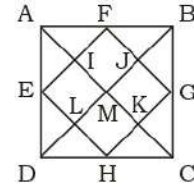


The rectangles are:

$\triangle ABCD$, $\triangle EFGH$, $\triangle IJKL$, $\triangle EONM$,
 $\triangle OFPN$, $\triangle OJQL$, $\triangle NPQL$, $\triangle NBRL$,
 $\triangle PBRQ$, $\triangle MPGH$, $\triangle EFPM$.

Thus, there are 11 rectangles in this figure.

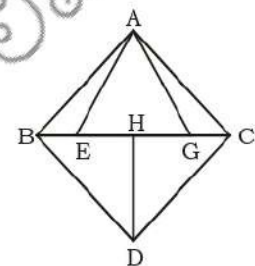
58. (a)



$\triangle AMD$, $\triangle AMB$, $\triangle BMC$, $\triangle CMD$, $\triangle ADC$,
 $\triangle BDC$, $\triangle ADB$, $\triangle ACB$, $\triangle AIE$, $\triangle AIF$, $\triangle AEF$,
 $\triangle FJB$, $\triangle BJB$, $\triangle BFG$, $\triangle GKC$, $\triangle CKH$,
 $\triangle GHC$, $\triangle HDL$, $\triangle DEL$, $\triangle EDH$.

Thus, total no. of triangles are 20.

59. (b)

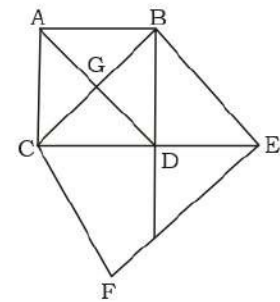


The triangles are:

$\triangle ABE$, $\triangle ABG$, $\triangle ABC$, $\triangle AEG$, $\triangle AEC$, $\triangle AGC$,
 $\triangle BDC$, $\triangle BFD$, $\triangle CFD$.

Thus, there are 9 triangles in the given figure.

60. (c)



The no. of triangles:

$\triangle AGC$, $\triangle AGB$, $\triangle BGD$, $\triangle DGC$, $\triangle ACD$,
 $\triangle BDC$, $\triangle ACB$, $\triangle ADB$, $\triangle BDE$, $\triangle EDF$, $\triangle BFE$,
 $\triangle BCF$, $\triangle CDF$, $\triangle CFE$, $\triangle CBE$.

Thus, there are 15 triangles in this figure.