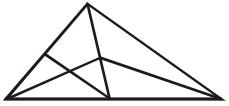
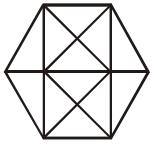
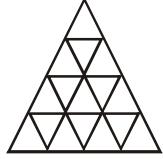
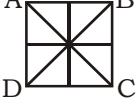
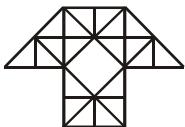
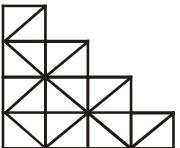
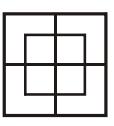
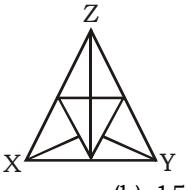
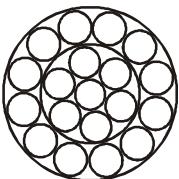
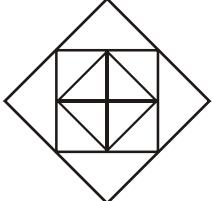
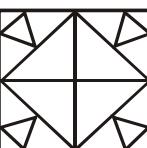
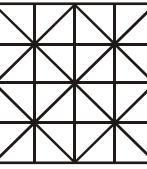
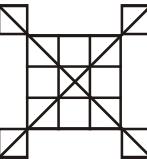
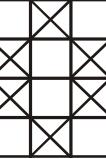
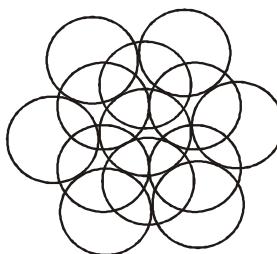


EXERCISE

1. How many triangles are there in the following figure ?
- 
- (a) 11 (b) 13
(c) 9 (d) 15
2. How many triangles are there in the following figure ?
- 
- (a) 20 (b) 24
(c) 28 (d) 32
3. How many triangles are there in the following figure ?
- 
- (a) 29 (b) 27
(c) 23 (d) 30
4. How many triangles are there in the given figure ?
- 
- A B
D C
(a) 16 (b) 14
(c) 8 (d) 12
5. How many rectangles are there in the given diagram ?
- 
- (a) 4 (b) 7
(c) 19 (d) 18
6. How many triangles are there in the given figure ?
- 
- (a) 29 (b) 38
(c) 35 (d) None of these
7. How many squares are there in the given figure ?
- 
- (a) 10 (b) 11
(c) 12 (d) 14
8. How many squares are there in the given figure ?
- 
- (a) 7 (b) 12
(c) 8 (d) 10
9. Count the number of triangles in the following figure.
- 
- (a) 27 (b) 23
(c) 31 (d) None of these
10. Find the number of triangles in the given figure.
- 
- (a) 17 (b) 15
(c) 13 (d) 9
11. How many circles are there in this figure ?
- 
- (a) 19 (b) 18
(c) 17 (d) 21
12. How many squares are there in this figure?
- 
- (a) 19 (b) 23
(c) 12 (d) 18
13. How many triangles are there in this figure ?
- 
- (a) 19 (b) 7
(c) 17 (d) 21
14. Find out the number of squares in the given pattern.
- 
- (a) 24 (b) 26
(c) 28 (d) 20
15. Find out the number of squares in the given figure.
- 
- (a) 26 (b) 30
(c) 35 (d) 38
16. Find out the number of square in the given pattern.
- 
- (a) 13 (b) 14
(c) 17 (d) 18
17. How many circles are there in the following figure ?
- 

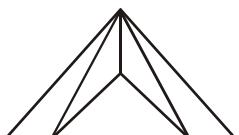
- (a) 12 (b) 13
 (c) 14 (d) 11

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



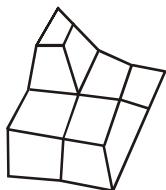
- (a) 7 (b) 10
 (c) 8 (d) 9

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



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

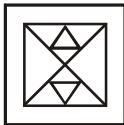
20. The figure below is a drawing of a pile of blocks. When taken apart, how many blocks would be there ?



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

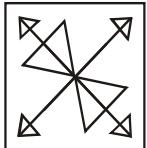
21. How many triangles are there in this figure ?

Question Figure:



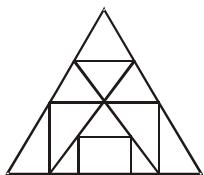
- (a) 12 (b) 14
 (c) 16 or more (d) 10

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



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

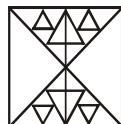
23. Find out the number of triangles in the given figure.



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

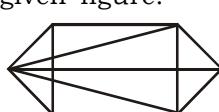
- (a) 13 (b) 15
 (c) 16 (d) 17

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



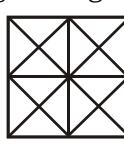
- (a) 34 (b) 38
 (c) 44 (d) 48 or more

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



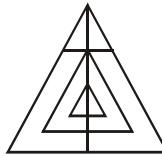
- (a) 11 (b) 14
 (c) 16 (d) 22 or more

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



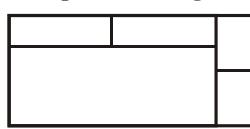
- (a) 40 or more (b) 16
 (c) 18 (d) 28

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



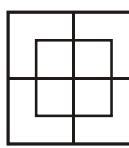
- (a) 11 (b) 12 or more
 (c) 9 (d) 10

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



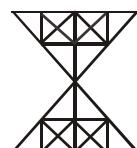
- (a) 6 (b) 7
 (c) 8 (d) 9

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



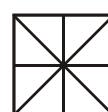
- (a) 6 (b) 4
 (c) 8 (d) 10 or more

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



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

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



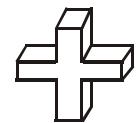
- (a) 6 (b) 7
 (c) 8 (d) 9

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



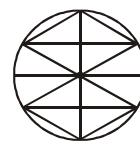
- (a) 11 (b) 7
 (c) 8 (d) 6

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



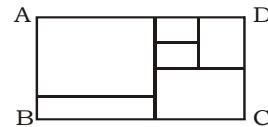
- (a) 12 (b) 14
 (c) 16 (d) 18

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



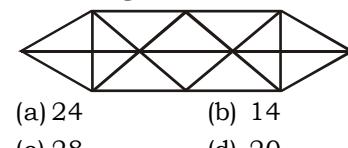
- (a) 16 (b) 6
 (c) 22 (d) 24

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



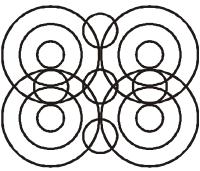
- (a) 11 (b) 12
 (c) 9 (d) 10

36. How many triangles are there in the figure ?



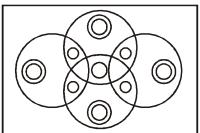
- (a) 24 (b) 14
 (c) 28 (d) 20

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



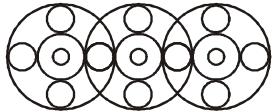
- (a) 14 (b) 16
(c) 17 (d) 18

38. How many circles are there in this figure?



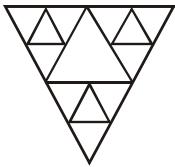
- (a) 16 (b) 13
(c) 17 (d) 22

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



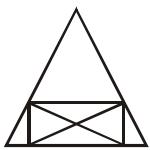
- (a) 18 (b) 19
(c) 16 (d) 20

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



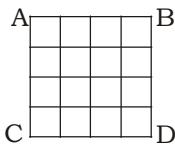
- (a) 13 (b) 14
(c) None (d) 17

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



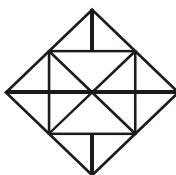
- (a) 14 (b) 10
(c) 12 (d) 8

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



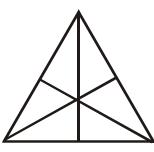
- (a) 16 (b) 17
(c) 26 (d) 30

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



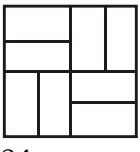
- (a) 18 (b) 28
(c) 20 (d) 24

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



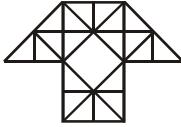
- (a) 16 (b) 13
(c) 9 (d) 7

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



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

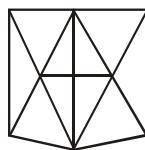
46. How many triangles are there in the given figure?



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

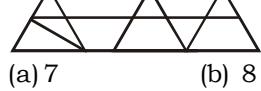
Directions (47-48):- How many triangles are there in the following figure?

47.



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

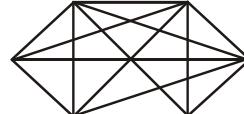
- 48.



- (a) 7 (b) 8

- (c) 9 (d) 11

49. Find diagonals



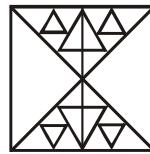
- (a) 10 (b) 12
(c) 8 (d) 6

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



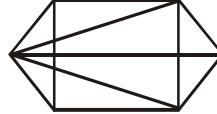
- (a) 12 (b) 11
(c) 15 (d) 13

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



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

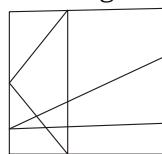
52. Find the number of triangles in the given figure:



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

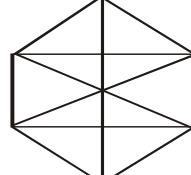
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53. How many triangles are there in the given figure?



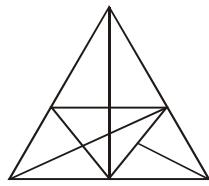
- (a) 11 (b) 9
(c) 10 (d) 12

54. How many triangles are in the given figure?

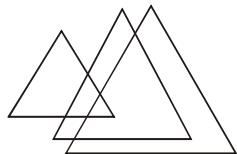


- (a) 20 (b) 22
(c) 28 (d) 32

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

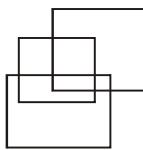


- (a) 24 (b) 30
(c) 28 (d) 29
56. How many triangles are there in the given figure?

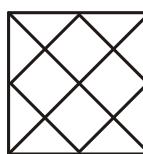


- (a) 4 (b) 5
(c) 6 (d) 7

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

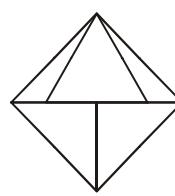


- (a) 9 (b) 10
(c) 11 (d) 12
58. How many triangles are there in the given figure?

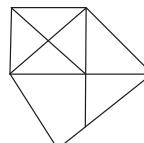


- (a) 20 (b) 23
(c) 24 (d) 26

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



- (a) 8 (b) 9
(c) 10 (d) 12
60. How many triangles are there in the given figure?



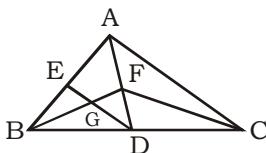
- (a) 11 (b) 12
(c) 15 (d) 13

Answer Key

1. (b)	7. (d)	13. (c)	19. (d)	25. (d)	31. (d)	37. (c)	43. (b)	49. (c)	55. (d)
2. (c)	8. (d)	14. (c)	20. (d)	26. (a)	32. (c)	38. (c)	44. (a)	50. (c)	56. (d)
3. (b)	9. (d)	15. (d)	21. (c)	27. (b)	33. (d)	39. (b)	45. (c)	51. (d)	57. (d)
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. (d)	59. (b)
6. (d)	12. (b)	18. (b)	24. (d)	30. (b)	36. (c)	42. (d)	48. (d)	54. (b)	60. (d)

SOLUTION

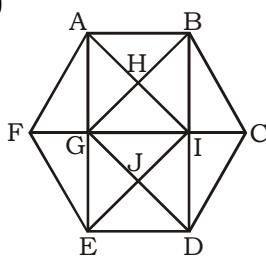
1. (b)



The triangles are:

- D ABC ; D ABD ; D ADC ; D AFC
D FDC ; D AFB ; D FDB ; D FBC
D GBD ; D ADE ; D GBE ; D FDG
D DBE ;

2. (c)

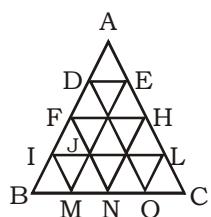


The triangles are:

- D FEB ; D CBD ; D FAG ; D FEG

- D BCI ; D CDI ; D AFI ; D EFI
D BGC ; D DCG ; D AGI ; D BIH
D AGB ; D ABI ; D HAB ; D HBI
D HGI ; D HAG ; D GEI ; D GED
D IDE ; D IDG ; D JGI ; D JDI
D JGE ; D JDE ; D AIE ; D BGD

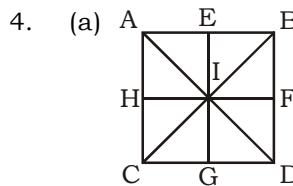
3. (b)



- D ABC ; D ADE ; D AFH ; D AIL
D DFG ; D DIK ; D DBO ; D GDE
D EGH ; D EJL ; D EMC ; D FIJ
D FBN ; D JFG ; D GJK ; D KGH
D HKL ; D HNC ; D NFH ; D GMO

- D IBM ; D MIJ ; D JMN ; D NJK
D KNO ; D OKL ; D LOC

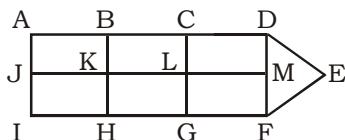
- 4.



The triangles are:

- D AIH ; D AIE ; D EIB ; D BFI;
D IHC ; D IGC ; D IGD ; D DFH;
D IAB ; D IBD ; D ICD ; D IAC;
D BAC ; D ACD ; D BDC ; D BDA;

- 5.

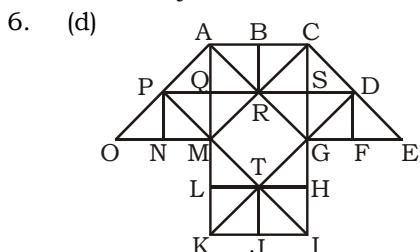


The rectangles are:

- 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.



The simplest triangles are:

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

The triangles composed of two components are:

D PON; D PMA ; D APR ; D RAM;
D RAC; D RAC; D RGC ; D DGC
D DGE; D MPR ; D GRD ; D DCR;
D TMK; D TKI; D TIG

The triangles composed of four components are:

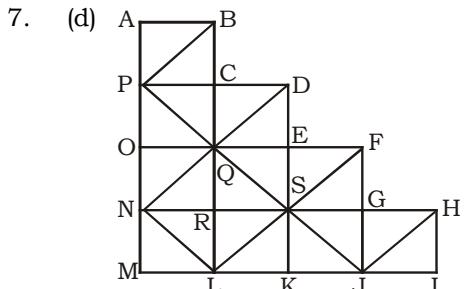
D AMO; D AMC; D CAG; D CGE
D MKI; D GIK

Other triangles are

D SPI ; D DQK, D PTD

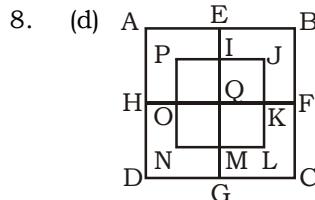
Total number of triangles

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



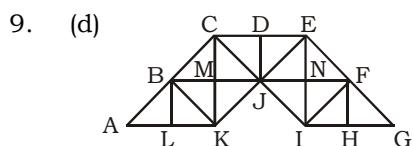
The squares are:

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



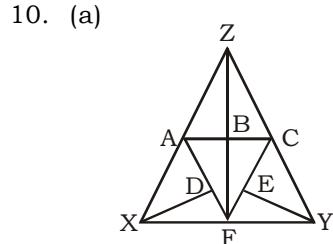
The squares are:

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



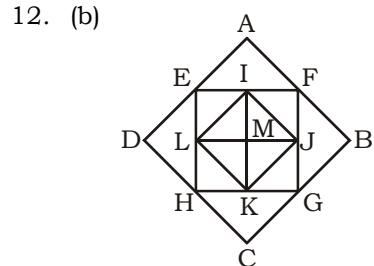
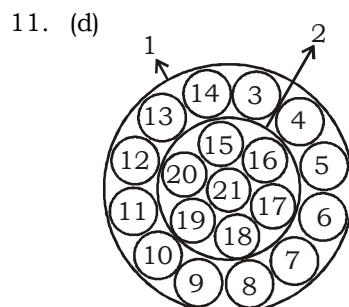
The triangles are:

D ABL; D BLK ; D BMK ; D BMC;
D CMJ; D CDJ; D DEJ ; D MKJ
D EJN; D JIN ; D ENF ; D NFI;
D FIH; D FGH; D ABK ;D BCK;
D KAC; D BCJ; D KBJ; D JCE;
D EFJ; D IFJ ; D FEI ; D FGJ;
D CKE; D CEI ; D EGI; D CJK;
D EJL



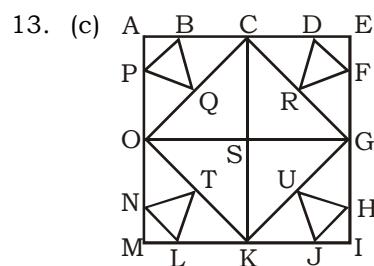
The triangles are:

D ZAB; D ZBC ; D XAD ; D XDF;
D FAB; D FBC; D YEC ; D FEY;
D ZAC; D XAF ; D YFC ; D FAC;
D ZFX; D ZFY; D AFZ ;D CFZ;
D ZXZ



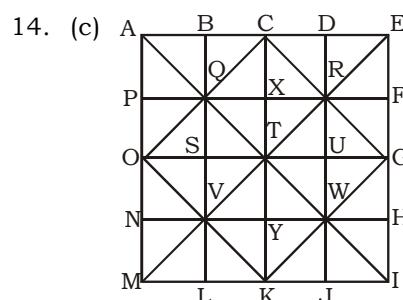
The squares are :

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



The triangles are:

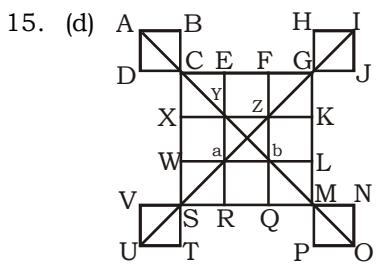
D ABP; D BQP; D PZO ; D BCQ
D ACO; D CSO ; D CDR ; D DRF;
D DEF; D RFG; D CSG ;D ECG;
D IJH; D JUH ; D GHU; D JKU
D GIH; D SGK ; D ONT; D NTL;
D NML ; D TLK; D MOK; D SOK;
D CGO; D GKC; D KGO; D COK



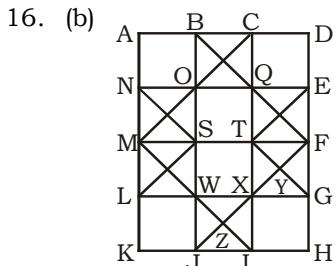
The squares are:

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.



$$13 + 4 + 1 = 18$$

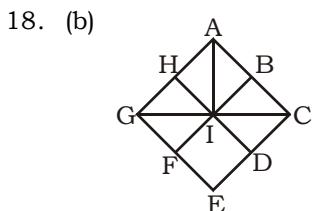
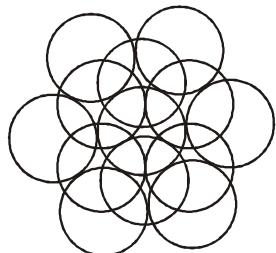


The squares are:

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

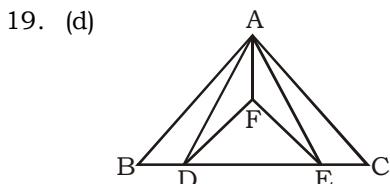
Thus, there are 23 squares.

17. (b) There are altogether 13 circles.



The triangles are:

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



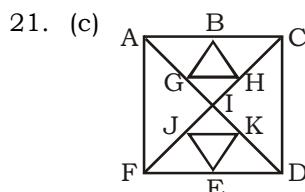
The triangles are :

D ABC ; D ABD ; D FAD ;

D FAE ; D FDE ; D AEC ;

D ADE ; D ABE ; D ADC

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



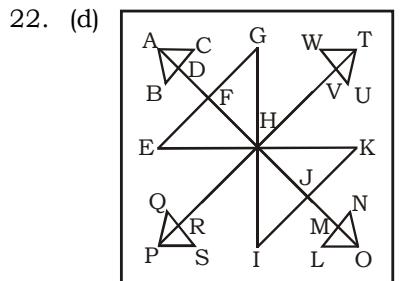
The triangles are:

D AGB; D BGH; D BHC; D IGH

D IJK; D JKE; D KED; D JEF

D IAC; D ICD; D IFD; D IAF

D CAD; D DCF; D AFD; D AFC



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

The triangles are:

D ABD; D ADC; D ABC; D HEF

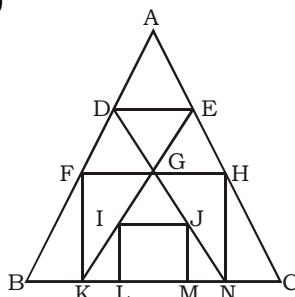
D HFG; D HEG; D HIJ; D HJK

D HIK; D OLM; D OMN; D OLN

D PRS; D PRQ; D PSQ; D TVU;

D TVW; D TUW

23. (c)



The triangles are:

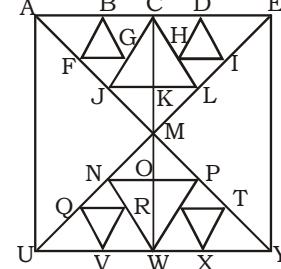
D ADE; D GDE; D DFG; D EGH

D FKB; D FGK; D GIJ; D GHN

D HNC; D ILK; D JMN; D AFH

D DBN; D GKN; D EKC; D ABC

24. (d)



The triangles are:

D AFB; D BFG; D GBC; D CKJ

D JGF; D KMJ; D JCM; D ACJ

D ACM; D HCD; D DIH; D IDE

D CKL; D LHI; D LKM; D LCM

D CLE; D CME; D MON; D WON

D RVW; D QUV; D NRQ; D NUW

D MNW; D MWU; D VRQ; D MOP

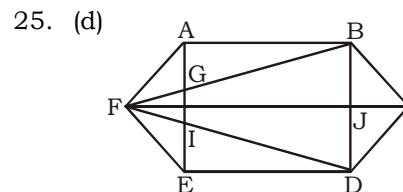
D OPQ; D SWX; D XTS; D TXY

D PST; D PMW; D PWY; D MWY

D CJL; D MAE; D MAU; D MEY

D MUY; D WPN; D AEU; D EAY

D EYU; D AUY; D MLJ; D MPN



The triangles are:

D AGF; D GHF; D FIH; D FIE

D AFH; D AIF; D FEA; D FIG

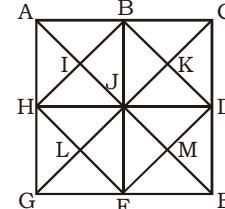
D FEG; D FEH; D BAG; D BJJ

D CDJ; D CBD; D DEI; D AFB

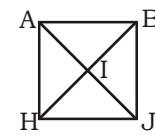
D DEF; D FJB; D FCB; D FCD

D FJD; D FBD

26. (a)



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



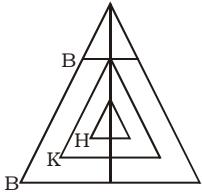
The triangles are:

D IAB; D IJB; D IAH ; D IHJ
D AHB; D ABJ; D AHJ; D 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:

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

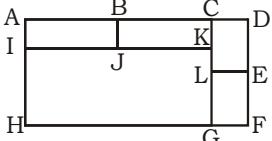
27. (b)



The triangles are:

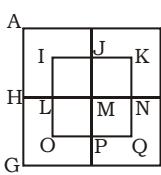
D ADF; D ADE; D AFE; D EKM
D ELK ; D ELM; D ELM; D GHJ
D GIH; D GIJ; D ABC ; D ANB;
D ANC

28. (d)



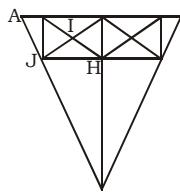
The Rectangles are :
ABJI ; BCKJ; CDEL; LEFG ; IKGH ;
CDFG ; ACGH; ACKI ; ADFH

29. (d)



The rectangles are:
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

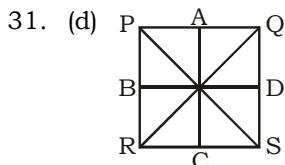
30. (b) Count the number of triangles in the upper part and take its double to get the total number of triangles.



The triangle are:

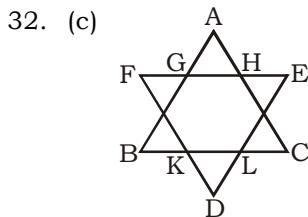
D ABJ ; D IJB; D IBC ; D ICH
D IJH ; D BJH; D CHJ; D CBH
D BCJ; D GCH; D GCD; D GDF
D GHJ; D CHF; D DFH; D DCF;
D CDH; D DEF; D KHJ; D KHF;
D KCA; D KCE; D JAC; D HBD;
D FCE; D CJF; D KJC; D KFC;
D KAE; D KJF;

Now total number of triangles
= $2 \times 30 = 60$



Quadrilaterals are:

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

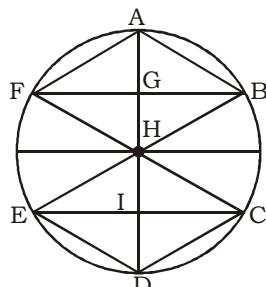


The triangles are:

D AGH; D EHI; D CIL; D DKL;
D BJK; D FGJ; D ABC; D DEF

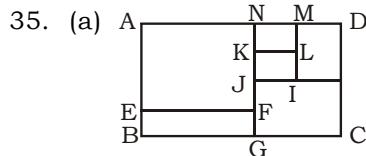
33. (d) Two faces (front and rear) are common for all the four cubes. Therefore, each cube has $6 - 2 = 4$ faces. Thus, total number of faces
= $4 \times 4 + 2 = 18$

34. (a)



The triangles are:

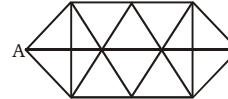
D AGF ; D AGB ; D AFB ; D HGF
D HGB ; D HFB ; D HIE ; D HIC
D HEC ; D DIE ; D DIC ; D DEC
D FHA ; D BHA ; D CHD ; D EHD



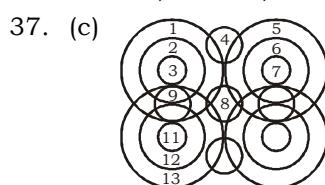
The rectangles are:

ANFE; EFGB; JHCG; NDHJ;
NMLK; KLIJ; MDHI; ANGB;
NDCG; ABCD; NMJ

36. (c)

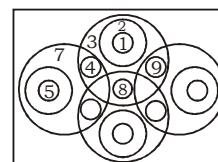


D ABI ; D AHI ; D ABH ; D BJI
D HJI ; D JBH ; D JBC ; D JHG
D CJK ; D GKJ ; D KCD ; D KGF
D KDF ; D DLE ; D FLE ; D EDF
D DLK ; D FLK ; D BGH ; D BHC
D CHF ; D GBD ; D DFC ; D DFG
D BAJ ; D HAJ ; D DKE ; D FKE

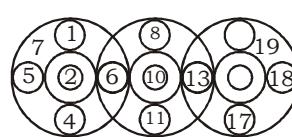


There are 17 circles.

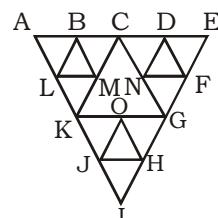
38. (c)



39. (b)



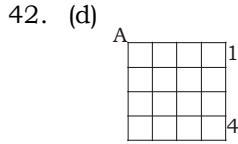
40. (d)



The triangles are:-

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

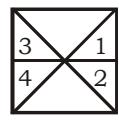
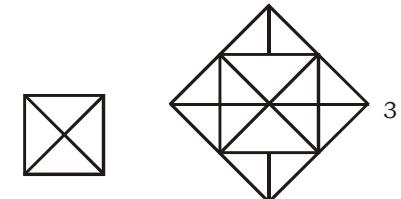
41. (a) The TRIANGLES ARE:
D ADE ; D DBG ; D DGH; D HDE
D HEF ; D EFC ; D HGF; D DEG
D DGF; D EFG; D DEF; D ECG
D DBF ; D ABC



According to Formula

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

43. (b)



$= 8 \text{ Triangle}$

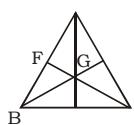
Then $= 8 + 4 = 12$
Triangle

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

Extra = 4

Total = $12 + 12 + 4 = \mathbf{28}$
Triangle

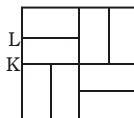
44. (a)



Triangle = D ABC, D ABE,
D ACE, D ABD, D ACF, D ABD,
D BCD, D AFG, D ADG, D BFG,
D BEG, D CEG, D CDG, D ACG,

D ABG, D BCG = **16**

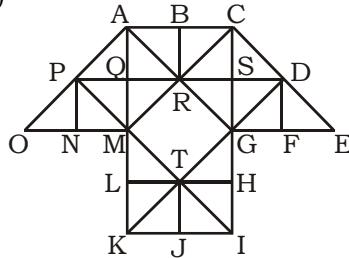
45. (c)



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

Thus, there are 21 rectangles.

46. (d)



The simplest triangles are:

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

The triangles composed of two components are:

D PON; D PMA ; D APR ; D RAM;
D RAC; D RAC; D RGC ; D DGC
D DGE; D MPR ; D GRD ; D DCR;
D TMK; D TKI; D TIG

The triangles composed of four components are:

D AMO; D AMC; D CAG; D CGE
D MKI; D GIK

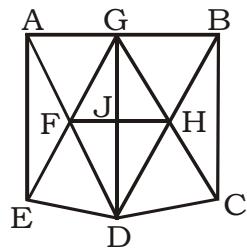
Other triangles are

D SPI ; D DQK, PDT

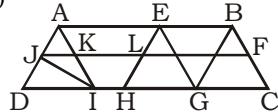
Total number of triangles

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

47. (a)

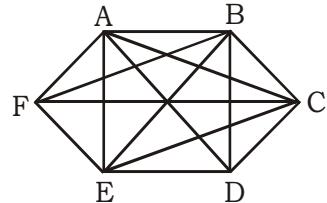


48. (d)



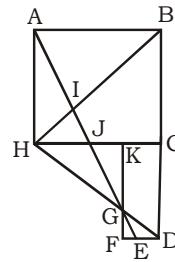
The triangles are : ADI, AJK, DIJ, IJK, EGH, ELM, GMN, GBE, BFN, BCG, JAI

49. (c)



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

50. (c)

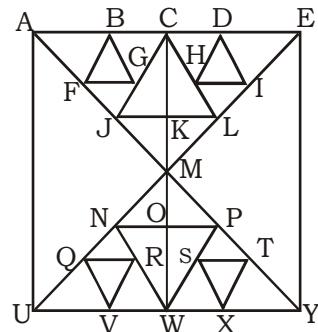


The triangles are :

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

Thus there are 15 triangles.

51. (d)

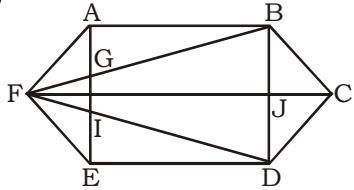


The triangles are:

D AFB ; D BFG; D GBC; D CKJ
D JGF; D KMJ; D JCM ; D ACJ
D ACM; D HCD ; D DIH ; D IDE
D CKL ; D LHI ; D LKM ; D LCM
D CLE ; D CME; D MON; D WON
D RVW; D QUV; D NRQ ; D NUW

D MNW; D MWU; D VRQ; D MOP
D OPQ ; D SWX ; D XTS ; D TXY
D PST ; D PMW; D PWY; D MWY
D CJL; D MAE; D MAU ; D MEY
D MUJ; D WPN; D AEU; D EAY
D EYU ; D AUJ ; D MLJ ; D MPN

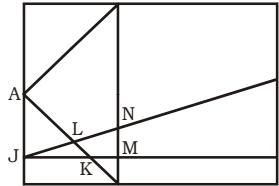
52. (d)



The triangles are:

D AGF; D GHF; D FIH ; D FIE
D AFH; D AIF; D FEA; D FIG
D FEG ; D FEH; D BAG ; D BJJG
D CDJ ; D CBD; D DEI; D AFB
D DEF; D FJB; D FCB ; D FCD
D FJD; D FBD

53. (c)

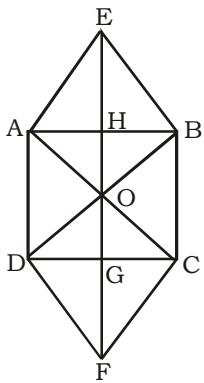


The no. of triangles:

ACH, ACB, AIH, AJK, KMH, ALJ, JK, NJM, JEF, NHL

Thus, there are 10 triangles in this image.

54. (b)



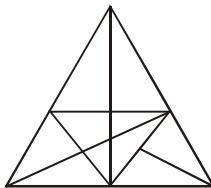
D MNW; D MWU; D VRQ; D MOP
D OPQ ; D SWX ; D XTS ; D TXY
D PST ; D PMW; D PWY; D MWY
D CJL; D MAE; D MAU ; D MEY
D MUJ; D WPN; D AEU; D EAY
D EYU ; D AUJ ; D MLJ ; D MPN

No. of triangles:

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

Thus, there are 22 triangles in this image.

55. (c)

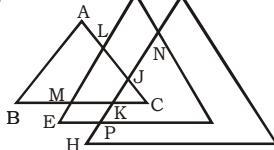


Triangles are:

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

There are 28 triangles in the given figure.

56. (c)

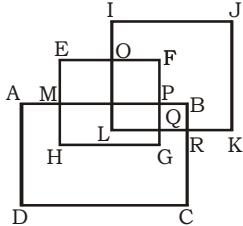


Triangles:

ABC, DEF, GHI, JKC, LMC, NPF

Thus, there are 6 triangles in given figure.

57. (c)

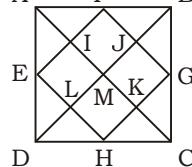


The rectangles are:

ABCD, EFGH, IJKL, EONM, OFPN, OJQL, NPQL, NBRL, PBRQ, MPGQ, EFPM.

Thus, there are 11 rectangles in this figure.

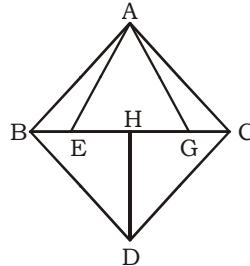
58. (a)



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

Thus, total no. of triangles are 20.

59. (b)

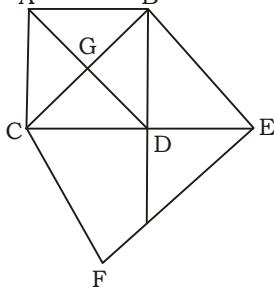


The triangles are:

ABE, ABG, ABC, AEG, AEC, AGC, BDC, BFD, CFD.

Thus, there are 9 triangles in the given figure.

60. (c)



The no. of triangles:

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

Thus, there are 15 triangles in this figure.