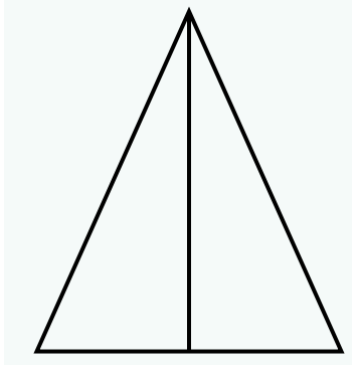


COUNTING FIGURES

Before moving on to the practice questions let us have a look at some of the tricks important for the counting of triangles, rectangles and squares, that would be very helpful in solving the questions and will make them easy.

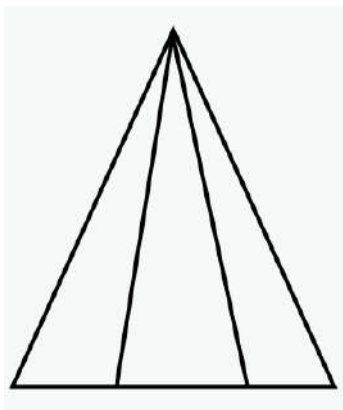
TRICKS FOR TRIANGLES

ADDITION OF DIVIDED PARTS



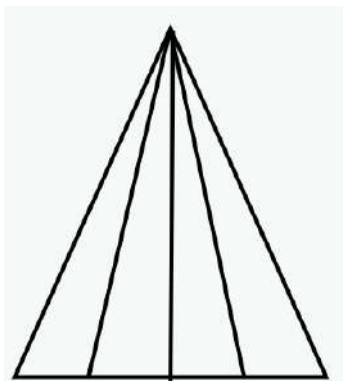
$$= 1+2$$

$$= 3$$



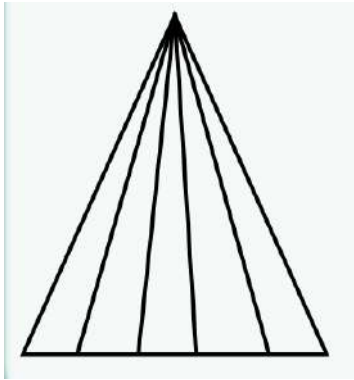
$$= 1+2+3$$

$$= 6$$



$$= 1+2+3+4$$

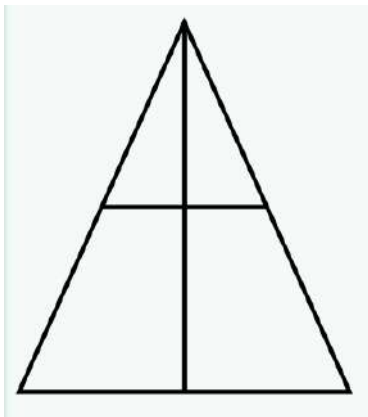
$$= 10$$



$$= 1+2+3+4+5$$

$$= 15$$

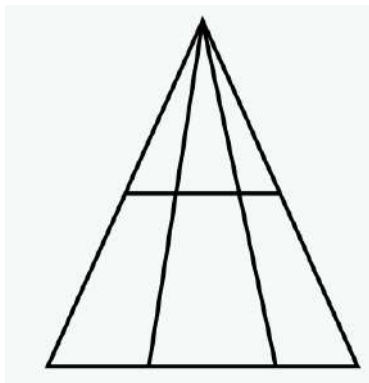
WHEN PARTS ARE DIVIDED IN PARTS



$$= (1+2) \times 2$$

$$= 3 \times 2$$

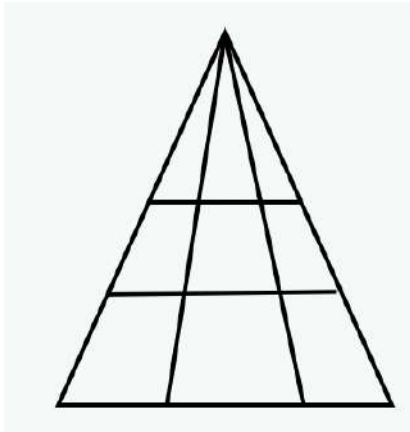
$$= 6$$



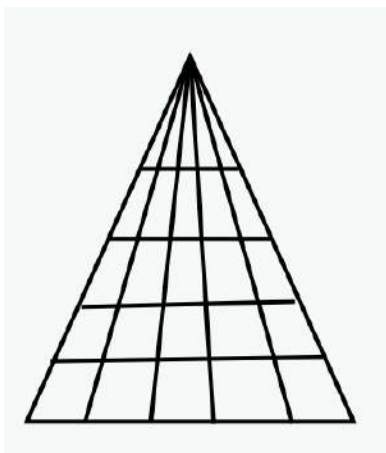
$$= (1+2+3) \times 2$$

$$= 6 \times 2$$

$$= 12$$



$$\begin{aligned}
 &= (1+2+3) \times 3 \\
 &= 6 \times 3 \\
 &= 18
 \end{aligned}$$



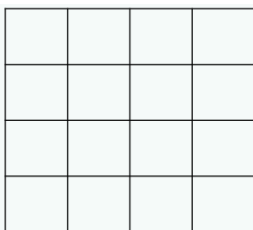
$$\begin{aligned}
 &= (1+2+3+4+5) \times 5 \\
 &= 15 \times 5 \\
 &= 75
 \end{aligned}$$

TRICKS FOR COUNTING SQUARES

- When row is equal to column.
- When row is not equal to column.

SQUARE

When row = column

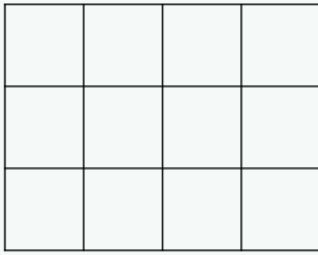


$$R = 4$$

$$C = 4$$

$$1^2 + 2^2 + 3^2 + 4^2 = 30$$

When row $\neq$ column



$$R = 3$$

$$C = 4$$

$$= (4 \times 3) + (3 \times 2) + (2 \times 1)$$

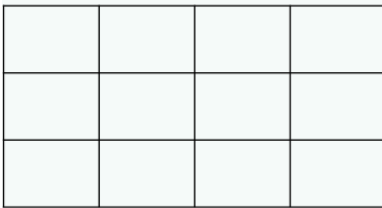
$$= 12 + 6 + 2$$

$$= 20$$

TRICKS FOR COUNTING RECTANGLES

- When Row = Column
- When Row $\neq$ Column

When Row $\neq$ column



$$R = 3$$

$$C = 4$$

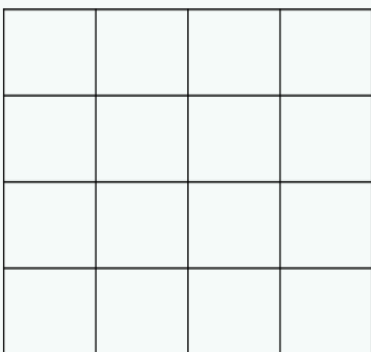
$$= \text{row} \times \text{column}$$

$$= (1+2+3) \times (1+2+3+4)$$

$$= 6 \times 10$$

$$= 60$$

When Row = Column



$$R = 4$$

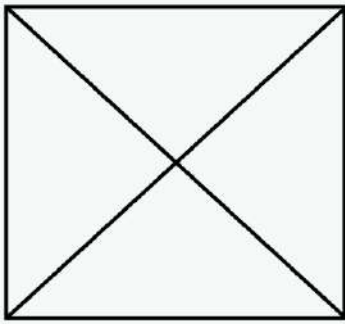
$$C = 4$$

$$= \text{row} \times \text{column}$$

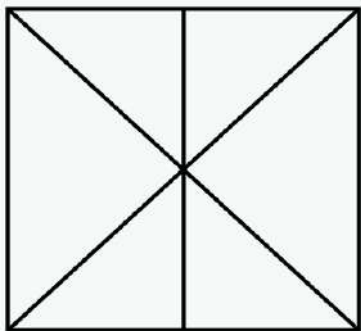
$$= (1+2+3+4) \times (1+2+3+4)$$

$$\Rightarrow 10 \times 10 = 100$$

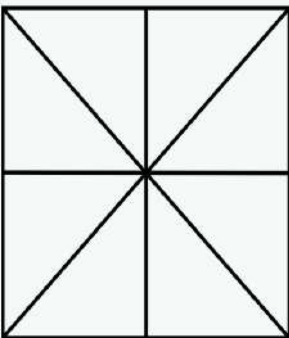
HOW MANY TRIANGLES



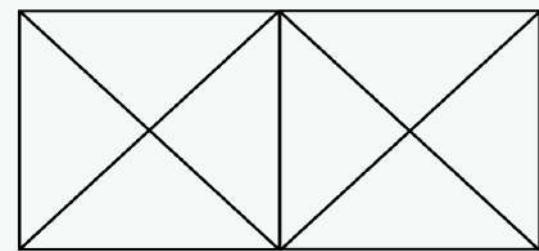
$$4 \times 2 = 8$$



$$6 \times 2 = 12$$



$$8 \times 2 = 16$$

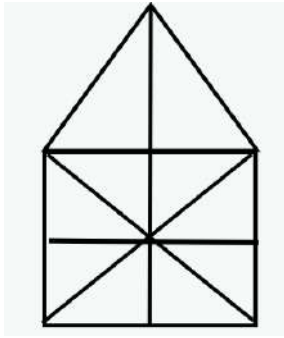


$$= (4 \times 2) + (4 \times 2)$$

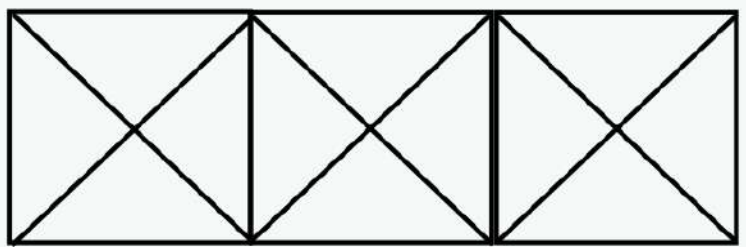
$$= 8 + 8$$

$$= 16 + (2)$$

$$= 18$$



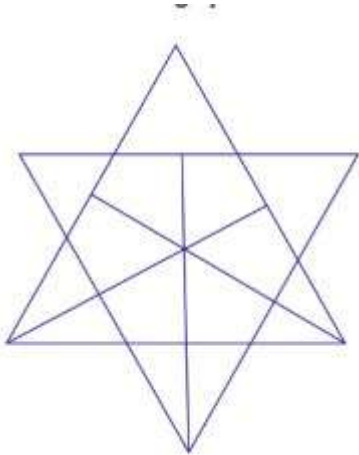
$$\begin{aligned}
 &= (8 \times 2) + (1 \times 2) \\
 &= 16 + 3 \\
 &= 19 + (2) \\
 &= 21
 \end{aligned}$$



$$\begin{aligned}
 &= (4 \times 2) + (4 \times 2) + (4 \times 2) \\
 &= 8 + 8 + 8 \\
 &= 24 + 4 \\
 &= 28
 \end{aligned}$$

50 Important Counting Figures Practice Questions

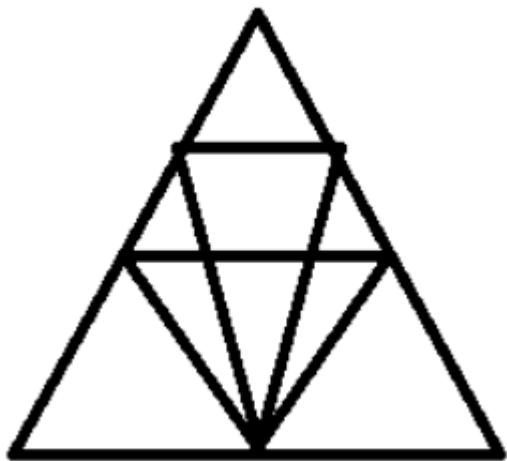
Q1) In the following question number of triangles are



- (a) 21
- (b) 23
- (c) 25
- (d) 27

Correct Answer: "d"

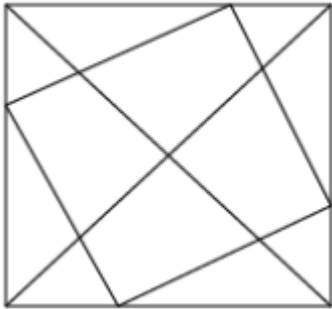
Q2) Find the number of triangles in the given figure



- (a) 12
- (b) 18
- (c) 22
- (d) 26

Correct Answer: "b"

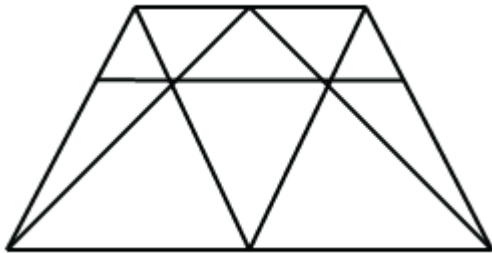
Q3) How many triangles are there in the given figure?



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

Correct Answer: "a"

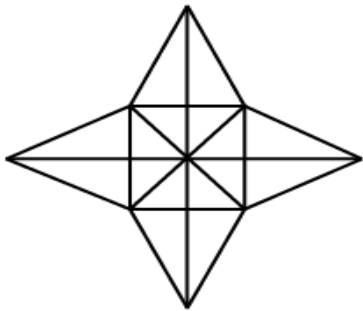
Q4) How many triangles are there in the given figure?



- (a) 18
- (b) 19
- (c) 20
- (d) 21

Correct Answer: "c"

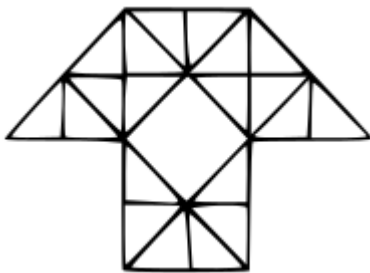
Q5) How many triangles are there in the given figure?



- (a) 28
- (b) 36
- (c) 40
- (d) 48

Correct Answer: "b"

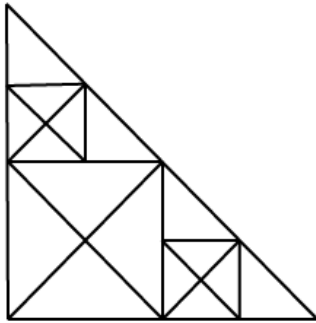
Q6) How many triangles are there in the given figure?



- (a) 29
- (b) 38
- (c) 40
- (d) 35

Correct Answer: "c"

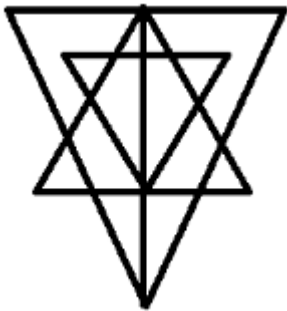
Q7) How many triangles are there in the given figure?



- (a) 32
- (b) 34
- (c) 37
- (d) 40

Correct Answer: "c"

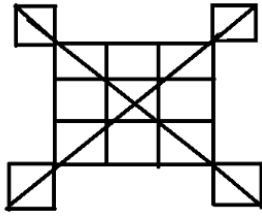
Q8) Find the number of triangles in the given figure?



- (a) 27
- (b) 25
- (c) 23
- (d) 21

Correct Answer: "a"

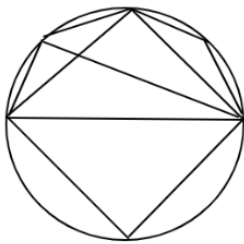
Q9) How many triangles are there in the given figure?



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

Correct Answer: "c"

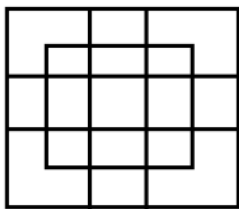
Q10) How many triangles are there in the figure?



- (a) 10
- (b) 8
- (c) 12
- (d) 11

Correct Answer: "a"

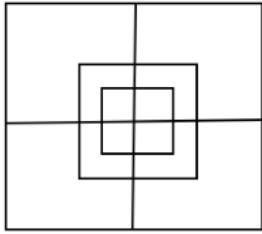
Q11) How many triangles are there in the given figure?



- (a) 16
- (b) 18
- (c) 25
- (d) 27

Correct Answer: "d"

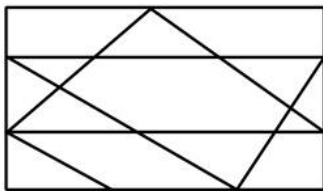
Q12) Find the number of squares?



- (a) 13
- (b) 14
- (c) 15
- (d) 16

Correct Answer: "d"

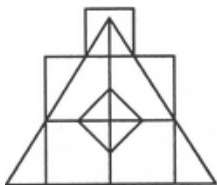
Q13) How many triangles are there in the given figure?



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

Correct Answer: "d"

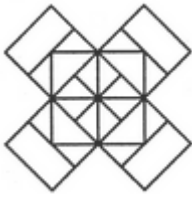
Q14) Count the number of triangles and square in the given figure?



- (a) 21 triangles, 7 squares
- (b) 18 triangles, 8 squares
- (c) 20 triangles, 8 squares
- (d) 22 triangles, 7 square

Correct Answer: "a"

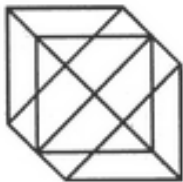
Q15) Count the number of squares in the given figure.



- (a) 22
- (b) 20
- (c) 18
- (d) 24

Correct Answer: "c"

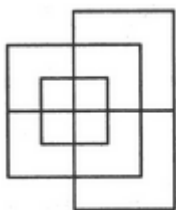
Q16) Find the number of triangles in the given figure.



- (a) 18
- (b) 20
- (c) 24
- (d) 27

Correct Answer: "c"

Q17) Find the minimum number of straight lines required to make the given figure.



- (a) 13
- (b) 15
- (c) 17
- (d) 19

Correct Answer: "a"

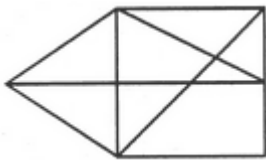
Q18) Find the number of triangles in the given figure.



- (a) 11
- (b) 13
- (c) 15
- (d) 17

Correct Answer: "c"

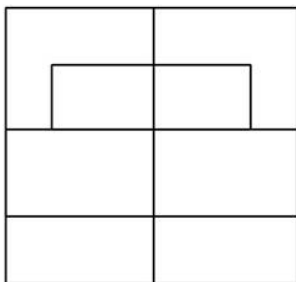
Q19) Find the number of triangles in the given figure.



- (a) 12
- (b) 13
- (c) 14
- (d) 15

Correct Answer: "d"

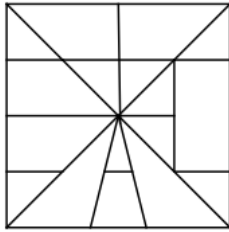
Q20) Find the number of squares/ rectangles from the given figure.



- (a) 36
- (b) 26
- (c) 21
- (d) 38

Correct Answer: "c"

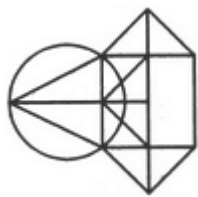
Q21) How many triangles are there in the given figure?



- (a) 29
- (b) 28
- (c) 31
- (d) 32

Correct Answer: "c"

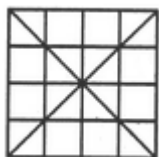
Q22) Find the number the triangles in the given figure.



- (a) 10
- (b) 12
- (c) 14
- (d) 18

Correct Answer: "c"

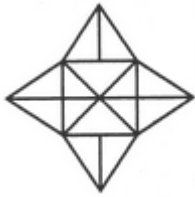
Q23) Find the number of triangles in the given figure.



- (a) 36
- (b) 40
- (c) 44
- (d) 48

Correct Answer: "d"

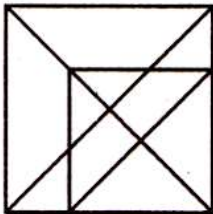
Q24) Find the number of triangles in the given figure.



- (a) 18
- (b) 20
- (c) 28
- (d) 34

Correct Answer: "c"

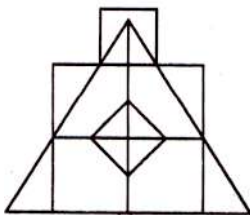
Q25) Find the number of triangles in the given figure.



- (a) 16
- (b) 18
- (c) 20
- (d) 21

Correct Answer: "d"

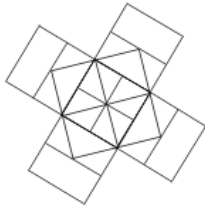
Q26) Find the number of triangles and squares in the given figure.



- (a) 21 triangles, 7 squares
- (b) 18 triangles, 8 squares
- (c) 20 triangles, 8 squares
- (d) 22 triangles, 7 squares

Correct Answer: "a"

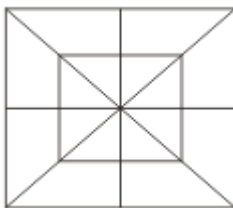
Q27) Count the number of squares in the figure.



- (a) 22
- (b) 20
- (c) 18
- (d) 14

Correct Answer: "c"

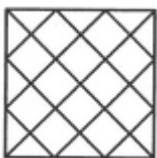
Q28) Count the number of triangles and squares in the given figure.



- (a) 28 triangles, 10 squares
- (b) 28 triangles, 8 squares
- (c) 32 triangles, 10 squares
- (d) 32 triangles, 8 squares

Correct Answer: "c"

Q29) Find the number of triangles in the given figure.



- (a) 28
- (b) 32
- (c) 36
- (d) 40

Correct Answer: "c"

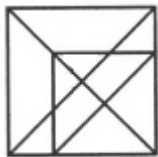
Q30) Find the number of triangles in the given figure.



- (a) 27
- (b) 25
- (c) 23
- (d) 21

Correct Answer: "a"

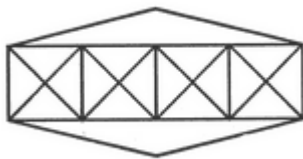
Q31) Find the number of triangles in the given figure.



- (a) 16
- (b) 18
- (c) 19
- (d) 21

Correct Answer: "d"

Q32) Count the number of triangles and squares in the given figure.



- (a) 36 triangles, 7 squares
- (b) 38 triangles, 9 squares
- (c) 40 triangles, 7 squares
- (d) 42 triangles, 9 squares

Correct Answer: "c"

Q33) What is the minimum number of different colours required to paint the given figure such that no two adjacent regions have the same colour?



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

Correct Answer: "a"

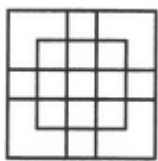
Q34) How many triangles and parallelograms are there in the following figure?



- (a) 21, 17
- (b) 19, 13
- (c) 21, 15
- (d) 19, 17

Correct Answer: "a"

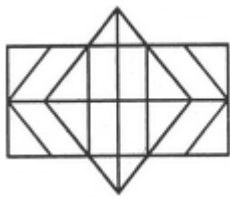
Q35) Count the number of squares in the given figure.



- (a) 18
- (b) 19
- (c) 25
- (d) 27

Correct Answer: "d"

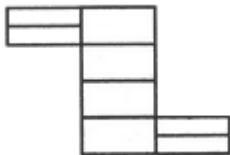
Q36) Determine the number of rectangles and hexagons in the given figure.



- (a) 30, 5
- (b) 32, 3
- (c) 28, 5
- (d) 30, 3

Correct Answer: "a"

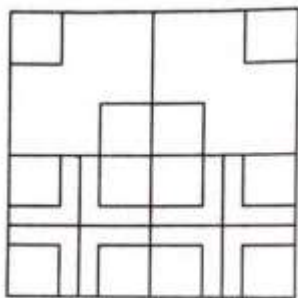
Q37) Count the number of rectangles in the given figure.



- (a) 8
- (b) 17
- (c) 18
- (d) 20

Correct Answer: "c"

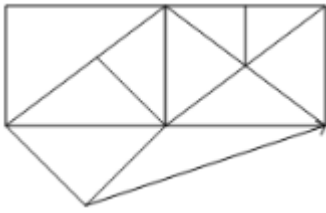
Q38) How many squares are there in this figure?



- (a) 24
- (b) 23
- (c) 27
- (d) 26

Correct Answer: "c"

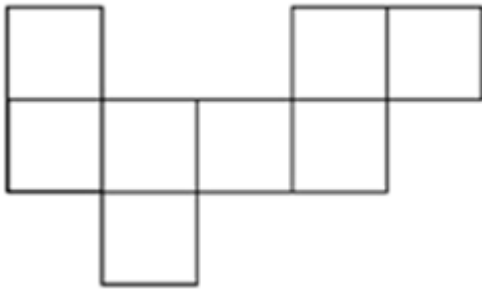
Q39) How many triangles are there in the given figure.



- (a) 10
- (b) 16
- (c) 18
- (d) 19 or more

Correct Answer: "d"

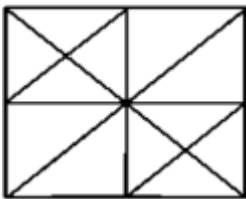
Q40) How many rectangles can you see in the figure?



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

Correct Answer: "a"

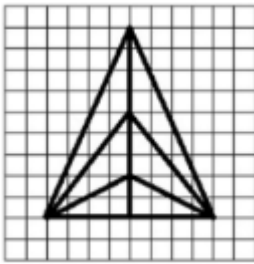
Q41) How many squares are there in the following figure?



- (a) 12
- (b) 20
- (c) 24
- (d) 28

Correct Answer: "d"

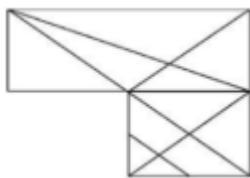
Q42) Find the number of triangles in the figures.



- (a) 14
- (b) 15
- (c) 16
- (d) 20

Correct Answer: "b"

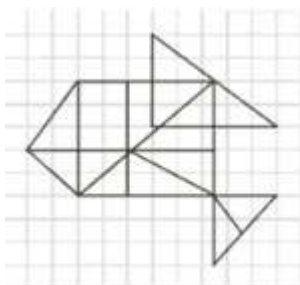
Q43) How many triangles can be found out of the following figure?



- (a) 17
- (b) 21
- (c) 24
- (d) 25

Correct Answer: "d"

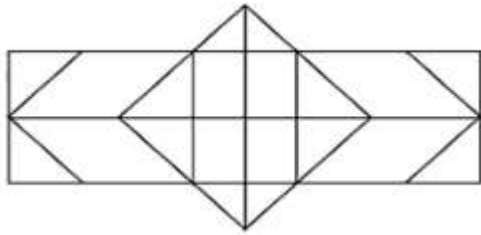
Q44) How many triangles are there in the given figure?



- (a) 16
- (b) 23
- (c) 26
- (d) 31

Correct Answer: "d"

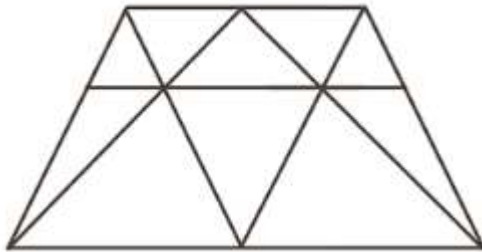
Q45) How many rectangles are there in the given figure?



- (a) 8
- (b) 15
- (c) 24
- (d) 30

Correct Answer: "D"

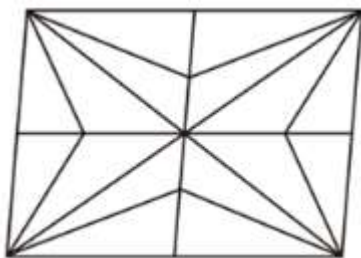
Q46) How many triangles are there in the given figure.



- (a) 18
- (b) 19
- (c) 20
- (d) 21

Correct Answer: "a"

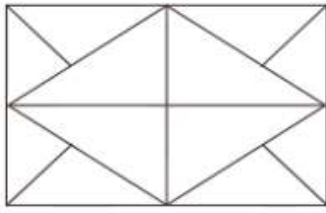
Q47) How many triangles are there in the given figure?



- (a) 24
- (b) 28
- (c) 36
- (d) 32

Correct Answer: "c"

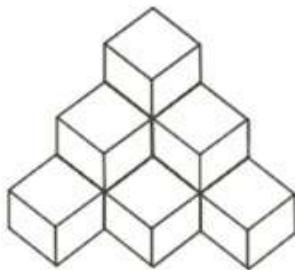
Q48) How many triangles are there in the following figure?



- (a) 12
- (b) 16
- (c) 10
- (d) 20

Correct Answer: "d"

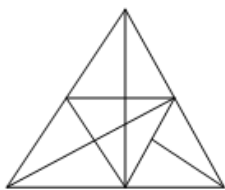
Q49) How many cubes are there in the diagram?



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

Correct Answer: "a"

Q50) How many triangles are there in the given figure?



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

Correct Answer: "d"

FIGURE COUNTING (FOR PRACTICE)

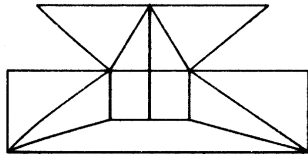
FIGURE COUNTING

These types of non-verbal reasoning involve counting geometrical figures in a given figure, which is a mixture of two or more types of complex figures. Such types of questions are designed to test the analytical disposition of the candidates. These may be straight lines, triangles, rectangles and other geometrical figures/designs.

MORE QUESTIONS BASED ON FIGURES COUNTING

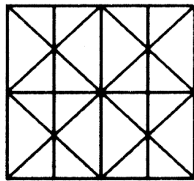
Q.1-4. In each of the following questions, find the minimum number of straight lines required to make the given figure.

Q.1.



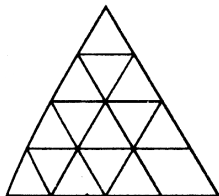
- (A) 16 (B) 17
(C) 18 (D) 19

Q.2.



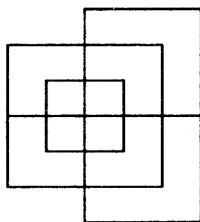
- (A) 11 (B) 14
(C) 16 (D) 17

Q.3.



- (A) 9 (B) 11
(C) 15 (D) 16

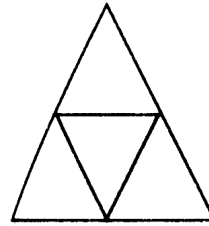
Q.4.



- (A) 13 (B) 15
(C) 17 (D) 19

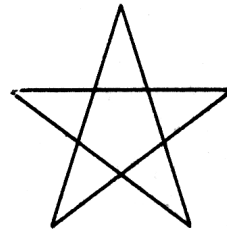
Q.5-29. In each of the following questions, find the number of triangles in the given figure.

Q.5.



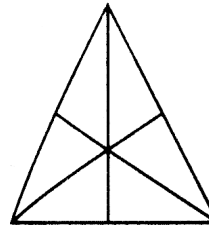
- (A) 4 (B) 5
(C) 6 (D) 7

Q.6.



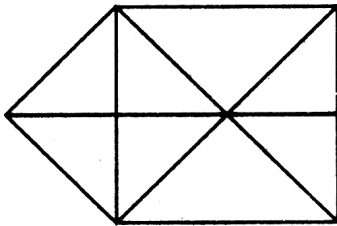
- (A) 5 (B) 6
(C) 8 (D) 10

Q.7.



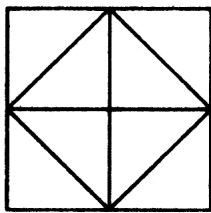
- (A) 16 (B) 13
(C) 9 (D) 7

Q.8.



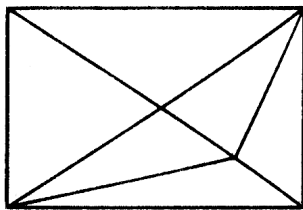
- (A) 15 (B) 16
(C) 17 (D) 18

Q.9.



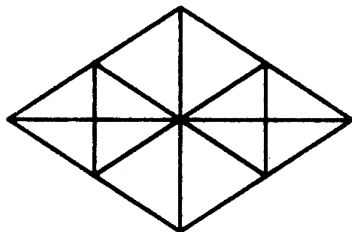
- (A) 8 (B) 10
(C) 12 (D) 14

Q.10.



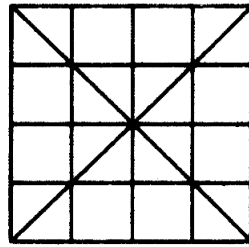
- (A) 11 (B) 13
(C) 15 (D) 17

Q.11.



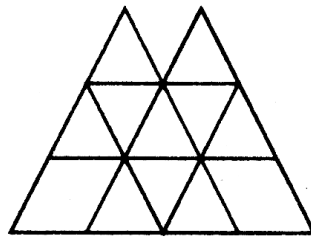
- (A) 16 (B) 22
(C) 28 (D) 32

Q.12.



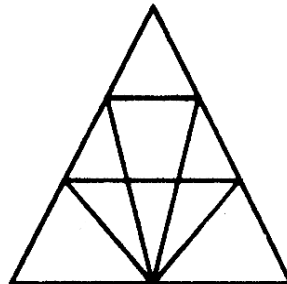
- (A) 36 (B) 40
(C) 44 (D) 48

Q.13.



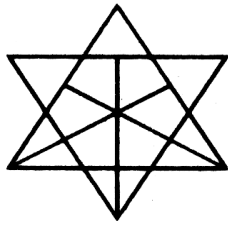
- (A) 16 (B) 18
(C) 14 (D) 15

Q.14.



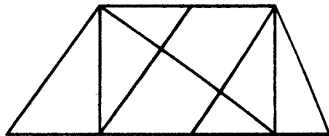
- (A) 12 (B) 18
(C) 22 (D) 26

Q.15.



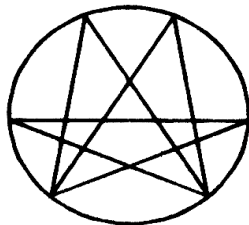
- (A) 21 (B) 23
(C) 25 (D) 27

Q.16.



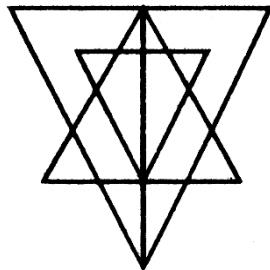
- (A) 8 (B) 10
(C) 12 (D) 14

Q.17.



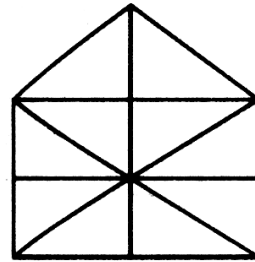
- (A) 22 (B) 24
(C) 26 (D) 28

Q.18.



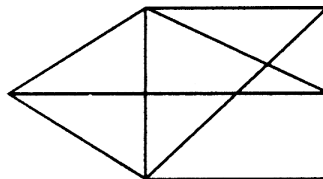
- (A) 27 (B) 25
(C) 23 (D) 21

Q.19.



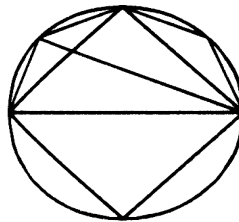
- (A) 10 (B) 19
(C) 21 (D) 23

Q.20.



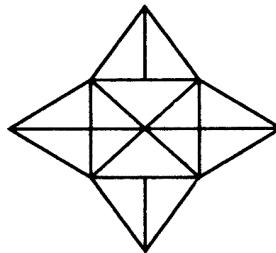
- (A) 12 (B) 13
(C) 14 (D) 15

Q.21.



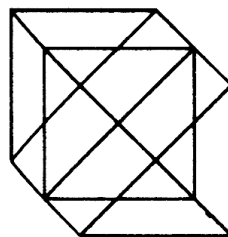
- (A) 8 (B) 10
(C) 11 (D) 12

Q.22.



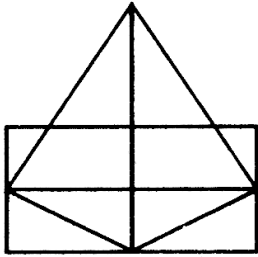
- (A) 18 (B) 20
(C) 28 (D) 34

Q.23.



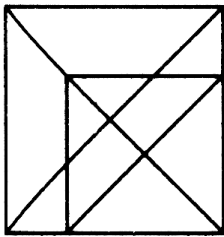
- (A) 18 (B) 20
(C) 24 (D) 27

Q.24.



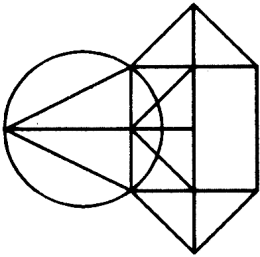
- (A) 11 (B) 13
(C) 15 (D) 17

Q.25.



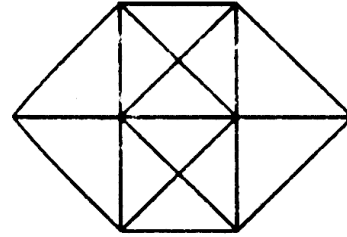
- (A) 16 (B) 18
(C) 19 (D) 21

Q.26.



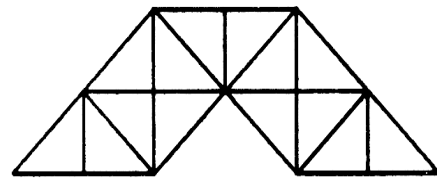
- (A) 10 (B) 12
(C) 14 (D) 16

Q.27.



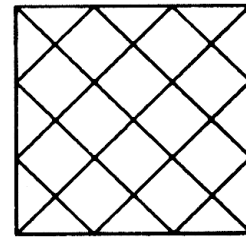
- (A) 20 (B) 24
(C) 28 (D) 32

Q.28.



- (A) 23 (B) 27
(C) 29 (D) 31

Q.29.

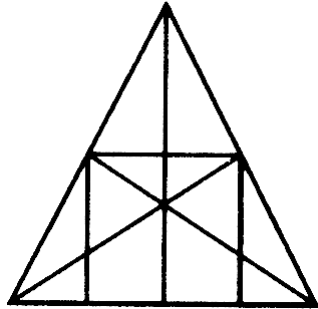


- (A) 28 (B) 32
(C) 36 (D) 40

Q.30. What is the number of triangle that can be formed whose vertices are the vertices of an octagon but have only one side common with that of the octagon?

- (A) 64 (B) 32
(C) 24 (D) 16

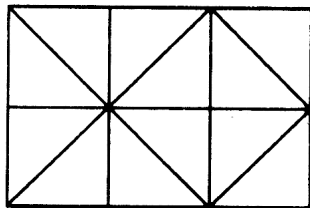
Q.31. What is the number of straight lines and the number of triangles in the given figures?



- (A) 10 straight lines and 34 triangles
(B) 9 straight lines and 34 triangles
(C) 9 straight lines and 36 triangles
(D) 10 straight lines and 36 triangles

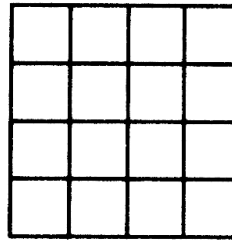
Q.32-39. In each of the following questions count the number of squares in the given figure

Q.32.



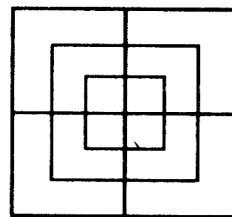
- (A) 6 (B) 7
(C) 9 (D) 10

Q.33.



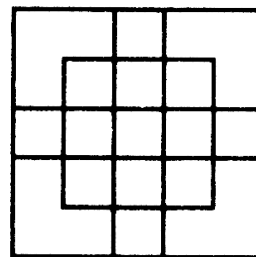
- (A) 32 (B) 30
(C) 29 (D) 28

Q.34.



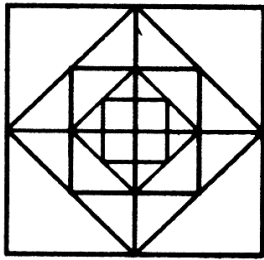
- (A) 8 (B) 12
(C) 15 (D) 18

Q.35.



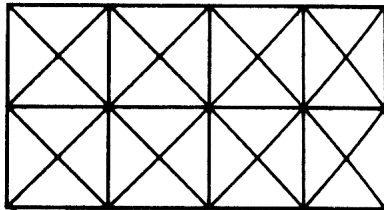
- (A) 18 (B) 19
(C) 25 (D) 27

Q.36.



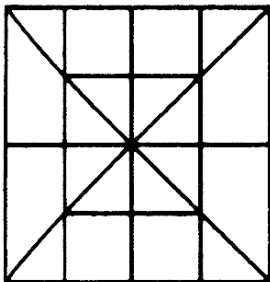
- (A) 12 (B) 13
(C) 16 (D) 17

Q.37.



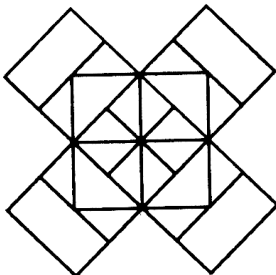
- (A) 11 (B) 21
(C) 24 (D) 28

Q.38.



- (A) 13 (B) 16
(C) 19 (D) 20

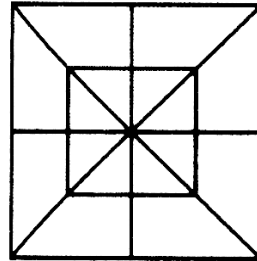
Q.39.



- (A) 22 (B) 20
(C) 18 (D) 14

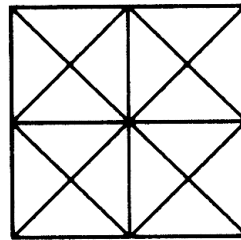
Q.40-45. In each of the following questions, count the number of triangles and squares in the given figure.

Q.40.



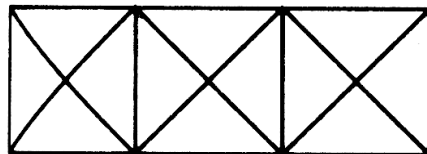
- (A) 28 triangles, 10 squares
(B) 28 triangles, 8 squares
(C) 32 triangles, 10 squares
(D) 32 triangles, 8 squares

Q.41.



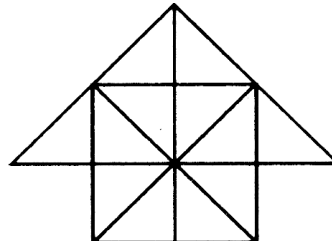
- (A) 44 triangles, 10 squares
(B) 14 triangles, 16 squares
(C) 27 triangles, 6 squares
(D) 36 triangles, 9 squares

Q.42.



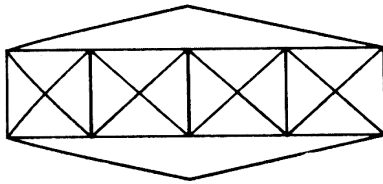
- (A) 28 triangles, 3 squares
(B) 24 triangles, 5 squares
(C) 28 triangles, 5 squares
(D) 24 triangles, 3 squares

Q.43.



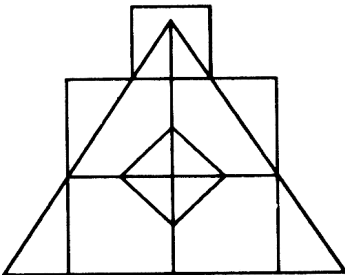
- (A) 26 triangles, 5 squares
(B) 28 triangles, 5 squares
(C) 26 triangles, 6 squares
(D) 28 triangles, 6 squares

Q.44.



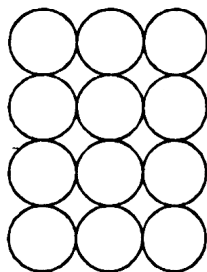
- (A) 36 triangles, 7 squares
- (B) 38 triangles, 9 squares
- (C) 40 triangles, 7 squares
- (D) 42 triangles, 9 squares

Q.45.



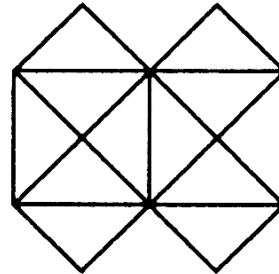
- (A) 21 triangles, 7 squares
- (B) 18 triangles, 8 squares
- (C) 20 triangles, 8 squares
- (D) 22 triangles, 7 squares

Q.46. In the adjoining figure, if the centres of all the circles are joined by horizontal and vertical lines, then find the number of squares that can be formed.



- (A) 6
- (B) 7
- (C) 8
- (D) 1

Q.47-49. Study the following figure and answer the given questions based on this figure.



Q.47. What is the minimum number of straight lines that are needed to construct the figure?

- (A) 11
- (B) 13
- (C) 15
- (D) 21

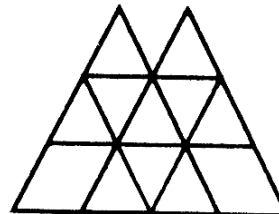
Q.48. Count the number of triangles in the figure.

- (A) 12
- (B) 20
- (C) 22
- (D) 24

Q.49. How many squares does the figure contain?

- (A) 5
- (B) 6
- (C) 7
- (D) 8

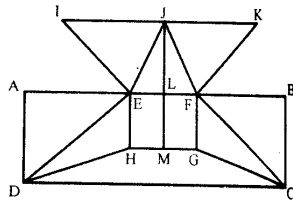
Q.50. How many parallel quadrilaterals are in the given figure?



- (A) 23
- (B) 22
- (C) 21
- (D) 18

EXPLANATION

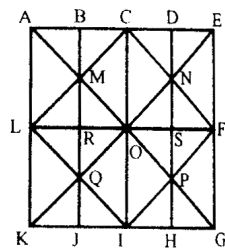
- Q.1.(B) Straight lines should be.....
 IK, AB, HG, DC
 AD, EH, JM, FG, BC
 IE, JE, JF, KF, DE, DH, FC GC



Ans. fig. - 1

So, there are 17 straight lines in the figure above.

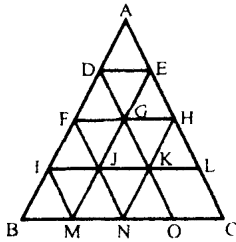
- Q.2.(B) AK, BJ, CI, DH, EG
 AE, LF, KG
 LC, CF, FI, LI, EK, AG



Ans. fig. - 2

So, there are 14 straight lines in the figure above.

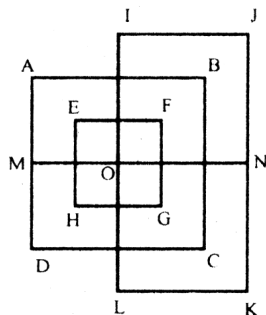
- Q.3.(B) DE, FH, IL, BC, AC, DO, FN, IM, AB, EM, HN



Ans. Fig - 3

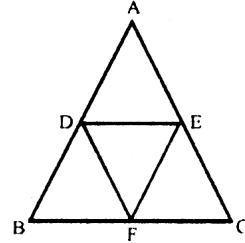
So, there are 11 straight lines in the figure above.

- Q.4.(A) IJ, AB, EF, MN, HG, DC, LK, AD, EH, IL, FG,
 BC, JK



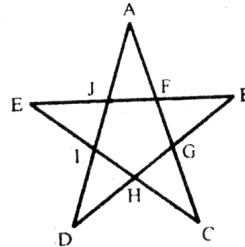
So, there are 13 straight lines in the figure above.

- Q.5.(B) ADE, BDF, DEF, EFC, ABC



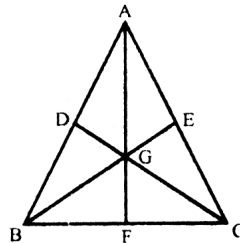
So the above figure has 5 triangles.

- Q.6.(D) AJF, FBG, GCH, HDI, IEJ, EBH, AIC, EFC,
 ADG, BJD



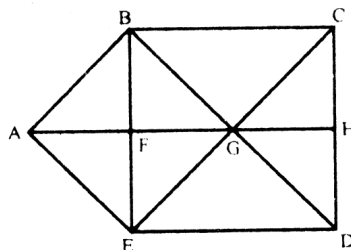
So the above figure has 10 triangles.

- Q.7.(A) AGE, EGG, GFC, BGF, DGB, ADG
 AGC, BGC, ABG, AFC, BEG, BDC, ABF, ABE,
 DAC, ABC.



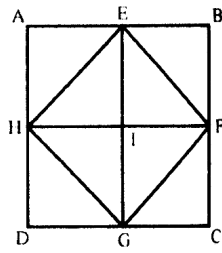
So the above figure has 16 triangles.

- Q.8.(C) ABF, BFG, BCG, CGH, GHD, GED, EFG, AFE.
 ABG, BGE, AGE, ABE, GCD, BCD, CDE, BED,
 BCE



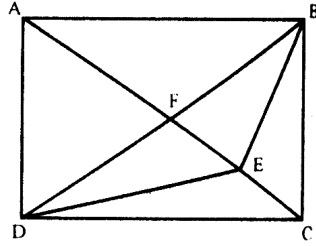
So the above figure has 17 triangles.

- Q.9.(C) AEH, EHI, EBF, EFI, FGC, IFG, DGH, HIG,
 HEF, EFG, HFG, EFG



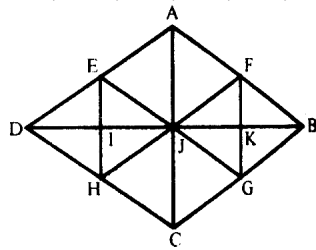
So the above figure has 12 triangles.

- Q.10.(C) AFB, FEE, EEC, DEC, DFE, AFD, AEB, FBC, DFC, ADE, DBE, ABD, ADC, ABC, DBC



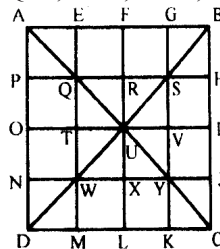
So the above figure has 15 triangles.

- Q.11.(C) AFJ, FJK, FKB, BKG, JKG, JGC, HJC, HIJ, DIH, DEI, EIJ, AEJ, JFB, FBG, BJG, JFG, DEJ, EJH, DJH, DEH, AJB, JBC, DJC, ADJ



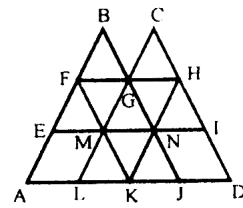
So the above figure has 28 triangles.

- Q.12.(D) APQ, AEQ, QTU, QRU, BGS, BHS, RSU, SUV, TUW, UWX, NWD, WDM, UVY, UXY, JCY, YKC, QUW, QSU, SYU, UWY, AOU, AFU, FBU, BIU, UIC, ULC, OLD, OUD, QYW, QSW, QSY, SYW, AGY, DSK, BJW



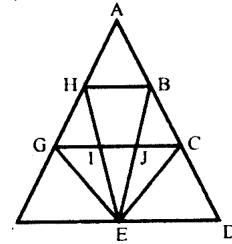
So the above figure has 48 triangles.

- Q.13.(B) BFG, CGH, EFM, FMG, GMN, GHN, HNI, LMK, MNK, KNJ, FAK, HKD, BEN, CMI, GLJ, FHK, BAJ, CLD



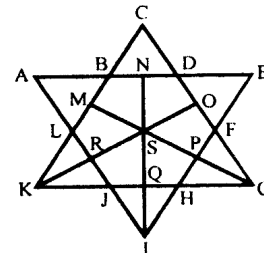
So the above figure has 18 triangles.

- Q.14.(B) AHB, GHI, BJC, GFE, GIE, IJE, CEJ, CDE, HEG, BEC, HBE, JGE, FHE, GCE, BED



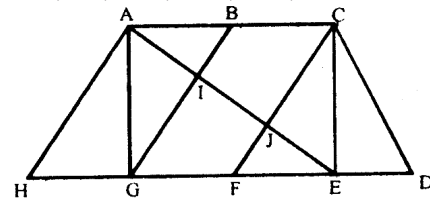
So the above figure has 18 triangles.

- Q.15.(D) ABL, BCD, DBF, FGP, PGH, QHI, JQI, KRJ, LRK, OSG, SGQ, SPI, SRI, KSQ, KMS, FGH, JHI, JKL, KSG, NEI, ANI, MCG, KCO, GMK, KOG, AEI, KCG



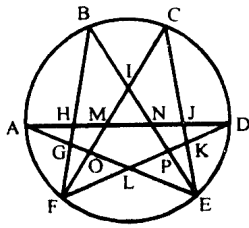
So the above figure has 27 triangles.

- Q.16.(D) AHG, AIG, AIB, JFE, CJE, CED, ABG, CFE, ACJ, EGI, ACE, AGE, CFD, AHE



So the above figure has 14 triangles.

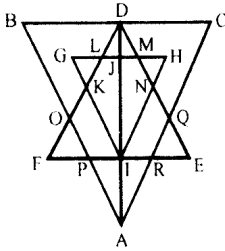
- Q.17.(D) AGH, GFO, LFO, DJK, EKP, PEL, IMN, GFL, KEL, AMO, NDP, BHN, CMJ, NEJ, HFM, IOE, IFP, BIF, CEI, ANE, DMF, FCK, BGE, ADL, BPF, COE, DHF, AJE



So the above figure has 21 triangles.

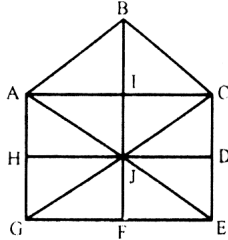
- Q.18.(A) GLK, DLJ, DJM, HMN, QRE, IRA, IPA, FPO, EDO, CDQ, DLM, PRA, KFI, NEI, HJI, GJI, OKI, DNI, DIE, DFI, DOA, DQA, GHI, DCA, DBA

DBF, ABC



So the above figure has 27 triangles.

- Q.19.(C) ABI, BIC, ALJ, CIJ, AHJ, CDJ, JHG, JDE, GJF, EJF, ABC, BCJ, ACJ, BAJ, AJG, CJE, GJE, ACG, ACE, CGE, AGE

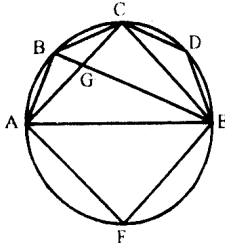


So the above figure has 21 triangles.

- Q.20.(D) ABF, BIC, CIH, GIH, FGE, AFE, ABE, AGE, BHf, BCH, CGH, BIE, ABH, BCE, CDE

So the above figure has 15 triangles.

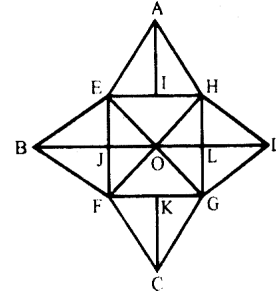
- Q.21.(B) ABG, BCG, CGE, CDE, AGE, AEF, ABE, ABC, BCE, ACE



So the above figure has 10 triangles.

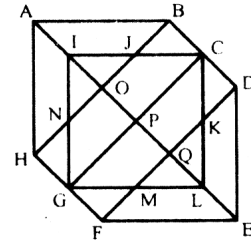
- Q.22.(C) AEI, AIH, BEJ, BJF, CFK, CKG, DGL, DLH, EOJ, FOJ, FOG, LOG, HOL, HOE, EAH, FEE, BEO, EOF, BFO, FCG, GDH, HOD, HOG,

GOD, EFH, EHG, FGH, EFG



So the above figure has 28 triangles.

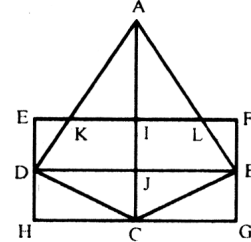
- Q.23.(C) IJO, BCJ, CDK, KQL, MLQ, GFM, GHN, NIO, ABO, AHO, NIJ, 1GP, ICP, DEQ, FEQ, KLM, LCP, LGP, HAB, DBF, LGI, GIC, ICL, CLG



So the above figure has 24 triangles.

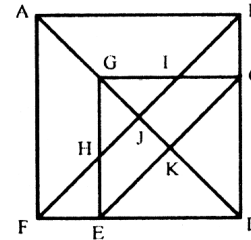
- Q.24.(C) AKI, AIU.EKD, LFB, DJC, BJC, DHC, BCG, AKL, ADJ, AJB, DBC

ADC, ABC, ADB



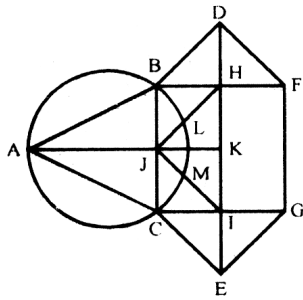
So the above figure has 15 triangles.

- Q.25.(D) EFH, BIG, GHJ, GIJ, EKD, CKD, ABJ, AFJ, GCK, GEK, CED, GHI, GCD, GED, DJB, DJF, ABF, GCE, ABD, AFD, FED



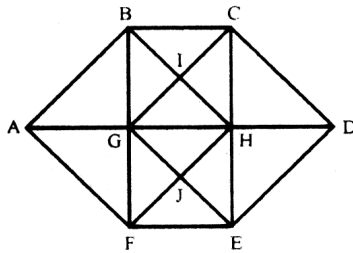
So the above figure has 21 triangles.

- Q.26.(C) ABJ, ACJ, BDH, DHF, CIE, GIE, ABC, BDF, CEG, BHJ, JHK, JKI, CJI



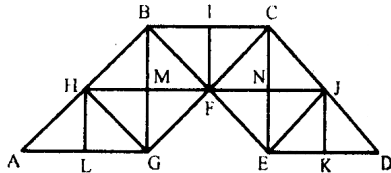
So the above figure has 14 triangles.

- Q.27.(C) ABG, BIG, BIG, CIH, GIH, CDH, RED, GHJ, HJE, FEJ, GFJ, AGF, ABF, CDE, GBC, BCH, CHG, BHG, GHF, GHE, HEF and GEF, ABH, AFH, CDG, GDE, BHF, CGE



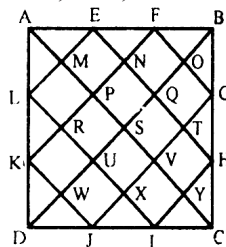
So the above figure has 28 triangles.

- Q.28.(C) AHL, LHG, GHM, HMB, GMF, BMF, BIF, CIF, FNC, CNJ, FNE, NEJ, EKJ, JKD, AGH, BHG, HBF, BFG, HFG, BCF, CJF, CJE, JEF, CFE, JED, ABG, CBG, BCE, CED



So the above figure has 29 triangles.

- Q.29.(C) AML, LRK, KWD, DWJ, JXI, IYC, CYH, HTG, GOB, EOF, FNE, EMA, AEL, KDJ, HIC, FBG, APF, EQB, BQH, GVC, CVJ, IUD, DUL, KPA, ASB, BSC, CSD, DSA, AKF, EBH, GCJ, IDL, ADB, ABC, BCD



So the above figure has 36 triangles.

- Q.30.(B) ABCDEFGH, ABD, ABE, ABF, ABG, BCE, BCF, BCG, BCH.

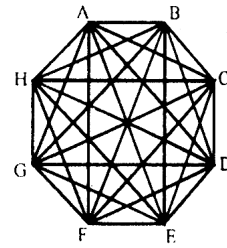


Fig. 1

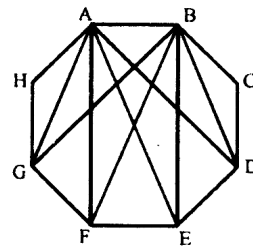


Fig. 2

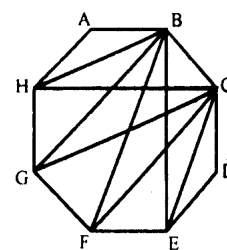


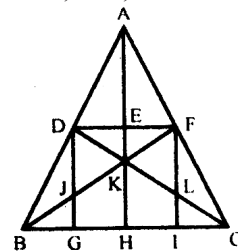
Fig. 3

So the above figure has 32 triangles.

- Q.31.(C) DE, BC, DG, AH, FI, AB, AC, BF DC

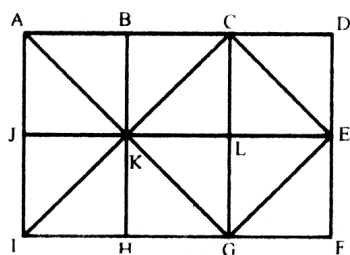
So there are 9 straight lines.

ADE, AEF, DEK, EFK, DJK, FLK, DJB, FLC, BJG, LIC, ADF, AFK, DFK, ADK, DKB, I FCK, BKH, KHC, DGB, FIC, DFJ, DFL, ABK, ACK, BFI, CDG, DFB, DFC, BKC, ABJ, ACH, ABF, ACD, BFC, CDB



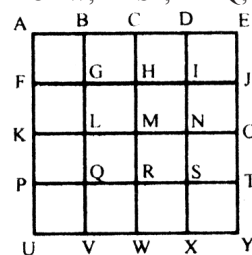
So the above figure has 36 triangles.

- Q.32.(C) ABKJ, BCLK, CDEL, LEFG, KLGH JKHI, CEGK, ACGI, BDFH



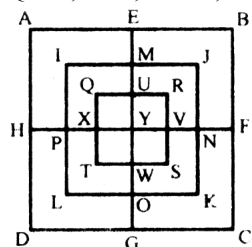
Hence the above figure has 9 squares.

- Q.33.(B) ABGF, BCHG, CDIH, DEJI, FGLK, GHML, HINM, IJON, KLQP, LMRQ, MNSR, NOTS, PQVU, QRWV, RSXW, STYX, ACMK, BDNL, CEOM, FHRP, GISQ, HJTR, KMWU, LNXV, MOYW, ADSP, BETQ, FIXU, GJYV, AEYU



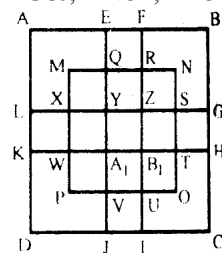
Hence the above figure has 30 squares.

- Q.34.(C) QUYYX, URSY, YVSW, XYWT, IMYP, MJNY, YNKO, PYOL, AEYH, EBFY, YFCG, HYGD, QRST, IJKL, ABCD,



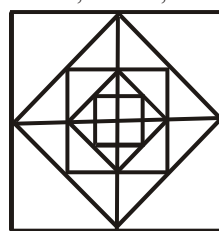
Hence the above figure has 15 squares.

- Q.35.(D) EFRQ, MQYX, QRZY, RNSZ, LXWK, XYA,W, YZBA, ZSTB, SGHT, WAVP, AUV, BTOU, VUIJ, AEYL, FBGZ, KAJD, BHCI, MRBW, QNTA XZUP, YSOV, AFB1K, EBHA, LZID, YGCJ, MNOP, ABCD.



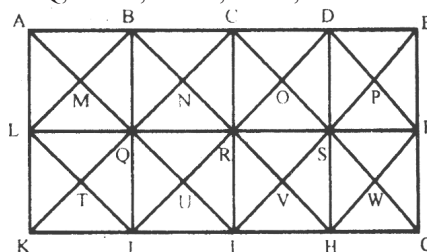
Hence the above figure has 27 squares.

- Q.36.(D) QVYU, VRWY, YWSX, UYXT, IMYP, MJNY, YN£O, PYOL, QRST, AEYH, EBFY, YFCG, HYGD, MNOP, IJKL, EFGH, ABCD



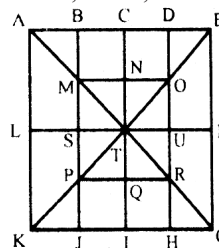
Hence the above figure has 17 squares.

- Q.37.(C) BNQM, CORN, DPSO, MQTL, NRUQ, OSVR, PFWS, QUIT, RVIU, SWHV, ABQL, BCRQ, CDSR, DBFS, LQJK, QRIJ, RSHI, SFGH, BRJL, CSIQ, DFHR, ACIK, BDHJ, CEGI



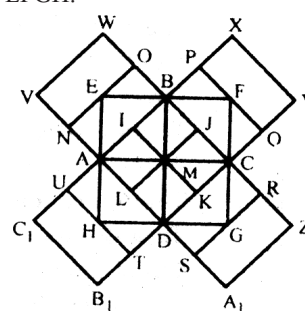
Hence the above figure has 24 squares.

- Q.38.(B) BCNM, CDON, PQIJ, QRHI, MNTS, NOUT, STQP, TURQ, ACTL, CEFT, TFGI, LTIK, BDUS, SUHJ, MORP, AEGK



Hence the above figure has 16 squares.

- Q.39.(C) BJMI, CKMJ, DLMK, AIML, EBMA, BFCM, MCGD, AMDH, VWBA, XYCB, ZAJDC, B,C,AD, NOJL, PQKI, RSLJ, TUIK, ABCD, EFGH.

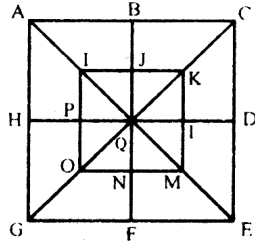


Hence the above figure has 18 squares.

- Q.40.(C) IJQ, JKQ, KLQ, LMQ, MNQ, NOQ, OPQ, PIQ, ABQ, BCQ, CDQ, DEQ, EFQ, FGQ, GHQ, HAQ, IKQ, KMQ, MOQ, OIQ, ACQ, CEQ, EGQ, GAQ, IKM, KMO, MOI, OIK, ACE, CEG, EGA, GAC

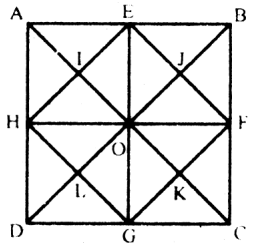
Total number of triangles in the figure 32.

UQP, JKLQ, QLMN, PQNO, ABQH, BCDQ, QDEF, HQFG, IKMO, ACEG



Hence the above figure has 10 squares.

- Q.41.(A) AEI, EOI, OHI, HAI, EBJ, BFJ, 1 FOJ, OEJ, HOL, OGL, GDL, DHL, OFK, FCK, CGK, GOK, HAE, AEO, EOH, OHA, OEB, EBF, BFO, FOE, DHO, HOG, OGD, GDH, GOF, OFC, FCG, CGO, HEF, EFG, FGH, GHE, ABO, BCO, CDO, DAO, DAB, ABC, BCD, CDA



So the above figure has 44 triangles.

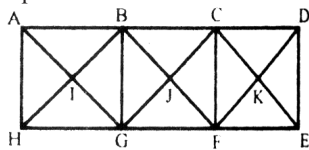
HIOL, IEJO, JFKO, KGLO, AEOH, EBFO, OFGC, HOGD, EFGH, ABCD

Hence the above figure has 10 squares.

- Q.42.(C) ABI, BGI, GHI, HAI, BCJ, CFJ, FGJ, GBJ, CDK, DEK, EFK, FCK, ABG, BGH, GHA, HAB, BCF, CFG, FGB, GBC, CDE, DBF, EFC, FGD, AGC, BFD, HBF, GCE

So the above figure has 28 triangles.

BJGI, CKFI, ABGH, BCFG, CDEF That is, 5 squares.



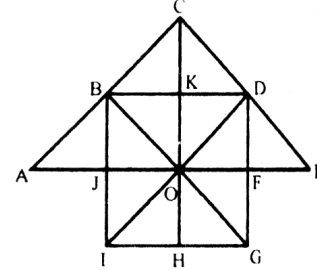
Hence the above figure has 5 squares.

- Q.43.(C) JBO, BKO, KDO, DFO, FGO, GHO, HIO, IJO,

ABJ, BCK, CKD, DBF, IBO, EDO, DGO, GIO, ABO, CBD, DEO, IBD, BDG, DGI, GIB, ACO, COE, ACE

So the above figure has 26 triangles.

BKOJ, KDFO, OFGH, JOHI, CDOB, BDGI,

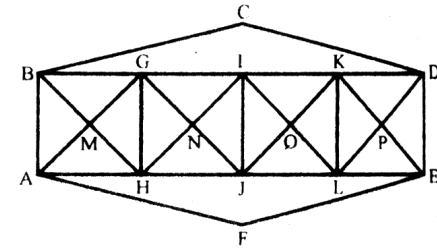


Hence the above figure has 6 squares.

- Q.44.(C) BGM, GHM, HAM, ABM, GIN, IJN, JHN, HGN, IKO, KLO, LJO, JIO, KDP, DEP, ELP, LKP, BCD, AFE, ABG, BGH, GHA, HAB, HGI, GIJ, IJH, JHG, JIK, IKL, KLJ, LJL, LKD, KDE, DEL, ELK, BHI, GJK, ILD, AGJ, HIL, JKE

So the above figure has 40 triangles.

MGNH, NIOJ, OKPL, GHA, GIJH, 1 KLJ, KDEL,

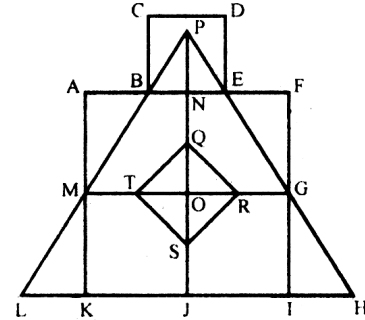


Hence the above figure has 7 squares.

- Q.45.(A) BPN, PNE, ABM, EFG, MLK, GHI, QRO, RSO, STO, QTO, BPE, TQR, QRS, RST, STQ, MPO, GPO, LPJ, HPJ, MPG

So the above figure has 21 triangles.

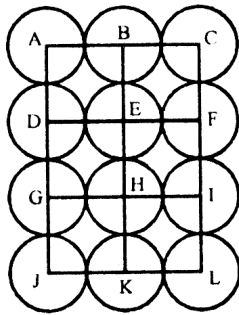
KJOM, JIGQ, ANOM, NFGO, CDEB, QRST, AFIK,



Hence the above figure has 7 squares.

- Q.46.(C) ABED, BCFE, DEHG, EFIH, GHKJ, HILK,

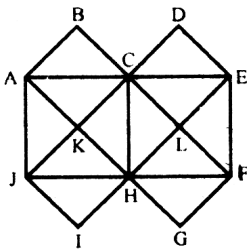
ACIG, DFLJ



So there will be 8 squares.

AE, JF, AJ, CH, EF, AG, BF, JD, IE, AB, DE, JI, FG,

Q.47-49.



Q.47.(B) A total 13 straight lines will be required to construct the shape.

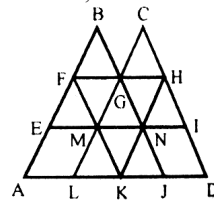
Q.48.(C) JHI, HFG, ACK, CHK, HJK, JAK, GEL, EFL, FHL, HCL, JAC, ACH, CHJ, HJA, HCE, CEF, EFH, FHC, AHE, JCF

So the above figure has 22 triangles.

Q.49.(C) ABCK, CDEL, JKHI, HLFG, KCLH, ACHJ, CEFH

Hence the above figure has 7 squares.

Q.50.(A) EMLA, NIDJ, BFMG, CGNH, GMKN, FGME, GHNM, MNKL, FGNM, GHIN, MNJK, FGLA, ENKA, GHDJ, MIDK, FGJK, GHKL, FBNK, CHKM, EFHN and MFHI, FHKA, FHDK,

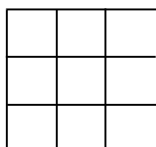


So the figure above has 23 parallelograms.

Counting Figure

TYPE-I

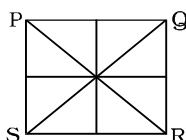
1. The maximum number of squares in the given figure is



- (1) 9 (2) 10
(3) 13 (4) 14

(SSC CPO Sub-Inspector
Exam. 12.01.2003)

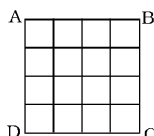
2. How many triangles are there in the figure PQRS ?



- (1) 16 (2) 12
(3) 10 (4) 8

(SSC Combined Graduate Level Prelim
Exam. 11.05.2003 (First Sitting))

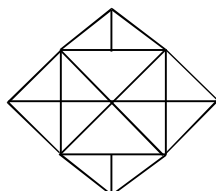
3. How many squares are there in the square figure ABCD ?



- (1) 16 (2) 17
(3) 26 (4) 30

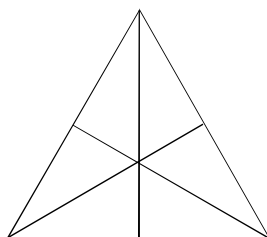
(SSC Combined Graduate Level Prelim
Exam. 11.05.2003 (IInd Sitting))

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



- (1) 18 (2) 28
(3) 20 (4) 24

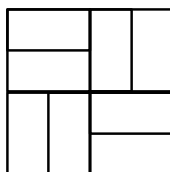
5. How many triangles are there in the following figure ?



- (1) 16 (2) 13
(3) 9 (4) 7

(SSC Combined Graduate Level Prelim
Exam. 08.02.2004 (IInd Sitting))

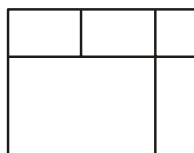
6. How many rectangles are there in the given figure ?



- (1) 24 (2) 16
(3) 21 (4) 14

(SSC Combined Graduate Level Prelim
Exam. 13.11.2005 (First Sitting))

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



- (1) 8 (2) 9
(3) 10 (4) 11

(SSC Combined Graduate Level Prelim
Exam. 13.11.2005 (Second Sitting))

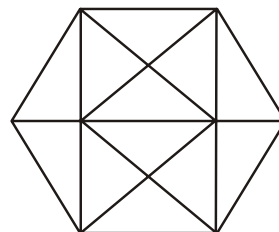
8. How many triangles are there in the following figure ?



- (1) 11 (2) 13
(3) 9 (4) 15

(SSC Combined Graduate Level Tier-1
Exam. 16.05.2010 (First Sitting))

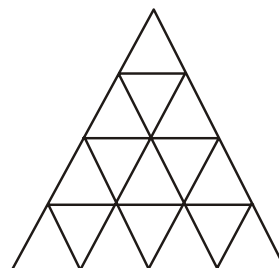
9. How many triangles are there in the following figure ?



- (1) 20 (2) 24
(3) 28 (4) 32

(SSC Combined Graduate Level Tier-1
Exam. 16.05.2010
(Second Sitting))

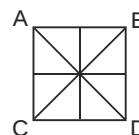
10. How many triangles are there in the following figures?



- (1) 29 (2) 27
(3) 23 (4) 30

(SSC Combined Graduate Level Prelim
Exam. 19.06.2011 (First Sitting))

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



- (1) 16 (3) 14
(2) 8 (4) 12

(SSC Combined Graduate Level Prelim
Exam. 19.06.2011 (Second Sitting))

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

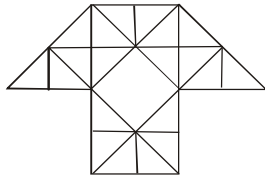


- (1) 4 (2) 7
(3) 9 (4) 18

(SSC Combined Graduate Level Tier-1
Exam. 26.06.2011 (First Sitting))

| MISCELLANEOUS |

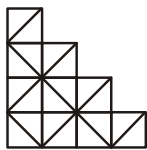
- 13.** How many triangles are there in the given figure ?



- (1) 29 (2) 38
(3) 40 (4) 35

(SSC Combined Graduate Level Tier-1 Exam. 26.06.2011 (Second Sitting))

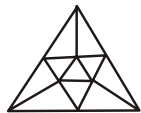
- 14.** How many squares are there in the given figure?



- (1) 10 (2) 11
(3) 12 (4) 14

(SSC CPO (SI, ASI & Intelligence Officer) Exam. 28.08.2011 (Paper-I))

- 15.**

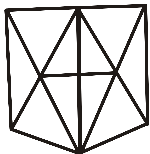


How many triangles are there in the above figure?

- (1) 16 (2) 15
(3) 14 (4) 13

(SSC Combined Matric Level (PRE) Exam. 13.05.2001 (IInd Sitting))

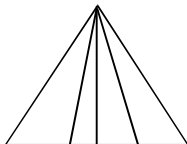
- 16.** How many triangles are there in the following figure?



- (1) 26 (2) 24
(3) 18 (4) 20

(SSC Combined Matric Level (PRE) Exam. 13.05.2001 (IInd Sitting))

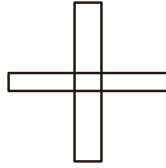
- 17.** How many triangles are there in the given figure?



- (1) 5 (2) 12
(3) 9 (4) 10

(SSC Combined Matric Level (PRE) Exam. 27.05.2001 (IInd Sitting) (East Zone))

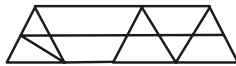
- 18.** How many rectangles are formed in the figure given below ?



- (1) 10 (2) 11
(3) 12 (4) 13

(SSC Combined Matric Level (PRE) Exam. 05.05.2002 (Ist Sitting) (Eastern Zone, Guwahati))

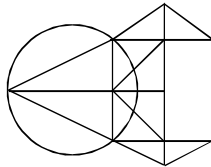
- 19.** Count the number of triangles in the figure below and select the correct answer from the response.



- (1) 7 (2) 8
(3) 9 (4) 11

(SSC Combined Matric Level (PRE) Exam. 05.05.2002 (IInd Sitting) (Eastern Zone, Guwahati))

- 20.**

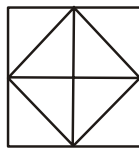


How many triangles are there in the above figure?

- (1) 10 (2) 12
(3) 14 (4) 16

(SSC Combined Matric Level (PRE) Exam. 05.05.2002 (Ist Sitting) (North Zone, Delhi))

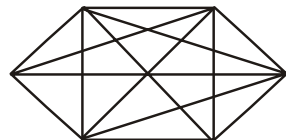
- 21.** How many triangles are there in the following figure ?



- (1) 8 (2) 10
(3) 12 (4) 14

(SSC Combined Matric Level (PRE) Exam. 05.05.2002 (IInd Sitting) (North Zone Delhi))

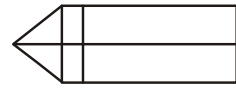
- 22.** How many diagonals are there in the given diagram?



- (1) 10 (2) 12
(3) 8 (4) 6

(SSC Combined Matric Level (PRE) Exam. 12.05.2002 (Ist Sitting))

- 23.** How many rectangles are there in the following figure?



- (1) 7 (2) 6
(3) 8 (4) 9

(SSC Combined Matric Level (Pre) Exam. 12.05.2002 (Ist Sitting))

- 24.** How many triangles in all can be found in the following figures?



- (1) 12 (2) 11
(3) 15 (4) 13

(SSC Combined Matric Level (Pre) Exam. 12.05.2002 (IInd Sitting))

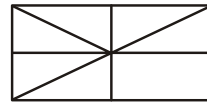
- 25.** How many rhombuses are there in the given diagram?



- (1) 4 (2) 1
(3) 5 (4) 6

(SSC Combined Matric Level (Pre) Exam. 12.05.2002 (IInd Sitting))

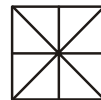
- 26.** How many triangles are there in the figure below ?



- (1) 8 (2) 10
(3) 12 (4) 11

(SSC Combined Matric Level (Pre) Exam. 30.07.2006 (Ist Sitting) (East Zone))

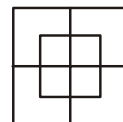
- 27.** Find the number of triangles in the given figure.



- (1) 14 (2) 16
(3) 12 (4) 10

(SSC Combined Matric Level (Pre) Exam. 30.07.2006 (IInd Sitting) Central Zone and 30.03.2008 (Ist Sitting))

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

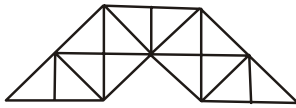


- (1) 7 (2) 12
(3) 8 (4) 10

(SSC Stenographer (Grade C & D) Exam. 26.09.2010)

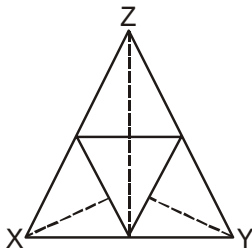
| MISCELLANEOUS |

- 29.** Count the number of triangles in the following figure.



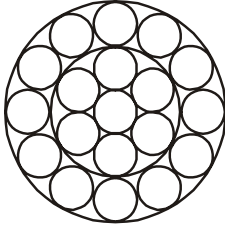
- (1) 27 (2) 23
(3) 29 (4) 31
(SSC Stenographer Grade 'C' & 'D'
Exam. 09.01.2011)

- 30.** Find the number of triangles in the given figure.



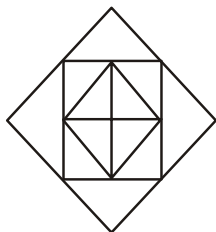
- (1) 17 (2) 15
(3) 13 (4) 9
(SSC CISF Constable (GD)
Exam. 05.06.2011)

- 31.** How many circles are there in this figure ?



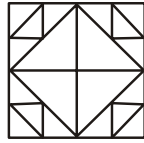
- (1) 19 (2) 18
(3) 17 (4) 21
(SSC Level Data Entry Operator & LDC Exam. 21.10.2012 (IInd Sitting))

- 32.** How many squares are there in this figure ?



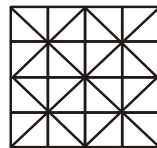
- (1) 4 (2) 5
(3) 6 (4) 8
(SSC Level Data Entry Operator & LDC
Exam. 28.10.2012 (1st Sitting))

- 33.** How many triangles are there in this figure ?



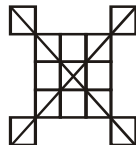
- (1) 24 (2) 26
(3) 28 (4) 20
(SSC (10+2) Level Data Entry Operator & LDC Exam. 04.11.2012, 1st Sitting)

- 34.** Find out the number of squares in the given pattern.



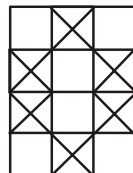
- (1) 26 (2) 30
(3) 35 (4) 38
(SSC Multi-Tasking Staff Exam.
10.03.2013, 1st Sitting : Patna)

- 35.** Find out the number of squares in the given figure.



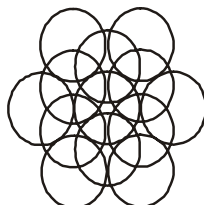
- (1) 13 (2) 14
(3) 17 (4) 18
(SSC Multi-Tasking Staff
Exam. 10.03.2013)

- 36.** Find out the number of squares in the given pattern.



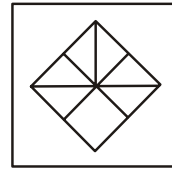
- (1) 20 (2) 23
(3) 12 (4) 18
(SSC Multi-Tasking Staff
Exam. 17.03.2013, 1st Sitting)

- 37.** How many circles are there in the following figure ?



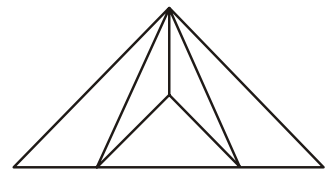
- (1) 12 (2) 13
(3) 14 (4) 11
(SSC Graduate Level Tier-I
Exam. 21.04.2013, 1st Sitting)

- 38.** How many triangles are there in the given figure ?



- (1) 7 (2) 10
(3) 8 (4) 9
(SSC Graduate Level Tier-I
Exam. 21.04.2013, IInd Sitting)

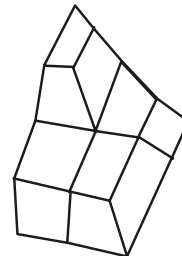
- 39.** Find the number of triangles in the given figure :



- (1) 6 (2) 7
(3) 8 (4) 9
(SSC Constable (GD)
Exam. 12.05.2013 1st Sitting)

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

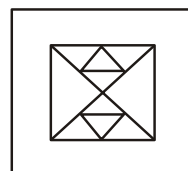
Question Figure :



- (1) 6 (2) 3
(3) 4 (4) 5
(SSC Graduate Level Tier-I
Exam. 19.05.2013, 1st Sitting)

- 41.** How many triangles are there in this figure ?

Question Figure :

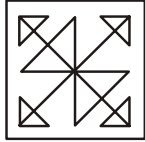


- (1) 12 (2) 14
(3) 16 or more (4) 10
(SSC CGL Tier-I
Re-Exam-2013, 27.04.2014)

| MISCELLANEOUS |

- 42.** Find out the number of triangles in this figure.

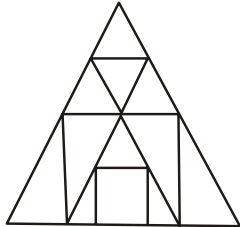
Question Figure :



- (1) 12 (2) 14
(3) 16 (4) 18

(SSC CGL Tier-I
Re-Exam-2013, 27.04.2014)

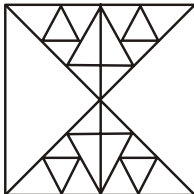
- 43.** Find out the number of triangles in the given figure.



- (1) 13 (2) 15
(3) 16 (4) 17

(SSC CAPFs SI, CISF ASI & Delhi
Police SI Exam. 22.06.2014)

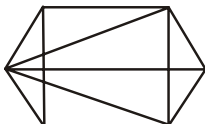
- 44.** Find out the number of triangles in the given figure.



- (1) 34 (2) 38
(3) 44
(4) 48 or more

(SSC CAPFs SI, CISF ASI & Delhi
Police SI Exam. 22.06.2014)

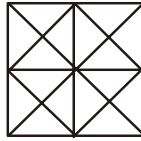
- 45.** Find the number of triangles in the given figure :



- (1) 11 (2) 14
(3) 16 (4) 22 or more

(SSC GL Tier-I Re-Exam. (2013)
20.07.2014, 1st Sitting)

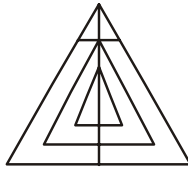
- 46.** How many triangles are there in the given figure ?



- (1) 40 or more (2) 16
(3) 18 (4) 28

(SSC GL Tier-I Re-Exam. (2013)
20.07.2014, IInd Sitting)

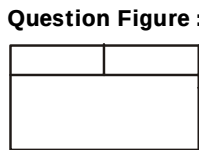
- 47.** How many triangles are there in the given figure ?



- (1) 11 (2) 12 or more
(3) 9 (4) 10

(SSC GL Tier-I Exam. 26.10.2014)

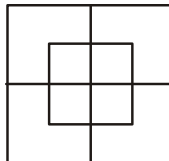
- 48.** How many rectangles are there in the question figure ?



- (1) 6 (2) 7
(3) 8 (4) 9

(SSC CHSL (10+2) DEO & LDC
Exam. 09.11.2014)

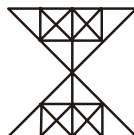
- 49.** How many rectangles are there in the given figure ?



- (1) 6 (2) 4
(3) 8 (4) 10

(SSC CHSL (10+2) DEO & LDC
Exam. 16.11.2014)

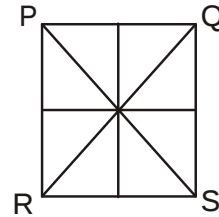
- 50.** How many triangles are there in the given figure ?



- (1) 48 (2) 60
(3) 56 (4) 52

(SSC CGL Tier-I Exam. 19.10.2014
TF No. 022 MH 3)

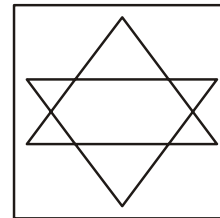
- 51.** How many quadrilaterals are there in the following figure?



- (1) 6 (2) 7
(3) 8 (4) 9

(SSC CHSL (10+2) DEO & LDC Exam.
16.11.2014, 1st Sitting TF No. 333 LO 2)

- 52.** How many triangles are there in the following square ?



- (1) 11 (2) 7
(3) 9 (4) 6

(SSC CAPFs SI, CISF ASI & Delhi Police
SI Exam, 21.06.2015 (1st Sitting)
TF No. 8037731)

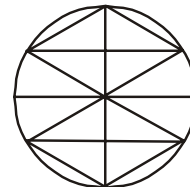
- 53.** How many faces can you count in this 3 dimensional model ?



- (1) 12 (2) 14
(3) 16 (4) 18

(SSC CAPFs SI, CISF ASI & Delhi
Police SI Exam, 21.06.2015
(1st Sitting) TF No. 8037731)

- 54.** How many triangles are embedded in the figure given below ?

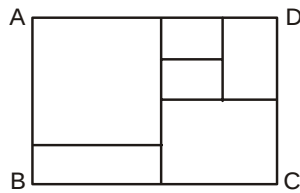


- (1) 16 (2) 6
(3) 22 (4) 24

(SSC CAPFs SI, CISF ASI & Delhi
Police SI Exam, 21.06.2015
IInd Sitting)

| MISCELLANEOUS |

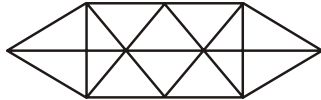
- 55.** How many rectangles are there in the figure ABCD ?



- (1) 11 (2) 12
(3) 9 (4) 10

(SSC CAPFs SI, CISF ASI & Delhi Police SI Exam, 21.06.2015 IInd Sitting)

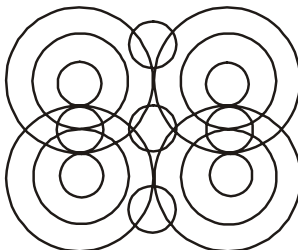
- 56.** How many triangles are there in the figure?



- (1) 24 (2) 14
(3) 28 (4) 20

(SSC CGL Tier-I Exam, 09.08.2015 (Ist Sitting) TF No. 1443088)

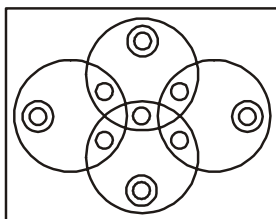
- 57.** Find out the number of circles in the given figure :



- (1) 14 (2) 16
(3) 17 (4) 18

(SSC CGL Tier-I Exam, 09.08.2015 (Ist Sitting) TF No. 1443088)

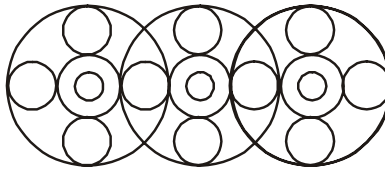
- 58.** How many circles are there in this figure ?



- (1) 16 (2) 13
(3) 17 (4) 22

(SSC CGL Tier-I Exam, 09.08.2015 (IInd Sitting) TF No. 4239378)

- 59.** Find out the number of circles in the given figure.



- (1) 18 (2) 19
(3) 16 (4) 20

(SSC CGL Tier-I Exam, 16.08.2015 (Ist Sitting) TF No. 3196279)

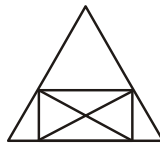
- 60.** The number of triangles in the following diagram is :



- (1) 13 (2) 14
(3) None (4) 17

(SSC CHSL (10+2) LDC, DEO & PA/SA Exam, 06.12.2015 (Ist Sitting) TF No. 1375232)

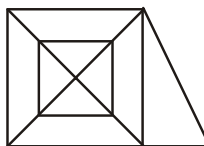
- 61.** Find the number of triangles in the following figure :



- (1) 14 (2) 10
(3) 12 (4) 8

(SSC CHSL (10+2) LDC, DEO & PA/SA Exam, 06.12.2015 (IInd Sitting) TF No. 3441135)

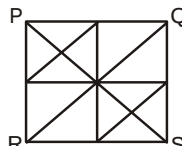
- 62.** How many triangles are there in the following figure ?



- (1) 18 (2) 20
(3) 22 (4) 16

(SSC (10+2) Stenographer Grade 'C' & 'D' Exam, 31.07.2016)

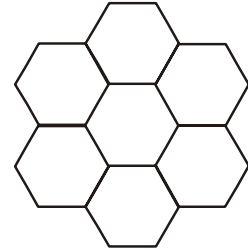
- 63.** How many triangles are there in the following figure PQRS?



- (1) 12 (2) 20
(3) 24 (4) 28

(SSC CGL Tier-I (CBE) Exam.11.09.2016 (Ist Sitting))

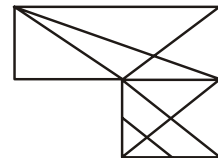
- 64.** Six regular Hexagons of side 5 cm are joined together to form the figure given below. What is the perimeter of this figure?



- (1) 210 (2) 180
(3) 120 (4) 240

(SSC CPO SI, ASI Online Exam.05.06.2016) (IInd Sitting)

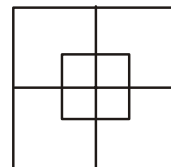
- 65.** How many triangles can be found out from the following figure?



- (1) 17 (2) 21
(3) 24 (4) 25

(SSC CHSL (10+2) Tier-I (CBE) Exam. 08.09.2016) (Ist Sitting)

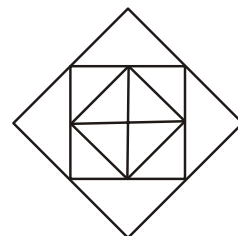
- 66.** The number of squares in the figure is :



- (1) 8 (2) 14
(3) 10 (4) 12

(SSC CAPFs (CPO) SI & ASI, Delhi Police Exam. 20.03.2016) (IInd Sitting)

- 67.** How many triangles are there in this figure ?

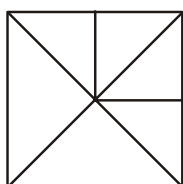


- (1) 12 (2) 16
(3) 9 (4) 8

(SSC CAPFs (CPO) SI & ASI, Delhi Police Exam. 20.03.2016) (IInd Sitting)

| MISCELLANEOUS |

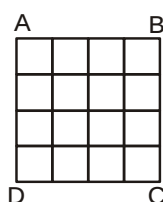
68. Find out the number of triangles in the figure given :



- (1) 6 (2) 8
(3) 10 (4) 12

(SSC CGL Tier-I (CBE)
Exam. 27.08.2016) (Ist Sitting)

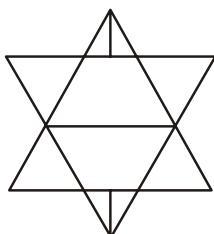
69. How many squares are there in the square figure ABCD?



- (1) 16 (2) 17
(3) 30 (4) 26

(SSC CGL Tier-I (CBE)
Exam. 27.08.2016) (IInd Sitting)

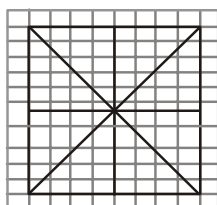
70. How many triangles are there in this figure ?



- (1) 10 (2) 12
(3) 14 (4) 16

(SSC CGL Tier-I (CBE)
Exam. 28.08.2016) (IInd Sitting)

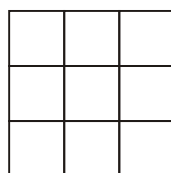
71. What is total number of triangles in the given figure ?



- (1) 16 (2) 32
(3) 40 (4) 12

(SSC CGL Tier-I (CBE)
Exam. 29.08.2016) (IInd Sitting)

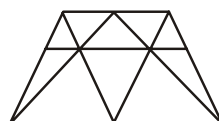
72. In the question figure how many squares are there in all? Select from the given alternatives.



- (1) 12 (2) 14
(3) 10 (4) 11

(SSC CGL Tier-I (CBE)
Exam. 31.08.2016) (Ist Sitting)

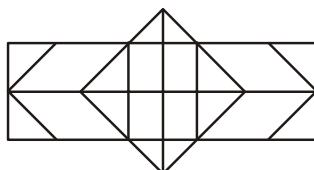
73. How many triangles are there in the given figure ?



- (1) 18 (2) 19
(3) 20 (4) 21

(SSC CGL Tier-I (CBE)
Exam. 01.09.2016) (Ist Sitting)

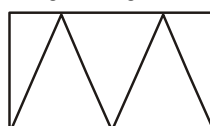
74. How many rectangles are there in the given figure?



- (1) 8 (2) 15
(3) 24 (4) 30

(SSC CGL Tier-I (CBE)
Exam. 02.09.2016) (Ist Sitting)

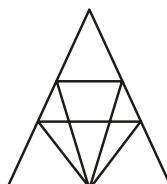
75. How many triangles are there in the given figure?



- (1) 5 (2) 7
(3) 8 (4) 9

(SSC CGL Tier-I (CBE)
Exam. 02.09.2016) (IInd Sitting)

76. Find the number of triangles in the figure.



- (1) 12 (2) 18
(3) 22 (4) 26

(SSC CGL Tier-I (CBE)
Exam. 04.09.2016) (Ist Sitting)

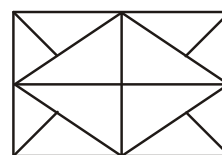
77. How many triangles are there in this geometric figure?



- (1) 12 (2) 16
(3) 18 (4) 20

(SSC CGL Tier-I (CBE)
Exam. 07.09.2016) (Ist Sitting)

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



- (1) 12 (2) 16
(3) 10 (4) 20

(SSC CGL Tier-I (CBE)
Exam. 30.08.2016) (IInd Sitting)

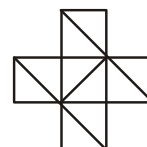
79. Find the number of triangles in the given figure.



- (1) 8 (2) 10
(3) 12 (4) 14

(SSC CGL Tier-I (CBE)
Exam. 31.08.2016) (IInd Sitting)

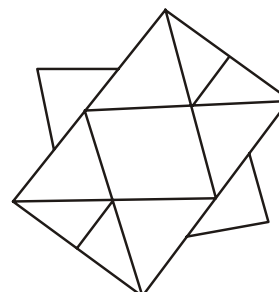
80. How many triangles are there in the given figure?



- (1) 10 (2) 12
(3) 15 (4) 16

(SSC CGL Tier-I (CBE)
Exam. 01.09.2016) (Ist Sitting)

81. Find the number of triangles in the figure

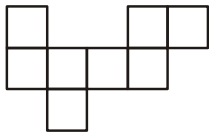


- (1) 12 (2) 10
(3) 18 (4) 16

(SSC CGL Tier-I (CBE)
Exam. 02.09.2016) (Ist Sitting)

| MISCELLANEOUS |

- 82.** How many rectangles can you see in the figure?

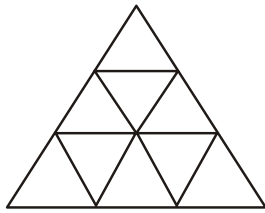


- (1) 9 (2) 8
(3) 10 (4) 7

(SSC CGL Tier-I (CBE)

Exam. 29.08.2016) (Ist Sitting)

- 83.** Find the number of triangles in the given figure :

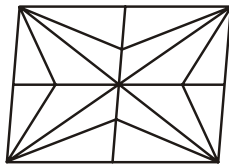


- (1) 11 (2) 12
(3) 13 (4) 14

(SSC CGL Tier-I (CBE)

Exam. 30.08.2016) (IInd Sitting)

- 84.** How many triangles are there in the given figure?

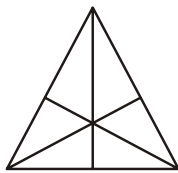


- (1) 24 (2) 28
(3) 36 (4) 32

(SSC CGL Tier-I (CBE)

Exam. 31.08.2016) (IInd Sitting)

- 85.** How many triangles are there in the question figure?

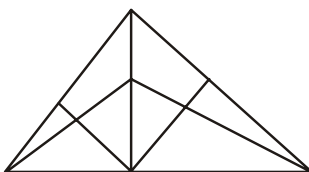


- (1) 6 (2) 10
(3) 12 (4) 16

(SSC CGL Tier-I (CBE)

Exam. 01.09.2016) (IInd Sitting)

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

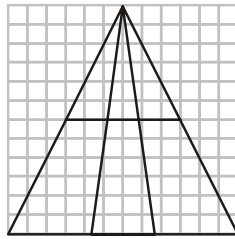


- (1) 18 (2) 13
(3) 9 (4) 5

(SSC CGL Tier-I (CBE)

Exam. 02.09.2016) (IInd Sitting)

- 87.** Find the number of triangles in the given figure.

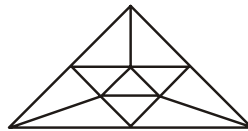


- (1) 12 (2) 14
(3) 16 (4) 18

(SSC CGL Tier-I (CBE)

Exam. 03.09.2016) (IIIrd Sitting)

- 88.** How many triangles are there in the given figure?

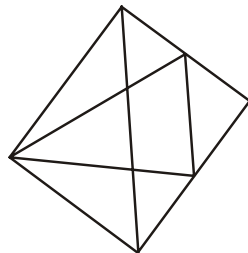


- (1) 10 (2) 13
(3) 15 (4) 16

(SSC CGL Tier-I (CBE)

Exam. 04.09.2016) (IIIrd Sitting)

- 89.** Find the number of triangles in the given figure :

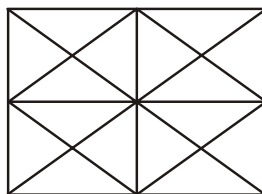


- (1) 8 (2) 9
(3) 11 (4) 13

(SSC CGL Tier-I (CBE)

Exam. 06.09.2016) (IIIrd Sitting)

- 90.** How many triangles are there in the given figure?

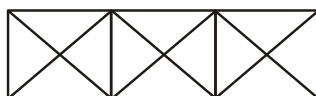


- (1) 24 (2) 36
(3) 40 (4) 44

(SSC CGL Tier-I (CBE)

Exam. 07.09.2016) (IIIrd Sitting)

- 91.** How many triangles are there in the given figure ?

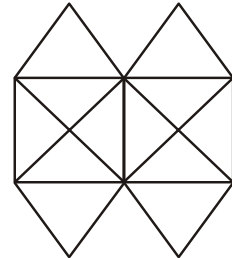


- (1) 18 (2) 24
(3) 28 (4) 30

(SSC CGL Tier-I (CBE)

Exam. 11.09.2016) (IInd Sitting)

- 92.** Find the number of triangles in the figure.

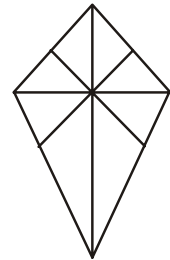


- (1) 12 (2) 20
(3) 22 (4) 24

(SSC CGL Tier-I (CBE)

Exam. 03.09.2016) (IInd Sitting)

- 93.** How many triangles are there in the given figure?

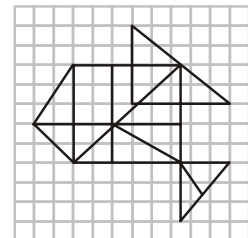


- (1) 14 (2) 15
(3) 16 (4) 18

(SSC CGL Tier-I (CBE)

Exam. 04.09.2016) (IInd Sitting)

- 94.** How many triangles are there in the given figure?

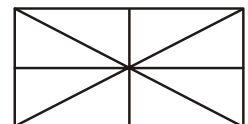


- (1) 16 (2) 23
(3) 26 (4) 29

(SSC CGL Tier-I (CBE)

Exam. 06.09.2016) (IInd Sitting)

- 95.** How many triangles are there in the given figure ?



- (1) 12 (2) 8
(3) 16 (4) 10

(SSC CGL Tier-I (CBE)

Exam. 07.09.2016) (IInd Sitting)

| MISCELLANEOUS |

193. (2)	194. (3)	195. (3)	196. (1)
197. (2)	198. (3)	199. (1)	200. (2)
201. (4)	202. (4)	203. (2)	204. (1)
205. (2)			

TYPE-IV

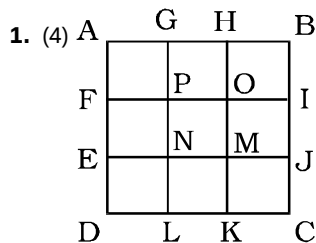
1. (1)	2. (4)	3. (1)	4. (3)
5. (2)	6. (2)	7. (3)	8. (2)
9. (2)	10. (1)	11. (1)	12. (1)
13. (3)	14. (2)	15. (1)	16. (4)
17. (2)	18. (4)	19. (2)	20. (4)
21. (1)	22. (4)		

TYPE-V

1. (4)	2. (3)	3. (2)	4. (3)
5. (2)	6. (3)	7. (4)	8. (1)
9. (2)	10. (1)	11. (4)	12. (3)
13. (1)	14. (2)	15. (1)	16. (2)
17. (3)	18. (4)	19. (1)	

EXPLANATIONS

TYPE-I



The squares are : (14 squares)

- ABCD; □ AHME; □ GBJN;
- FOKD; □ PICL; □ AGPF;
- GHOP; □ HBIO; □ FPNE;
- POMN; □ OIJM; □ ENLD;
- NMKL; □ MJCK

Thus, there are 14 squares.

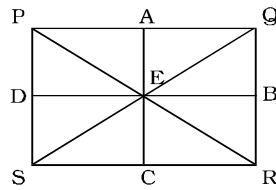
IInd Method :

Required number of squares

$$= \sum_{i=1}^3 n^2 = 1^2 + 2^2 + 3^2 = 14$$

[where n = number of squares on one side]

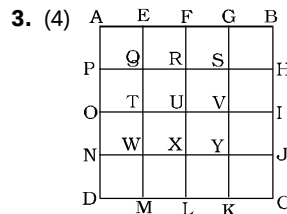
2. (1) First of all label the given diagram :



The triangles are :

- $\triangle PED$; $\triangle PEA$; $\triangle AEQ$; $\triangle QEB$;
- $\triangle BER$; $\triangle CER$; $\triangle CES$; $\triangle DES$;
- $\triangle PES$; $\triangle SER$; $\triangle REQ$; $\triangle PEQ$;
- $\triangle PSR$; $\triangle QRS$; $\triangle PQR$; $\triangle PQS$

Thus, there are 16 triangles.



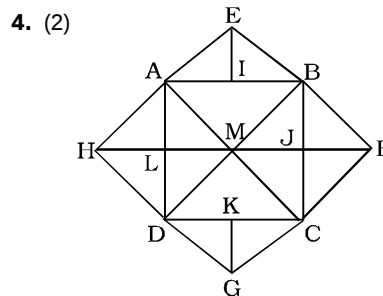
The squares are :

- ABCD, AFUO, FBIU, OULD,
- UICL, EGVU, TVKM, PRXN,
- RHJX, QSYW, AEQP, PQTO,
- OTWN, NWMD, EFRQ, QRUT,
- TUXW, WXLN, FGSR, RSVU,
- UVYX, XYKL, GBHS, SHIV,
- VIJY, YJCK, AGYN, EBJW,
- PSKD, QHCM.

Thus, there are 30 squares.

IInd Method : Required number of squares

$$= \sum_{i=1}^4 n^2 = 1^2 + 2^2 + 3^2 + 4^2 = 30$$

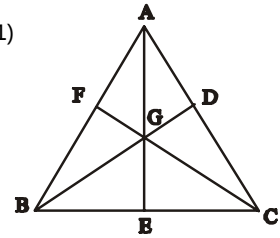


The triangles are :

- $\triangle EAB$; $\triangle FBC$; $\triangle GCD$; $\triangle HAD$;
- $\triangle ADC$; $\triangle BCD$; $\triangle ABC$; $\triangle ABD$;
- $\triangle MAB$; $\triangle MBC$; $\triangle MCD$; $\triangle MAD$;
- $\triangle EAI$; $\triangle EBI$; $\triangle BFJ$; $\triangle FCJ$;
- $\triangle GCK$; $\triangle GDK$; $\triangle HDL$; $\triangle HAL$;
- $\triangle AHM$; $\triangle DHM$; $\triangle BFM$; $\triangle CFM$;
- $\triangle ALM$; $\triangle MLD$; $\triangle BMJ$; $\triangle MCJ$

There are 28 triangles..

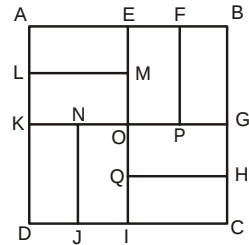
5. (1)



The triangles are : $\triangle ABC$; $\triangle ABE$;
 $\triangle ACE$; $\triangle ABD$; $\triangle ACF$; $\triangle ABD$; $\triangle$
 BCD ; $\triangle AFG$; $\triangle ADG$; $\triangle BFG$;
 $\triangle BEG$; $\triangle CEG$; $\triangle CDG$; $\triangle ACG$;
 $\triangle ABG$; $\triangle BCG$

Thus, there are altogether 16 triangles.

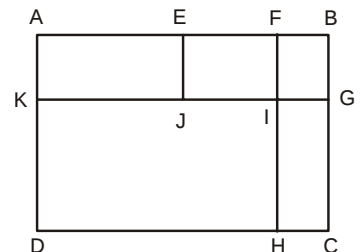
6. (3)



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

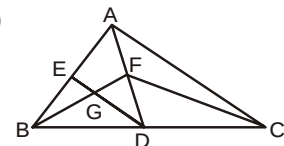
Thus, there are 21 rectangles.

7. (4)



The rectangles are : ABCD, AEJK, AFIK, ABGK, EFIJ, EBGJ, FBGI, FBCH, IGCH, AFHD, KIHD

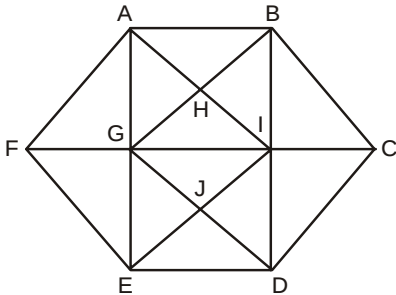
8. (2)



The triangles are :

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

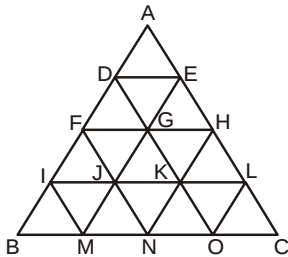
9. (3)



The triangles are :

$\triangle FEB$; $\triangle CBD$; $\triangle FAG$; $\triangle FEG$;
 $\triangle BCI$; $\triangle CDI$; $\triangle AFI$; $\triangle EFI$;
 $\triangle BGC$; $\triangle DCG$; $\triangle AGI$; $\triangle BIH$;
 $\triangle AGB$; $\triangle ABI$; $\triangle HAB$; $\triangle HBI$;
 $\triangle HGI$; $\triangle HAG$; $\triangle GEI$; $\triangle GED$;
 $\triangle IDE$; $\triangle IDG$; $\triangle JGI$; $\triangle JDI$;
 $\triangle JGE$; $\triangle JDE$; $\triangle AIE$; $\triangle BGD$;
 Thus, there are 28 triangles.

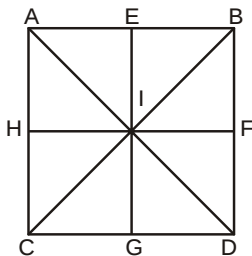
10. (2)



The triangles are :

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

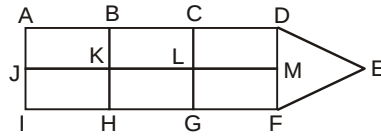
11. (1)



The triangles are :

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

12. (4)

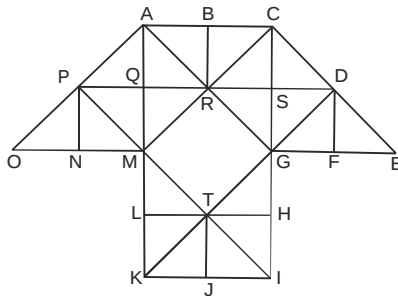


The rectangles are :

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

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

13. (3)



The simplest triangles are :

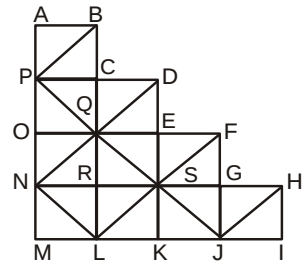
$\triangle PNO$; $\triangle PNM$; $\triangle MPQ$;
 $\triangle MQR$; $\triangle AQP$; $\triangle AQR$;
 $\triangle BRA$; $\triangle BRC$; $\triangle SRC$;
 $\triangle SCD$; $\triangle SGR$; $\triangle SGD$;
 $\triangle DFG$; $\triangle DFE$; $\triangle TLM$;
 $\triangle TJK$; $\triangle TLK$; $\triangle TIH$;
 The triangles composed of two components are :
 $\triangle PON$; $\triangle PMA$; $\triangle APR$;
 $\triangle RAM$; $\triangle RAC$; $\triangle RGC$;
 $\triangle DGC$; $\triangle DGE$; $\triangle MPR$;
 $\triangle GRD$; $\triangle DCR$; $\triangle TMK$;
 $\triangle TKI$; $\triangle TIG$

The triangles composed of four components are :

$\triangle AMO$; $\triangle AMC$; $\triangle CAG$;
 $\triangle CGE$; $\triangle MKI$; $\triangle GIK$;
 Other triangles are : $\triangle SPI$;
 $\triangle DQK$

Total number of triangles
 $18 + 14 + 6 + 2 = 40$

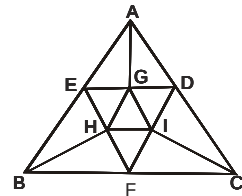
14. (4)



The squares are :

$ABCP$; $PCQO$; $CDEQ$;
 $OQNR$; $QESR$; $EFGS$;
 $NRLM$; $RSKL$; $SGJK$;
 $GHIJ$; $PDSN$; $OEKM$;
 $QFJL$; $NQSL$

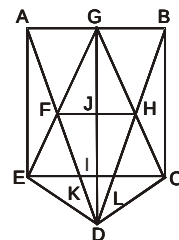
15. (2)



The triangles are : $\triangle ABC$, $\triangle DEF$,
 $\triangle GHI$, $\triangle AEG$, $\triangle ADG$, $\triangle BEH$, $\triangle BFH$, $\triangle CDI$,
 $\triangle CFI$, $\triangle DGI$, $\triangle EGH$, $\triangle FHI$, $\triangle AED$, $\triangle BEF$,
 $\triangle CDF$

Thus, there are 15 triangles.

16. (1)



The triangles are :

$\triangle DABD$, $\triangle DFHD$, $\triangle DFGH$, $\triangle DFGD$,
 $\triangle DGHD$, $\triangle DGJH$, $\triangle DHJD$, $\triangle DJDF$,
 $\triangle DGJF$, $\triangle DKID$, $\triangle DLID$, $\triangle DEID$,
 $\triangle DCID$, $\triangle DCLD$, $\triangle DEKD$, $\triangle DAFE$,
 $\triangle DAFG$, $\triangle DEFK$, $\triangle DAEG$, $\triangle DAEK$,
 $\triangle DAED$, $\triangle DDEF$, $\triangle DCGE$, $\triangle DBGH$,
 $\triangle DBHC$, $\triangle DCHL$, $\triangle DBCG$, $\triangle DBCL$,
 $\triangle DBCD$, $\triangle DDKL$, $\triangle DCDH$, $\triangle DEGI$,
 $\triangle DCGI$, $\triangle DAGD$, $\triangle DBDG$

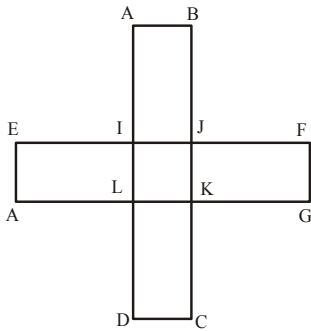
Thus there are 35 triangles. But the largest number among options is 26. Therefore, most appropriate answer is option (1).

17. (4)



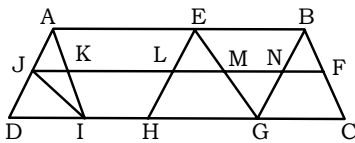
The triangles are : $\triangle ABC$; $\triangle ABD$;
 $\triangle ABE$; $\triangle ABF$; $\triangle ADE$; $\triangle ADF$;
 $\triangle ADC$; $\triangle AEF$; $\triangle AFC$; $\triangle AEC$

18. (2)



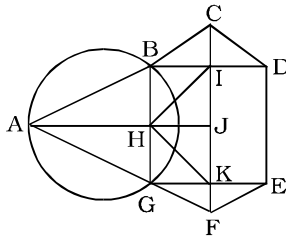
The rectangles are : ABCD, EFGH, ABJI, IJKL, LKCD, EILH, JFGK, ABKL, EJKH, IJCD, FGLI

19. (4)



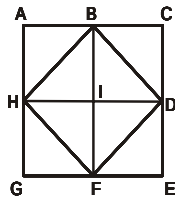
The triangles are: ADI, AJK, DIJ, IJK, EGH, ELM, GMN, GBE, BFN, BCG, JAI

20. (*)



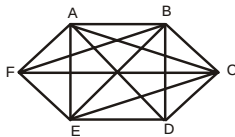
The triangles are : $\triangle ABG$, $\triangle ABH$, $\triangle AGH$, $\triangle BCD$, $\triangle BCI$, $\triangle CDI$, $\triangle EFG$, $\triangle FGK$, $\triangle EFK$, $\triangle HIK$, $\triangle HIJ$, $\triangle BHI$, $\triangle GHK$, $\triangle HJK$, $\triangle AFJ$
There are 15 triangles.

21. (3)

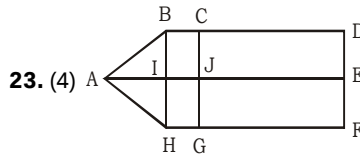


The triangles are : ABH, IBH, BCD, IBD, IDF, EFD, GFH, IFH, BDH, HFB, FDH, DBF

22. (4)



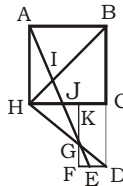
The diagonals are : EC, AC, BE, BF, AD, CF



23. (4)

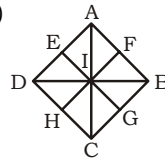
The rectangles are: BDFH, CDFG, BDEI, CDEJ, JIEF, BCJI, IJGH, BCGH

24. (3)



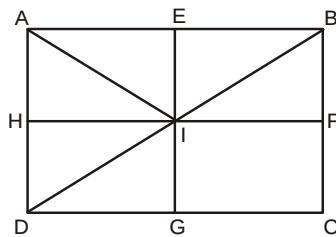
The triangles are : $\triangle ABH$, $\triangle BCH$, $\triangle AHI$, $\triangle HIJ$, $\triangle AHJ$, $\triangle ABI$, $\triangle GHJ$, $\triangle GHI$, $\triangle GJK$, $\triangle GHK$, $\triangle DFG$, $\triangle EFG$, $\triangle CDH$, $\triangle BDH$, $\triangle DEG$
Thus there are 15 triangles.

25. (3)



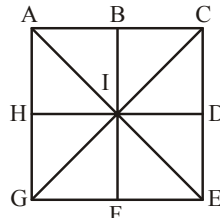
The rhombuses are $\square ABCD$, $\square DEHI$, $\square CHIG$, $\square BFIG$, $\square AFIE$

26. (2)



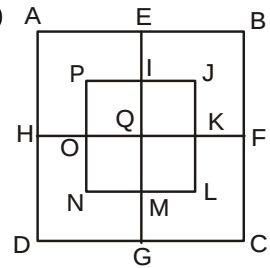
The triangles are : IAB, CBD, ABD, IAD, IBF, EAI, EBI, AIH, DIH, DIG

27. (2)



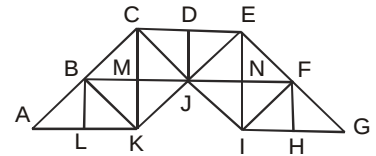
The triangles are : $\triangle AGC$, $\triangle AIC$, $\triangle EGC$, $\triangle CIE$, $\triangle IGE$, $\triangle GAE$, $\triangle CAE$, $\triangle AIG$, $\triangle AIB$, $\triangle AIH$, $\triangle BIC$, $\triangle CID$, $\triangle DIE$, $\triangle EIF$, $\triangle FIG$, $\triangle GIH$

28. (4)



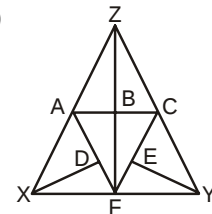
The squares are : ABCD, AEQH, EBFQ, HQGD, QFCG, PJLN, PIQO, IJKQ, OQMN, QKLM

29. (3)



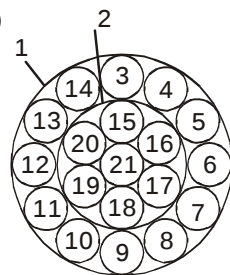
The triangles are : $\triangle ABL$, $\triangle BLK$, $\triangle BMK$, $\triangle BMC$, $\triangle CMJ$, $\triangle CDJ$, $\triangle DEJ$, $\triangle AMKJ$, $\triangle EJN$, $\triangle JIN$, $\triangle ENF$, $\triangle NFI$, $\triangle FIH$, $\triangle FGH$, $\triangle ABK$, $\triangle BCK$, $\triangle BCJ$, $\triangle KBJ$, $\triangle JCE$, $\triangle EFJ$, $\triangle IFJ$, $\triangle FEI$, $\triangle FGI$, $\triangle CKA$, $\triangle CKE$, $\triangle CEI$, $\triangle EGI$, $\triangle CJK$, $\triangle EJI$

30. (1)



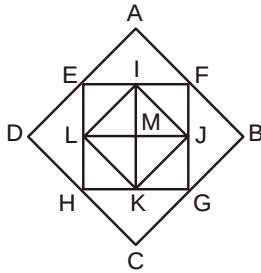
The triangles are : $\triangle ZAB$, $\triangle ZBC$, $\triangle XAD$, $\triangle XDF$, $\triangle FAB$, $\triangle FBC$, $\triangle YEC$, $\triangle FEY$, $\triangle ZAC$, $\triangle XAF$, $\triangle YFC$, $\triangle FAC$, $\triangle ZFX$, $\triangle ZFY$, $\triangle AFZ$, $\triangle CFZ$, $\triangle ZXY$

31. (4)



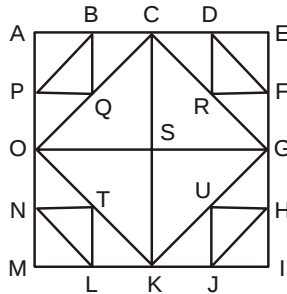
| MISCELLANEOUS |

32. (2)



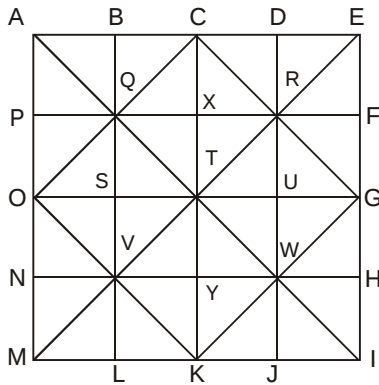
The squares are : EFGH, EIML, IFJM, MJGK, LMKH
There are five squares.

33. (3)



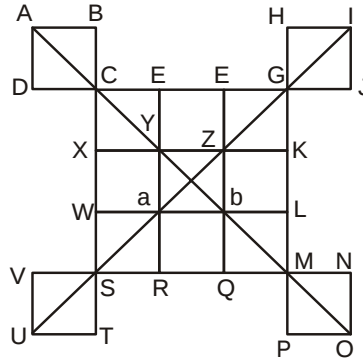
The triangles are :
 $\triangle ABP$; $\triangle ABQP$; $\triangle PQO$; $\triangle ABCQ$;
 $\triangle ACO$; $\triangle ACSO$; $\triangle ACDR$; $\triangle ADRF$;
 $\triangle ADEF$; $\triangle ARFG$; $\triangle ACSR$; $\triangle AECG$;
 $\triangle AIJH$; $\triangle AIJH$; $\triangle AGHU$; $\triangle AIKU$;
 $\triangle AGIK$; $\triangle ASGK$; $\triangle AONT$; $\triangle ANTL$;
 $\triangle ANML$; $\triangle ATLK$; $\triangle AMOK$; $\triangle ASOK$;
 $\triangle ACGO$; $\triangle AGKC$; $\triangle AKGO$; $\triangle ACOK$

34. (3)



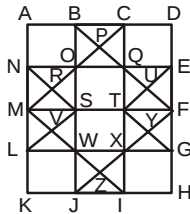
The squares are :
 $\triangle ABQP$, $\triangle BCXQ$, $\triangle CDRX$, $\triangle DEFR$,
 $\triangle PQSO$, $\triangle QXTS$, $\triangle XRUT$, $\triangle RFGU$,
 $\triangle OSVN$, $\triangle STYV$, $\triangle TUWY$, $\triangle UGHW$,
 $\triangle NVLM$, $\triangle VYKL$, $\triangle YWJK$, $\triangle WHIJ$,
 $\triangle ACTO$, $\triangle CEGT$, $\triangle OTKM$, $\triangle TGIC$,
 $\triangle BDUS$, $\triangle SUJL$, $\triangle QRWV$, $\triangle PXYN$,
 $\triangle XFHY$, $\triangle OQTV$, $\triangle VTWK$, $\triangle QCRT$,
 $\triangle TRGW$, $\triangle OCGK$, $\triangle AEIM$, $\triangle ADWN$,
 $\triangle BEHV$, $\triangle PRJM$, $\triangle QFIL$
There are 35 squares.

35. (4)



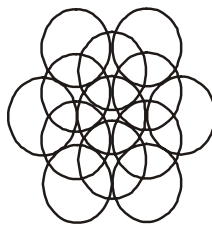
The squares are :
ABCD; CEYX; EFZY; FGKZ;
HIJG; XYaW; YZba; ZKLb;
WaRS; abQR; bLMQ; MNOP;
VSTU; CFbW; EGLa; XZbW;
YKMR; CGMS
There are altogether 18 squares.

36. (2)

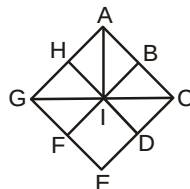


The squares are :
ABON, BCQO, CDEQ, NOSM,
OQTS, QEFT, MSWL, STXW,
TFGX, LWJK, WXIJ, XGHI,
ACTM, BDFS, NQXL, OFGW,
MTIK, SFHJ, ADGL, NEHK,
MRSV, TUFY, MPFZ
Thus, there are 23 squares.

37. (2) There are altogether 13 circles.

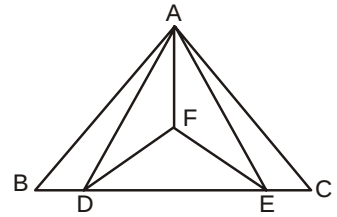


38. (2)



The triangles are : $\triangle AIH$, $\triangle AIB$, $\triangle BIC$,
 $\triangle CID$, $\triangle GIH$, $\triangle GIF$, $\triangle ECG$, $\triangle ACG$, $\triangle AIG$,
 $\triangle AIC$
Thus, there are 10 triangles.

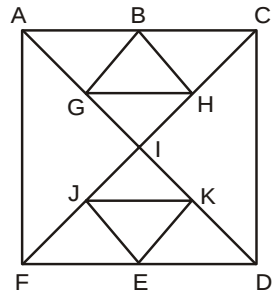
39. (2)



The triangles are : $\triangle ABC$; $\triangle ABD$;
 $\triangle ADE$; $\triangle AEC$; $\triangle AFE$;
 $\triangle AFD$;

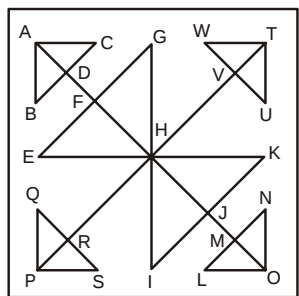
40. (1) Five blocks are visible and one block is hidden.

41. (3)



The triangles are :
 $\triangle AGB$; $\triangle ABGH$; $\triangle ABHC$; $\triangle AIGH$;
 $\triangle AIJK$; $\triangle AJKE$; $\triangle AKED$; $\triangle AJEF$;
 $\triangle AIAC$; $\triangle AICD$; $\triangle AIFD$; $\triangle AIAF$;
 $\triangle ACAD$; $\triangle ADCF$; $\triangle AAFD$; $\triangle AAFC$;

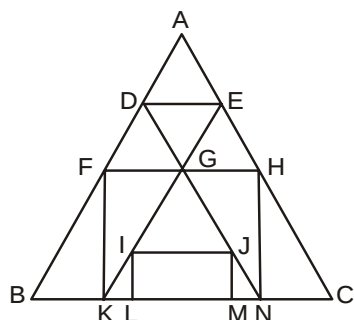
42. (4)



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

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

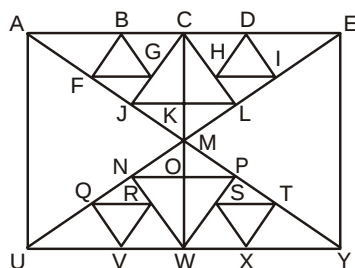
43. (3)



The triangles are :

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

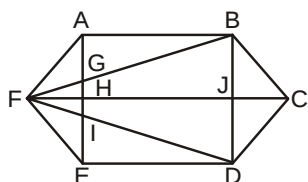
44. (4)



The triangles are :

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

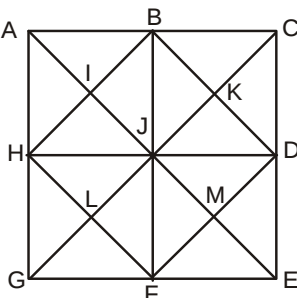
45. (4)



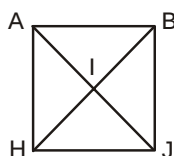
The triangles are :

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

46. (1)



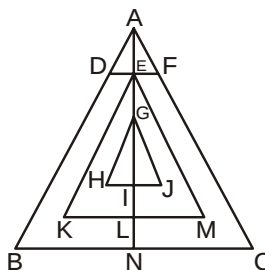
First of all take one block and count the number of triangles:



The triangles are :

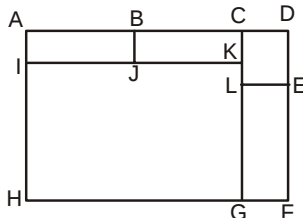
$\triangle IAB$; $\triangle IJB$; $\triangle IAH$; $\triangle IHJ$;
 $\triangle AHB$; $\triangle ABJ$; $\triangle AHJ$; $\triangle BJH$;
 There are four such blocks.
 Therefore, the number of simple triangles = $4 \times 8 = 32$
 Now, count the composite triangles:
 $\triangle JAC$; $\triangle JAG$; $\triangle JCE$; $\triangle JGE$;
 $\triangle BHD$; $\triangle DBF$; $\triangle FDH$; $\triangle HBF$;
 $\triangle AGE$; $\triangle CEG$; $\triangle CAE$; $\triangle AGC$;
 Thus, there are more than 40 triangles.

47. (2)



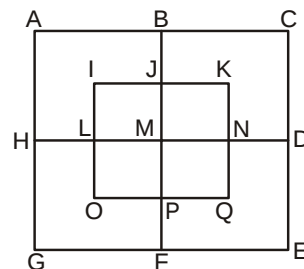
The triangles are : $\triangle ADF$;
 $\triangle ADE$; $\triangle AFE$; $\triangle EKM$; $\triangle ELK$;
 $\triangle ELM$; $\triangle GHJ$; $\triangle GIH$; $\triangle GIJ$; $\triangle ABC$;
 $\triangle ANB$; $\triangle ANC$;

48. (4)



The Rectangles are $\frac{1}{2}$ $ABJI$; $BCKJ$;
 $CDEL$; $LEFG$; $IKGH$; $CDFG$;
 $ACGH$; $ACKI$; $ADFH$
 Thus, there are 9 rectangles.

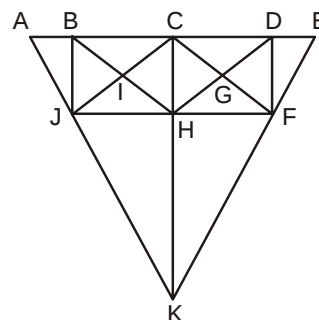
49. (*)



The rectangles are :

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

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

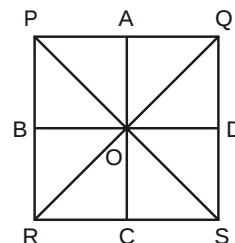


The triangles are :

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

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

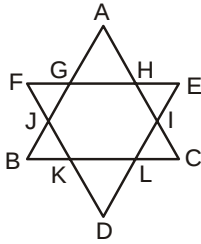
51. (4)



Quadrilaterals are :

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

52. (*)



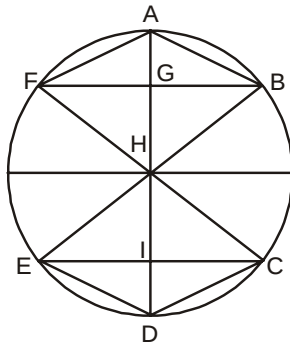
The triangles are :

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

There are eight triangles.

53. (4) 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
 $= 4 \times 4 + 2 = 18$

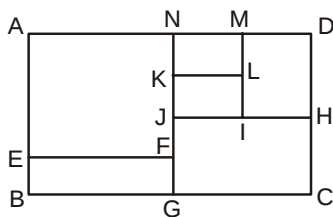
54. (1)



The triangles are :

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

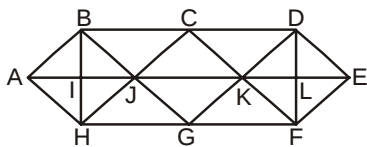
55. (4)



The rectangles are :

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

56. (3)

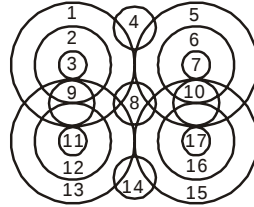


The triangles are :

$\triangle ABI$; $\triangle AHI$; $\triangle ABH$; $\triangle BJI$;

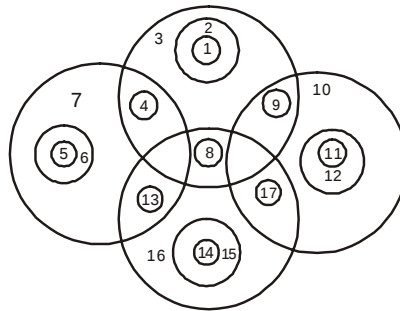
$\triangle HJI$; $\triangle JBH$; $\triangle JBC$; $\triangle JHG$;
 $\triangle CJK$; $\triangle GKJ$; $\triangle KCD$; $\triangle KGF$;
 $\triangle KDF$; $\triangle DLE$; $\triangle FLE$; $\triangle EDF$;
 $\triangle DLK$; $\triangle FLK$; $\triangle BHG$; $\triangle BHC$;
 $\triangle CHF$; $\triangle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

57. (3)

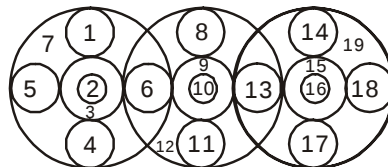


There are 17 circles.

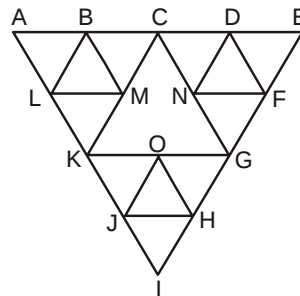
58. (3)



59. (2)



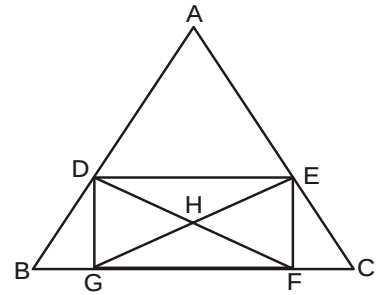
60. (4)



The triangles are :

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

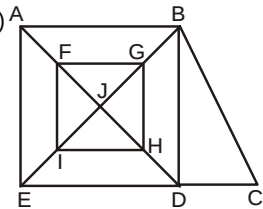
61. (1)



The triangles are :

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

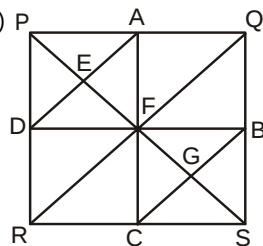
62. (1)



The triangles are :

$\triangle JFI$; $\triangle JHI$; $\triangle JHG$; $\triangle JFG$;
 $\triangle JAB$; $\triangle JAE$; $\triangle JED$; $\triangle JDB$;
 $\triangle FGI$; $\triangle FIH$; $\triangle GHI$; $\triangle FGH$;
 $\triangle AEB$; $\triangle AED$; $\triangle BDE$; $\triangle ABD$;
 $\triangle BEC$; $\triangle BDC$

63. (4)



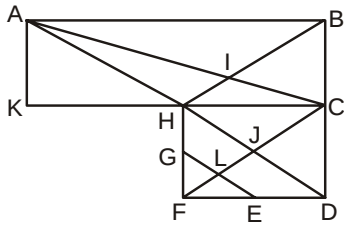
The triangles are :

$\triangle EPD$; $\triangle EPA$; $\triangle EAF$; $\triangle EDF$; $\triangle PDA$; $\triangle AFD$; $\triangle PDF$; $\triangle PAF$;
 $\triangle DFR$; $\triangle FCR$; $\triangle FPR$; $\triangle AFQ$;
 $\triangle QBF$; $\triangle FSQ$; $\triangle GFB$; $\triangle GBS$;
 $\triangle GCS$; $\triangle GFC$; $\triangle FCB$; $\triangle FBS$;
 $\triangle FCS$; $\triangle BSC$; $\triangle FPQ$; $\triangle FRS$;
 $\triangle PRS$; $\triangle PQS$; $\triangle QSR$; $\triangle PQR$;

64. (3) Perimeter of one regular hexagon = $6 \times 5 = 30$ cm.
 Perimeter is the length of the boundary = $18 \times 5 = 90$
 Perimeter of internal boundary = $6 \times 5 = 30$
 $\therefore$ Total perimeter = $90 + 30 = 120$

| MISCELLANEOUS |

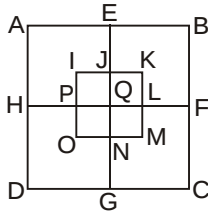
65. (3)



The triangles are :

ΔAKH ; ΔAHI ; ΔAIB ; ΔAHC ;
 ΔAKC ; ΔABC ; ΔBIC ; ΔBCH ;
 ΔAHB ; ΔHJC ; ΔJCD ; ΔHJF ;
 ΔJFD ; ΔGLF ; ΔLFE ; ΔGFE ;
 ΔHFD ; ΔHCD ; ΔFDC ; ΔHFC ;
 ΔAJC ; ΔACD ; ΔHIC ; ΔHBD ;

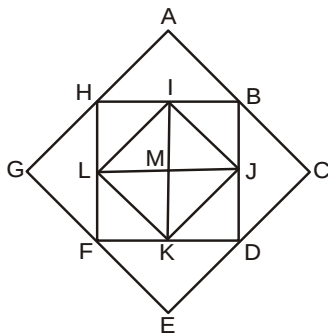
66. (3)



The squares are :

$IJQP$; $JKLQ$; $PQNO$;
 $QLMN$; $IKMO$; $AEQH$;
 $EBFQ$; $HQGD$; $QFCG$;
 $ABCD$

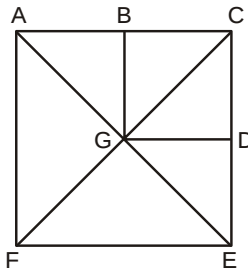
67. (2)



The triangles are :

ΔHIL ; ΔIBJ ; ΔJDK ; ΔLFK ;
 ΔIML ; ΔIMJ ; ΔMJK ; ΔLMK ;
 ;
 ΔILJ ; ΔJKI ; ΔKLJ ; ΔLKI ;
 ΔAHB ; ΔCBD ; ΔEDF ; ΔGFH ;

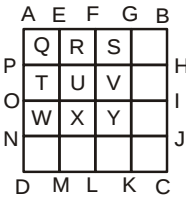
68. (4)



The triangles are :

ΔGAF ; ΔGFE ; ΔABG ; ΔGDE ;
 ΔGBC ; ΔGDC ; ΔGEC ; ΔGAC ;
 ΔAFE ; ΔAFC ; ΔCEF ; ΔACE ;

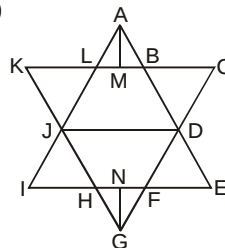
69. (3)



The squares are :

$AEQP$; $EFRQ$; $FGSR$; $GBHS$;
 $PQTO$; $QRUT$; $RSVU$; $SHIV$;
 $OTWN$; $TUXW$; $UVYX$; $VIJY$;
 $NWMD$; $WXML$; $XYKL$; $YJCK$;
 $AFUO$; $EGVT$; $FBIU$; $PRXN$;
 $QSYW$; $RHJX$; $OULD$; $TVKM$;
 $UICL$; $AGYN$; $EBJW$; $PSKD$;
 $QHCM$; $ABCD$

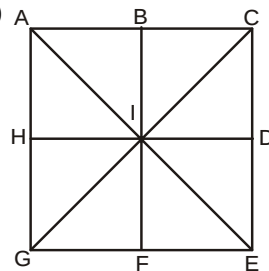
70. (3)



The triangles are :

ΔAML ; ΔAMB ; ΔALB ;
 ΔKJL ; ΔCBD ; ΔAJD ;
 ΔJIH ; ΔGNH ; ΔGNF ;
 ΔEFD ; ΔGJD ; ΔGHF ;
 ΔAIE ; ΔGCK ;

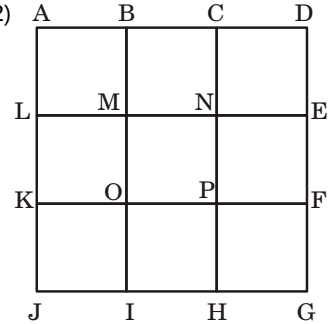
71. (1)



The triangles are :

ΔAHI ; ΔABI ; ΔCBI ;
 ΔCDI ; ΔIHG ; ΔIFG ;
 ΔDIE ; ΔIFE ; ΔICA ;
 ΔIEC ; ΔIGE ; ΔIAG ;
 ΔAGE ; ΔCEG ; ΔCAE ;
 ΔAGC

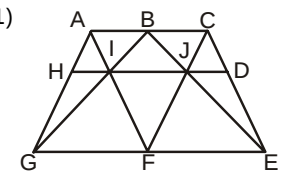
72. (2)



The squares are :

$ABML$; $BCNM$; $CDEN$;
 $LMOK$; $MNPO$; $NEFP$;
 $KOIJ$; $OPHI$; $PFGH$;
 $ACPK$; $BDFO$; $LNHJ$;
 $MEGI$; $ADGJ$

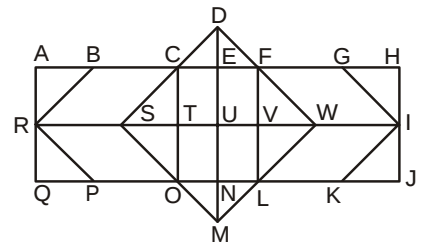
73. (1)



The triangles are :

ΔAHI ; ΔAIB ; ΔBIJ ; ΔBJC ;
 ΔCJD ; ΔHIG ; ΔIGF ; ΔFIJ ;
 ΔJFE ; ΔJDE ; ΔAGF ; ΔAIH ;
 ΔHGI ; ΔFAC ; ΔBGE ; ΔCFE ;
 ΔECB ; ΔJCE ;

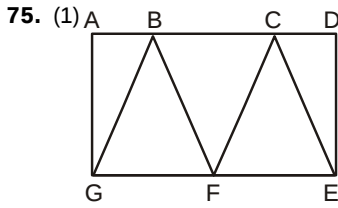
74. (4)



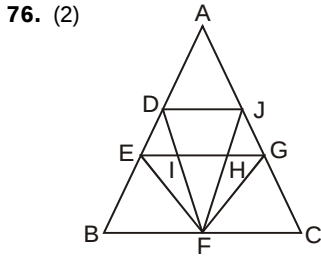
The rectangles are :

$ACTR$; $CEUT$; $EFVU$; $FHIV$;
 $AEUR$; $AFVR$; $AHIR$; $CFVT$;
 $CHIT$; $EHIU$; $RTOQ$; $TUNO$;
 $UVLN$; $VIJL$; $RUNQ$; $RVLQ$;
 $RIJQ$; $TVLO$; $TIJO$; $UIJN$;
 $ACOQ$; $AENQ$; $AFLQ$; $AHJQ$;
 $CENO$; $CFLO$; $CHJO$; $EFLN$;
 $EHJN$; $FHJL$;

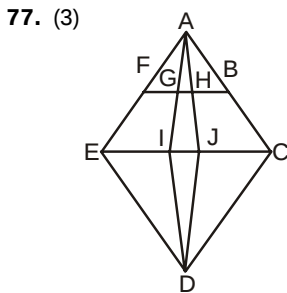
| MISCELLANEOUS |



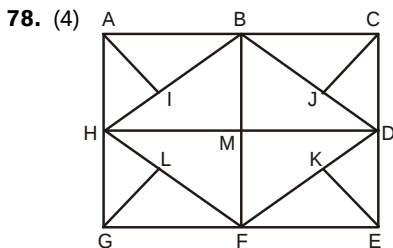
The triangles are :
 $\triangle GAB$; $\triangle BGF$; $\triangle FBC$;
 $\triangle CFE$; $\triangle EDC$



The triangles are :
 $\triangle ADJ$; $\triangle DEI$; $\triangle JHG$; $\triangle EBF$;
 $\triangle EIF$; $\triangle FIH$; $\triangle FHG$; $\triangle GFC$;
 $\triangle AEG$; $\triangle DEF$; $\triangle DBF$; $\triangle FEG$;
 $\triangle FDJ$; $\triangle GFJ$; $\triangle JFC$; $\triangle FEH$;
 $\triangle FIG$; $\triangle ABC$



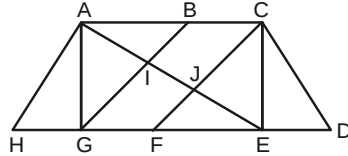
The triangles are :
 $\triangle AFG$; $\triangle AGH$; $\triangle AHB$; $\triangle AFH$; $\triangle AGB$;
 $\triangle AFB$; $\triangle AEI$; $\triangle AIJ$; $\triangle AJC$;
 $\triangle AEJ$; $\triangle AIC$; $\triangle AEC$; $\triangle DEI$;
 $\triangle DIJ$; $\triangle DJC$; $\triangle DEJ$; $\triangle DIC$;
 $\triangle DEC$



The triangles are :
 $\triangle AHI$; $\triangle AIB$; $\triangle AHB$; $\triangle BMH$;

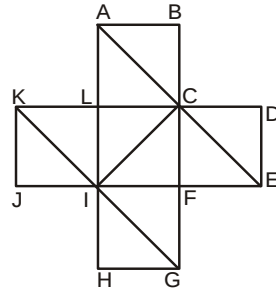
$\triangle BJC$; $\triangle BMD$; $\triangle BCD$; $\triangle CDJ$;
 $\triangle GHL$; $\triangle GFL$; $\triangle HGF$; $\triangle MFH$;
 $\triangle EFK$; $\triangle EDK$; $\triangle DEF$; $\triangle MFD$;
 $\triangle HBF$; $\triangle BHD$; $\triangle DBF$; $\triangle FDH$;

79. (4)



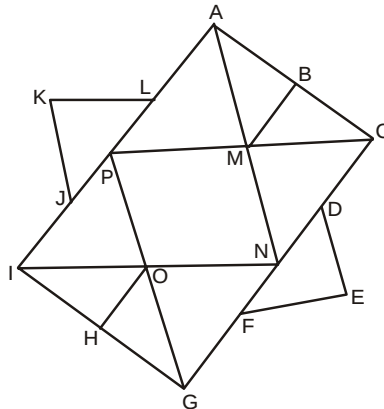
The triangles are :
 $\triangle AGH$; $\triangle AGI$; $\triangle AIB$; $\triangle AGE$;
 $\triangle ACE$; $\triangle ACJ$; $\triangle GIE$; $\triangle AGB$;
 $\triangle CJE$; $\triangle CEF$; $\triangle CED$; $\triangle CFD$;
 $\triangle JFE$; $\triangle EAH$

80. (4)



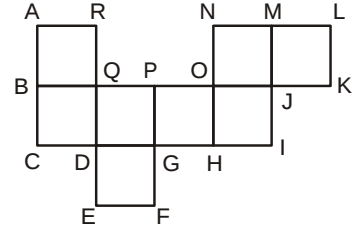
The triangles are :
 $\triangle ALC$; $\triangle ABC$; $\triangle DCE$; $\triangle CFE$;
 $\triangle KJI$; $\triangle KLI$; $\triangle IHG$; $\triangle IFG$;
 $\triangle CLI$; $\triangle IFC$; $\triangle CAI$; $\triangle CIE$;
 $\triangle IGC$; $\triangle ICK$; $\triangle AIE$; $\triangle KCG$;

81. (3)



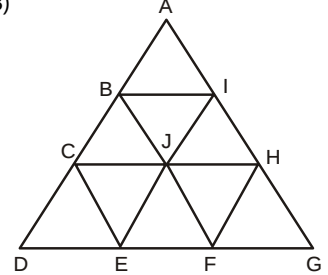
The triangles are :
 $\triangle ABM$; $\triangle AMP$; $\triangle ACN$; $\triangle APC$;
 $\triangle AIN$; $\triangle CBM$; $\triangle CMN$; $\triangle CPG$;
 $\triangle DEF$; $\triangle OGN$; $\triangle OGH$; $\triangle OHI$;
 $\triangle OIG$; $\triangle IGN$; $\triangle GIP$; $\triangle JKL$;
 $\triangle OPI$; $\triangle MAC$;

82. (3)



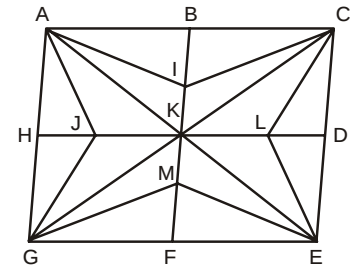
The rectangles are :
 $\triangle ACDR$; $\triangle BPGC$; $\triangle BOHC$;
 $\triangle BJIC$; $\triangle QEPF$; $\triangle NHIM$;
 $\triangle NLKO$; $\triangle PJIG$; $\triangle QJID$; $\triangle QOHD$

83. (3)



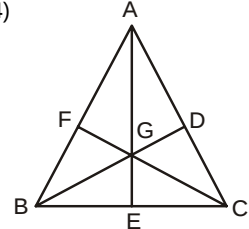
The triangles are :
 $\triangle ABI$; $\triangle BCJ$; $\triangle JIB$; $\triangle IJH$;
 $\triangle JEF$; $\triangle ACH$; $\triangle CDE$; $\triangle EECJ$;
 $\triangle AFJH$; $\triangle AHFG$; $\triangle DBF$; $\triangle AGEI$;
 $\triangle ADG$

84. (3)



The triangles are :
 $\triangle AHJ$; $\triangle AJK$; $\triangle AKI$; $\triangle ABI$;
 $\triangle ACBI$; $\triangle CKI$; $\triangle CKL$; $\triangle CLD$;
 $\triangle AGHJ$; $\triangle GJK$; $\triangle GKM$; $\triangle GMF$;
 $\triangle AEDL$; $\triangle ELK$; $\triangle EKM$; $\triangle EMF$;
 $\triangle AHK$; $\triangle ABK$; $\triangle ACKB$; $\triangle CKD$;
 $\triangle IAC$; $\triangle KAC$; $\triangle GHK$; $\triangle GKF$;
 $\triangle AMGE$; $\triangle KGE$; $\triangle EKF$; $\triangle EKD$;
 $\triangle JAG$; $\triangle KAG$; $\triangle LEC$; $\triangle KEC$;
 $\triangle AGE$; $\triangle CEG$; $\triangle AGC$; $\triangle ACE$;

85. (4)

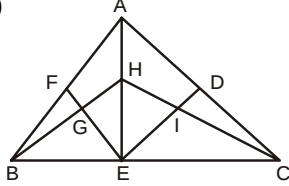


| MISCELLANEOUS |

The triangles are :

$\triangle AFG$; $\triangle ADG$; $\triangle GAB$; $\triangle GAC$;
 $\triangle AEB$; $\triangle AEC$; $\triangle BFG$; $\triangle BEG$;
 $\triangle CDG$; $\triangle CEG$; $\triangle BDA$; $\triangle BDC$;
 $\triangle CFB$; $\triangle CFA$; $\triangle GBC$; $\triangle ABC$;

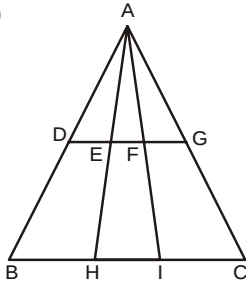
86. (1)



The triangles are :

$\triangle BFG$; $\triangle BGE$; $\triangle BFE$; $\triangle BHE$;
 $\triangle BHA$; $\triangle AEF$; $\triangle GEH$; $\triangle IHE$;
 $\triangle CIE$; $\triangle CID$; $\triangle CHE$; $\triangle CAH$;
 $\triangle CDE$; $\triangle HBC$; $\triangle AED$; $\triangle AEB$;
 $\triangle AEC$; $\triangle ABC$

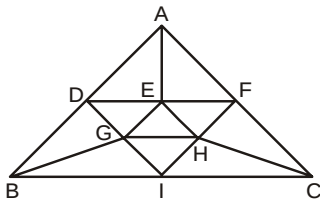
87. (1)



The triangles are :

$\triangle ADE$; $\triangle AEF$; $\triangle AFG$;
 $\triangle ADF$; $\triangle AEG$; $\triangle ADG$;
 $\triangle ABH$; $\triangle AHI$; $\triangle AIC$;
 $\triangle ABI$; $\triangle AHC$; $\triangle ABC$;

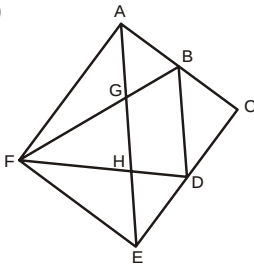
88. (3)



The triangles are :

$\triangle AED$; $\triangle AEF$; $\triangle ADF$;
 $\triangle DEG$; $\triangle EGH$; $\triangle FEH$;
 $\triangle IHG$; $\triangle IDF$; $\triangle BGD$;
 $\triangle BGI$; $\triangle BID$; $\triangle CHI$;
 $\triangle CHF$; $\triangle CFI$; $\triangle ABC$

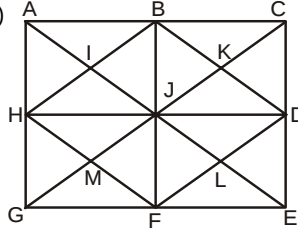
89. (4)



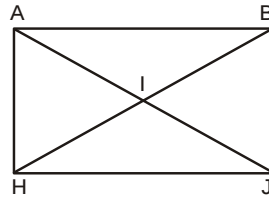
The triangles are :

$\triangle AFG$; $\triangle AGB$; $\triangle BDC$;
 $\triangle DEH$; $\triangle HFE$; $\triangle FGH$;
 $\triangle AFH$; $\triangle AFE$; $\triangle AFB$;
 $\triangle AEC$; $\triangle BFD$; $\triangle FDE$;
 $\triangle GFE$

90. (3)



Count the number of triangles in one of the four sectors :



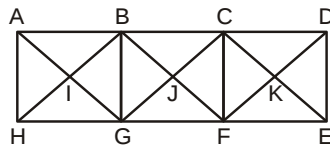
The triangles are :

$\triangle IAH$; $\triangle IHJ$; $\triangle IJB$; $\triangle IBA$;
 $\triangle BAH$; $\triangle JHA$; $\triangle HJB$; $\triangle ABJ$;
 Now, the number of triangles in all the four sectors
 $= 8 \times 4 = 32$

Further count the numbers of triangles which are in more than one sector.

Such triangles are :
 $\triangle JAG$; $\triangle JGE$; $\triangle JEC$; $\triangle JCA$;
 $\triangle AGE$; $\triangle CEG$; $\triangle ACE$; $\triangle CAG$;
 Thus, total number of triangles
 $= 32 + 8 = 40$

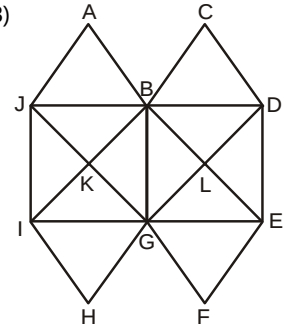
91. (3)



The triangles are :

$\triangle IBA$; $\triangle IAH$; $\triangle IHG$; $\triangle IGB$;
 $\triangle BAH$; $\triangle AHG$; $\triangle BGH$; $\triangle ABG$;
 $\triangle JCB$; $\triangle JBG$; $\triangle JGF$; $\triangle JFC$;
 $\triangle BGF$; $\triangle GFC$; $\triangle BCF$; $\triangle CBG$;
 $\triangle KDC$; $\triangle KCF$; $\triangle KFE$; $\triangle KED$;
 $\triangle DCF$; $\triangle CFE$; $\triangle DEF$; $\triangle CDE$;
 $\triangle BHF$; $\triangle AGC$; $\triangle FDB$; $\triangle CGE$;

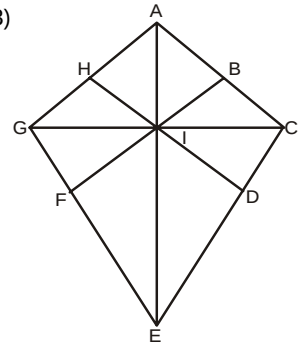
92. (3)



The triangles are :

$\triangle AJB$; $\triangle KJI$; $\triangle KIG$; $\triangle KGB$;
 $\triangle KBJ$; $\triangle BJI$; $\triangle JIG$; $\triangle BGI$;
 $\triangle JBG$; $\triangle HIG$; $\triangle CBD$; $\triangle LBG$;
 $\triangle LGE$; $\triangle LED$; $\triangle LDB$; $\triangle DBG$;
 $\triangle BGE$; $\triangle DEG$; $\triangle BDE$; $\triangle FGE$;
 $\triangle GDJ$; $\triangle BIE$;

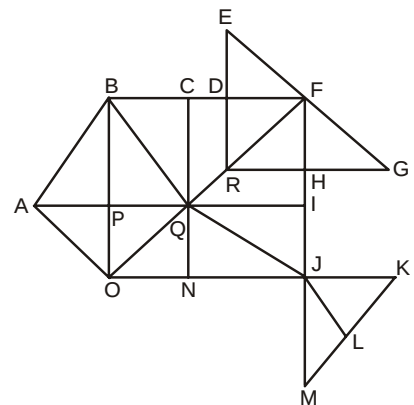
93. (3)



The triangles are :

$\triangle AHI$; $\triangle ABI$; $\triangle AIG$; $\triangle AIC$;
 $\triangle HGI$; $\triangle BCI$; $\triangle AGC$; $\triangle IFG$;
 $\triangle IDC$; $\triangle FEI$; $\triangle DEI$; $\triangle EIC$;
 $\triangle EIG$; $\triangle EGC$; $\triangle GEA$; $\triangle CEA$;

94. (4)



The triangles are :

$\triangle APB$; $\triangle APO$; $\triangle AOB$; $\triangle BPQ$;