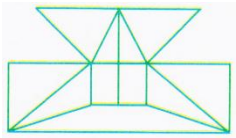
(Reasoning Workbook Question)

QUESTIONS

Direction (1 -2): Find the minimum number of straight lines required to make each of the given figures.

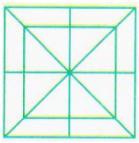
1. 

(a) 16 (b) 17
(c) 18 (d) 19

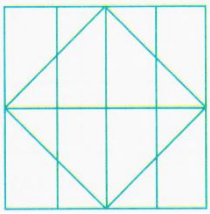
2. 

(a) 9 (b) 10
(c) 11 (d) 20

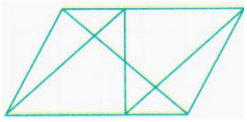
Direction (3-13): How many triangles are there in each of the following figures?

3. 

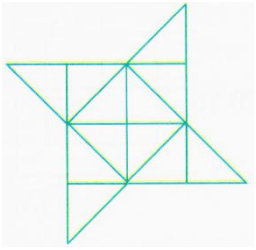
(a) 26 (b) 28
(c) 22 (d) 32

4. 

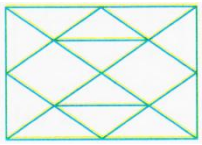
(a) 20 (b) 22
(c) 23 (d) 24

5. 

(a) 16 (b) 26
(c) 20 (d) 18

6. 

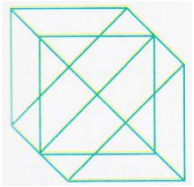
(a) 24 (b) 26
(c) 28 (d) 30

7. 

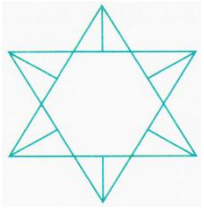
(a) 20 (b) 22
(c) 24 (d) 26

8. 

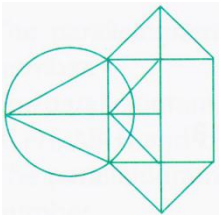
(a) 20 (b) 11
(c) 12 (d) 13

9. 

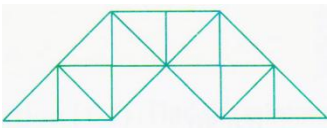
(a) 18 (b) 20
(c) 24 (d) 27

10. 

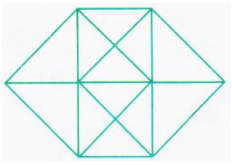
(a) 21 (b) 23
(c) 20 (d) 18

11. 

(a) 10 (b) 12
(c) 14 (d) 16

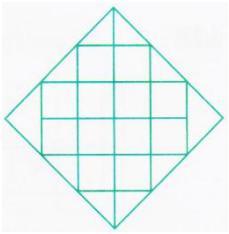
12. 

(a) 23 (b) 27
(c) 29 (d) 31

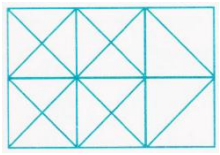
13. 

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

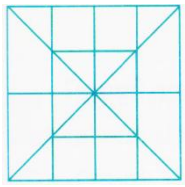
Direction (14-18): How many squares are there in each of the following figures?

14. 

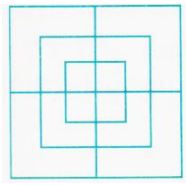
(a) 8 (b) 12
(c) 10 (d) 18

15. 

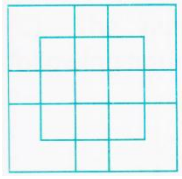
(a) 16 (b) 19
(c) 17 (d) 14

16. 

(a) 13 (b) 16
(c) 19 (d) 20

17. 

(a) 8 (b) 12
(c) 15 (d) 18

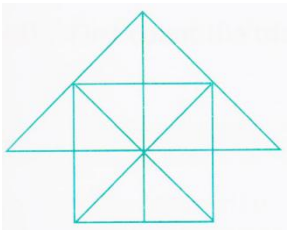
18. 

(a) 21 (b) 23
(c) 25 (d) None of these

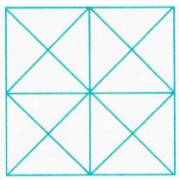
Direction (19-21): Count the number of triangles and squares in the given figure.

19. 

(a) 28 triangles, 3 squares
(b) 24 triangles, 5 squares
(c) 28 triangles, 5 squares
(d) 24 triangles, 3 squares

20. 

(a) 26 triangles, 5 squares
(b) 28 triangles, 5 squares
(c) 26 triangles, 6 squares
(d) 28 triangles, 6 squares

21. 

(a) 44 triangles, 10 squares
(b) 14 triangles, 16 squares
(c) 27 triangles, 6 squares
(d) 36 triangles, 9 squares

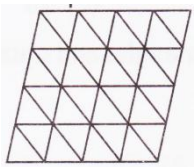
22. How many minimum number of straight lines are required to make the given figure?

(a) 8 (b) 11
(c) 12 (d) 13

23. Minimum number of straight lines required to form the given figure is _____.

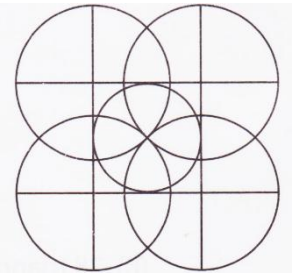
(a) 22 (b) 20
(c) 18 (d) 24

24. The minimum number of straight lines required to make the given figure is___.



(a) 23 (b) 22
(c) 17 (d) 18 **(SOF NSO 2016)**

25. How many semicircles are there in the given figure?



(a) 8 (b) 12
(c) 16 (d) 20 **(SOF IMO 2016)**

ANSWER - KEY									
1.	B	**2.**	C	**3.**	D	**4.**	B	**5.**	A
6.	A	**7.**	C	**8.**	B	**9.**	C	**10.**	C
11.	C	**12.**	C	**13.**	B	**14.**	D	**15.**	D
16.	B	**17.**	C	**18.**	D	**19.**	C	**20.**	D
21.	A	**22.**	A	**23.**	B	**24.**	C	**25.**	C

EXPLANATIONS

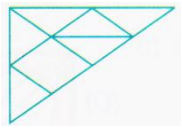
1. **(b) :** Add the numbers of horizontal, vertical and slanting lines.

2. **(c)** : Count the horizontal and slanting lines.

3. **(d):** There are 32 triangles in all.

6. **(a)**: The number of triangles in the following figure is 12.

7. **(c) :** The number of triangles in the following figure is 10.



8. (b): There are 3 and 6triangles respectively the above and below the chord of the circle.

9. **(c):** Use symmetry of the given figure.

12. **(c):** First count the triangles in left half or right half of the figure.

13. **(b):** First count the triangles on upper or lower half of the given figure.

14. **(d):** There are 12 + 5 = 17 squares in the interior of the outer large square.

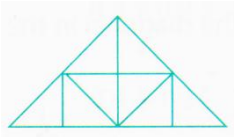
15. **(d):** There are 5 squares in the following figure.

The given figure has 14 squares.

17. (c): The four innermost squares together form another square.

19. (c): There are 8 triangles in the following figure.

20. (d): There are 17 triangles in the following figure.



21. **(a):** There are 18 triangles in the left half of the figure.