# CUBE AND DICE

**Directions :** A cube painted yellow on all faces is cut into 27 small cubes of equal sizes. Answer the questions that follow.

1. How many cubes are painted on one face only ?
   (1) 1      (2) 6      (3) 8      (4) 12

2. How many cube are not painted any face ?
   (1) 1      (2) 4      (3) 6      (4) 8

**Directions :** A cube is coloured red on all face. It is cut into 64 smaller cubes of equal size. Answer the following questions based on the statement ?

3. How many cubes have no face coloured ?
   (1) 24      (2) 16      (3) 8      (4) 0

4.. How many cubes are there which have only one face coloured ?
   (1) 4      (2) 8      (3) 16      (4) 24

5. How many cubes have two red opposite faces ?
   (1) 0      (2) 8      (3) 16      (4) 24

6. How many cubes have three faces coloured ?
   (1) 24      (2) 16      (3) 8      (4) 4

**Directions :** A cube is painted blue on all face is cut into 125 smaller cubes of equal size. Now answer the following questions :

7. How many cubes are not painted on any face ?
   (1) 8      (2) 16      (3) 18      (4) 27

8. How many cubes are painted on one face only ?
   (1) 8      (2) 16      (3) 36      (4) 54

**Directions :** A solid cube of each side 5 cms, has been painted red, blue and green on pairs of opposite faces. It is then cut into cubical blocks of each side 1 cm.
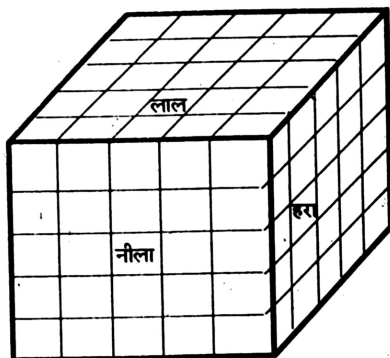


9. How many cubes have no face painted ?
   (1) 14      (2) 21      (3) 27      (4) 35

10. How many cubes have only one face painted ?
    (1) 27      (2) 49      (3) 54      (4) 84

11. How many cubes have only two faces painted ?
    (1) 24      (2) 36      (3) 48      (4) 60

12. How many cubes have only three faces painted ?
    (1) 8      (2) 12      (3) 16      (4) 20

13. How many cubes have three faces painted with different colours ?
    (1) 0      (2) 6      (3) 8      (4) 10

14. How many cubes have two faces painted red and green and all other faces unpainted ?
    (1) 8      (2) 12      (3) 16      (4) 20

15. How many cubes have only one face painted red and all other faces unpainted ?
    (1) 9      (2) 12      (3) 15      (4) 18

16. How many cubes have two face painted green ?
    (1) 8      (2) 12      (3) 16      (4) None

17. How many cubes have one face painted red and one face painted blue and other faces may be painted or unpainted ?
    (1) 8      (2) 12      (3) 16      (4) 20

18. How many cubes are three in all ?
    (1) 25      (2) 75      (3) 125      (4) 150

**Directions (Q. 37 - 46) :** A solid cube has been painted yellow, blue and black on pairs of opposite faces. The cube is then cut into 36 s,aller cube such that 32 cubes are of the same size whil 4 others are of bigger size. Also no face of any of the bigger cubes is painted blue.
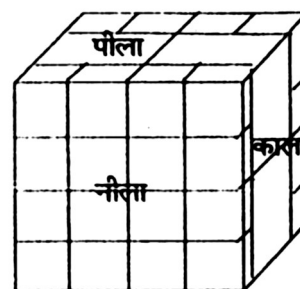


19. How many cubes have at least one face painted blue ?
    (1) 0      (2) 8      (3) 16      (4) 32

20. How many cubes have only one face painted ?
    (1) 0      (2) 4      (3) 8      (4) 12

21. How many cubes have only two faces painted ?
    (1) 24      (2) 20      (3) 16      (4) 8

22. How many cubes have two or more faces painted?
    (1) 24      (2) 20      (3) 16      (4) 8

23. How many cubes have only three faces painted ?
    (1) 8　　　　(2) 4　　　　(3) 2　　　　(4) 0
24. How many cubes do not have any of their faces painted yellow ?
    (1) 0　　　　(2) 4　　　　(3) 8　　　　(4) 16
25. How many cubes have at least one of their faces painted black ?
    (1) 0　　　　(2) 8　　　　(3) 16　　　　(4) 20
26. How many cubes have at least one of their faces painted yellow or blue ?
    (1) 36　　　　(2) 32　　　　(3) 16　　　　(4) 0
27. How many cubes have no face painted ?
    (1) 8　　　　(2) 4　　　　(3) 1　　　　(4) 0
28. How many cubes have two faces painted yellow and black respectively ?
    (1) 0　　　　(2) 8　　　　(3) 12　　　　(4) 16
29. What number is opposite. 6?



    (1) 1　　　　(2) 2　　　　(3) 4　　　　(4) 5

30. What number is opposite 3 ?



    (1) 1　　　　(2) 2　　　　(3) 4　　　　(4) 5
31. What number is the opposite 1 ?
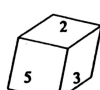


    (1) 2　　　　(2) 3　　　　(3) 4　　　　(4) 5
32. What number is opposite 3 ?



    (1) 1　　　　(2) 2　　　　(3) 34　　　　(4) 4

33. What number is opposite 3 ?



    (1) 3　　　　(2) 4　　　　(3) 5　　　　(4) 6
34. How many dots lie opposite 1 dot ?
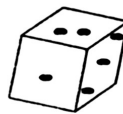


    (1) 2　　　　(2) 3　　　　(3) 5　　　　(4) 6

35. How many dots lie opposite 2 dots?



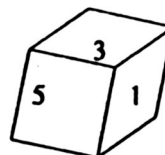    (1) 3　　　　(2) 4　　　　(3) 5　　　　(4) 6
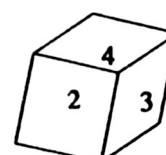36. What will be the number at the bottom if 6 is at the top ?
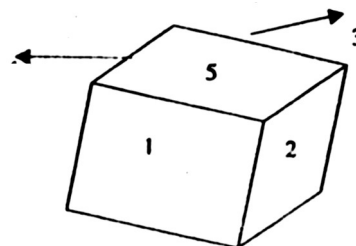


    (1) 2　　　　(2) 3　　　　(3) 4　　　　(4) 6
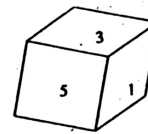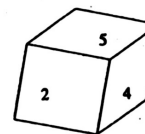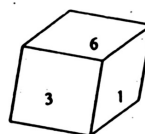37. If the cube is turned twice to the right ( → ) Which will be the three hidden number ?



    (1) 1,2,5　　　(2) 3,4,6　　　(3) 1,2,6　　　(4) 2,3,5
38. A dice after being thrown three times produces following result
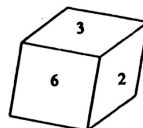


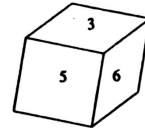    Which number will appear opposite to the number 3 ?
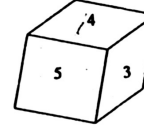    (1) 2　　　　(2) 5　　　　(3) 4　　　　(4) 6

**Direction : (Q 13 - 15)** Study the given positions of cube and answer the following questions.



(i)　　　　　　　　(ii)　　　　　　　　(iii)

39. Which number occurs on the face opposite to 2?
    (1) 1　　(2) 4　　(3) 5　　(4) Cannot be determined
40. The number on the face opposite to 6 is
    (1) 1　　(2) 4　　(3) 5　　(4) Cannot be determined
41. The number at the bottom face of fig (i) is
    (1) 1　　(2) 4　　(3) 5　　(4) Cannot be determined

# CUBE AND DICE

1. (2)   2. (1)   3. (3)   4. (4)   5. (1)
6. (3)   7. (4)   8. (4)   9. (3)   10. (3)
11. (2)  12. (1)  13. (3)  14. (2)  15. (4)
16. (4)  17. (4)  18. (3)  19. (4)  20. (3)
21. (2)  22. (3)  23. (1)  24. (4)  25. (4)
26. (1)  27. (4)  28. (3)  29. (1)  30. (2)
31. (4)  32. (4)  33. (3)  34. (4)  35. (3)
36. (2)  37. (4)  38. (3)  39. (3)  40. (2)
41. (1)