



12. Give the length and breadth of the rectangle whose area is  $25a^2 - 35a + 12$  ( )
- A)  $(5a + 4), (5a - 3)$                       B)  $(5a - 4), (5a + 3)$   
 C)  $(5a - 4), (5a - 3)$                       D)  $(5a + 4), (5a + 3)$

13. The coefficient of  $x^3$  in  $(2x - 3)(x^2 - 1 + 2x)$  is \_\_\_\_\_ ( )
- A) 4                      B) 2                      C) 3                      D) 1

14.  $(998)^3 =$  \_\_\_\_\_ ( )
- A) 990411929                      B) 994011992                      C) 990411992                      D) 940911992

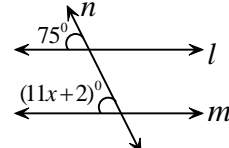
15. The number of dimensions of a solid is ( )
- A) 3                      B) 2                      C) 4                      D) 1

16. Sum of the interior angles of a triangle is  $180^\circ$  ( )
- A) Theorem                      B) Axiom                      C) Conjecture                      D) None

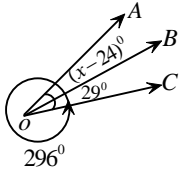
17. A point has \_\_\_\_\_ dimension ( )
- A) 1                      B)  $\infty$                       C) No                      D) None

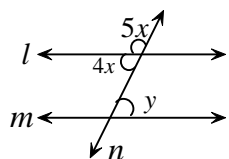
18. The word geometry is derived from ( )
- A) Greek                      B) Sanskrit                      C) English                      D) Latin

19.  ( )
- A)  $30^\circ$                       B)  $60^\circ$                       C)  $90^\circ$                       D)  $120^\circ$

20.  en     $x =$  \_\_\_\_\_ ( )
- A)  $\frac{11}{73}$                       B)  $\frac{73}{11}$                       C) 75                      D) 13

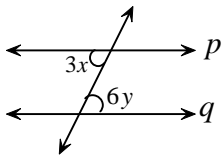
21. Angle between hands in the clock when the time is 6:00 ( )
- A)  $60^\circ$                       B)  $90^\circ$                       C)  $180^\circ$                       D)  $360^\circ$

22.   $x =$  \_\_\_\_\_ ( )
- A)  $59^\circ$                       B)  $64^\circ$                       C)  $53^\circ$                       D)  $60^\circ$

23. In the figure  $rl \parallel m$ , then the value of  $y$  is ( )
- 
- A)  $100^\circ$                       B)  $80^\circ$                       C)  $90^\circ$                       D)  $180^\circ$

24. The pair of angles  $35^\circ$  and  $55^\circ$  are called ( )

- A) supplementary      B) Complementary      C) Right      D) Linear pair

25.  In the figure  $p \parallel q$  then  $x : y =$  \_\_\_\_\_ ( )

- A) 1:2      B) p:q      C) 2:1      D) 5:4

26. The distance of a point from X-axis is called ( )

- A) X co-ordinate      B) obscissa      C) First co-ordinate      D) ordinate

27. The distance of a point on the Y-axis from Y-axis is ( )

- A) origin      B) O  
C) A point co-ordinates      D) None

28.  $(-8, 6)$  is in \_\_\_\_\_ ( )

- A)  $Q_1$       B)  $Q_4$       C)  $Q_2$       D)  $Q_3$

29. Comparing  $6x = 7y$  with linear equation, value of  $c$  is ( )

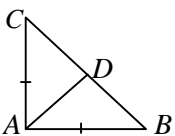
- A) 6      B) 7      C) 13      D) 0

30. The number of solutions to  $3x - 5y = 8$  is ( )

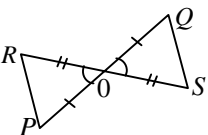
- A) 1      B) 2      C) 4      D) Many

31.  $-2x = \frac{-3}{5}y + 1$  in the linear form ( )

- A)  $10y - 3y + 5 = 0$       B)  $6x - 5y + 3 = 0$       C)  $3x - y = 0$       D)  $x - 3y = 0$

32.  ABC is a right angled triangle in which  $\angle A = 90^\circ$  and  $AB = AC$ .  $\angle B =$  \_\_\_\_\_

- A)  $\angle A$       B)  $\angle C$       C) Both      D) None

33.  In the figure  $PQ = RS$ ; bisect at 'O' then  $\triangle POR \cong \triangle QOS$  by ( )

- A) A.S.A      B) S.S.S      C) A.A.S      D) S.A.S

34.  $\triangle ABC$  is isosceles with sides  $AB = AC$ ; AD is the altitude, if  $\angle BAD = 50^\circ$  then  $\angle CAD =$  \_\_\_\_\_

- A)  $40^\circ$       B)  $130^\circ$       C)  $50^\circ$       D) None

35. In a right angled triangle \_\_\_\_\_ is the greatest side ( )

- A) hypotenuse      B) 10 cm      C)  $2^{100}$ cm      D) None

36. In a quadrilateral ABCD, the bisector of  $\angle C$  and  $\angle D$  intersect at O then  $\angle COD =$  \_\_\_\_\_ ( )

- A)  $\frac{1}{4}(\angle A + \angle B)$       B)  $\angle A + \angle B$       C)  $\frac{1}{2}(\angle A + \angle B)$       D) None

37. Angle between the diagonals of a rhombus is ( )

- A) a cute                      B) obtuse                      C) right angle                      D) None

38. Two adjacent sides of a parallelogram are 4.7cm and 6.3cm then its perimeter is ( )

- A) 11cm                      B) 5.5cm                      C) 22cm                      D) 29.51cm


39. The ratio of two consecutive angles of a Parallelogram is 2:3 then the greater angle is ( )

- A)  $104^\circ$                       B)  $90^\circ$                       C)  $120^\circ$                       D)  $108^\circ$

40.  $a^3 + b^3 + a + b =$  ( )

- A)  $(a+b)(a^2 + b^2 - ab + 1)$                       B)  $(a-b)(a^2 + b^2 - ab + 1)$   
 C)  $(a+b)(a^2 - b^2 + ab - 1)$                       D)  $(a+b)(a^2 - ab - b^2 - 1)$



- A)                       B)                       C)                       D) 

42. If  $7 * 1 = 64$ ;  $3 * 9 = 144$ . What is the value of  $5 * 6$ ? ( )

- A) 22                      B) 55                      C) 66                      D) 121

43. Which of the given options will come next in the given series? ZUA, XOC, VIE, TCG, \_\_\_? ( )

- A) RAI                      B) SAG                      C) RAG                      D) RWJ

44. Which of the following is a factor of  $(x + y)^3 - (x^3 + y^3)$  ( )

- A)  $x^2 + y^2 + 2xy$                       B)  $x^2 + y^2 - xy$                       C)  $xy^2$                       D)  $3xy$

45. If  $\frac{\sqrt{7}-1}{\sqrt{7}+1} - \frac{\sqrt{7}+1}{\sqrt{7}-1} = a + b\sqrt{7}$ , then find the values of  $a$  and  $b$  ( )

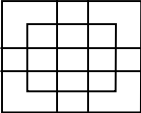
- A)  $a = 0, b = \frac{3}{2}$                       B)  $a = \frac{-3}{2}, b = 1$                       C)  $a = 0, b = \frac{-2}{3}$                       D)  $a = 4, b = 2$

46. If  $a + b + c = 9$  and  $a^2 + b^2 + c^2 = 35$ , then find the value of  $a^3 + b^3 + c^3 - 3abc$  ( )

- A) 52                      B) 108                      C) 216                      D) 182

47. 10, 19, 40, 77, 158, \_\_\_\_\_? ( )

- A) 311                      B) 307                      C) 301                      D) 299

48.  How many squares does the given figure contain? ( )

- A) 27                      B) 19                      C) 30                      D) None

49. If 'a' means 'plus', 'b' means 'minus', 'c' means 'multiplied by' and 'd' means 'divided by' then  $18c 14a 6b 16d 4 = ?$  ( )

- A) 63                      B) 254                      C) 288                      D) 1208

50. M13N, P16Q Z26 \_\_\_\_\_ ( )

- A) X                      B) Y                      C) A                      D) Z