

1. Value of $(a + 2)^2 = \underline{\hspace{2cm}}$ by using identity.

- a) $a^2 + 2ab + b^2$ b) $a^2 + 2b + 4$ c) $a^2 + 4a + 4$ d) $a^2 - 2b + 4$

2. Value of $31^2 = \underline{\hspace{2cm}}$. a) $(30 + 1)^2$ b) $(40 - 9)^2$ c) $(29 + 2)^2$ d) All the above

3. If $(a + b)^2 = 4ab$ then $a^2 + b^2 = \underline{\hspace{2cm}}$. a) $4ab$ b) $4a$ c) $2ab$ d) $-2ab$

4. Find the missing number $(? + d)(cx - d) = (cx)^2 - d^2$. a) xd b) cx c) $-cx$ d) x

5. The value of $(y + 8)^2$ if $y = 2$. a) 10 b) 100 c) 98 d) 14

6. If $\left(a - \frac{1}{a}\right)^2 = 4$ find the value of $a^2 + \frac{1}{a^2} = \underline{\hspace{2cm}}$. a) 6 b) 10 c) 5 d) 4

7. $\frac{p^2 - q^2}{(p + q)} = \underline{\hspace{2cm}}$. a) $(p + q)$ b) $(p^2 - q)^2$ c) $p - q$ d) $(q + p)^2$

8. $(y + 3)^2 = y^2 + 2x + 3xy + (3)^2$ is in the form of $\underline{\hspace{2cm}}$.

- a) $(a + b)^2 = a^2 + 2ab + b^2$ b) $(a - b)^2 = a^2 - 2ab + b^2$ c) $a^2 - b^2 = (a + b)(a - b)$ d) None of these

9. Value of $41^2 = \underline{\hspace{2cm}}$. a) 1681 b) 1481 c) 1281 d) 1381

10. $a^2 - b^2 = \underline{\hspace{2cm}}$. a) $(a + b)(a - b)$ b) $(a + b)(a + b)$ c) $(a - b)(a - b)$ d) None of these

11. The value of $(a + b)^2$ if $a = 2, b = 3$. a) 42 b) 52 c) 4 d) 25

12. $(a - b)^2 = a^2 + ? + b^2$. a) $-2abc$ b) $(-2ab)$ c) $(-2a)$ d) $-2bc$

13. If $(a + b)^2 = 25$ then value of $(a + b) = \underline{\hspace{2cm}}$. a) $\sqrt{25}$ b) 5 c) Both a & b d) 10

14. If $\left(x + \frac{1}{x}\right)^2 = 10$ the value of $x^2 + \frac{1}{x^2} = \underline{\hspace{2cm}}$. a) 4 b) 8 c) 9 d) 5

15. $(x + 6)(x - 6) = \underline{\hspace{2cm}}$. a) $x - 36$ b) $x^2 - 6$ c) $x^2 - 36$ d) $x^2 + 36$

16. If $10a^2 = 250$ find the value of $a \underline{\hspace{2cm}}$. a) 25 b) 20 c) 5 d) 50'

17. Find the value $(c + x)(c - x) = \underline{\hspace{2cm}}$. a) $(c - x)(c - x)$ b) $c^2 - x^2$ c) $x^2 - c^2$ d) $c^2 + x^2$

18. If $(d + 2)^2 = 100$ then the value of d is $\underline{\hspace{2cm}}$. a) 10 b) 8 c) 4 d) 6

19. (i) $(a + b)(a - b) = a^2 - b^2$ (ii) $a^2 - 2ab + b^2 = (a - b)^2$ (iii) $a^2 + 2ab + b^2 = a^2 + b^2$ (iv) $a^2 - 2ab + b^2 = a^2 - b^2$

from the above statements which is true.

- a) i & iv b) ii & iii c) i & ii d) iii & iv

20. For finding the value of $(69)^2$ which identity can be used (i) $(a + b)^2 = a^2 + 2ab + b^2$ (ii) $(a - b)^2 = a^2 - 2ab + b^2$

(iii) $(a + b)(a - b) = a^2 - b^2$

- a) only i b) only iii c) both i & ii d) both ii & iii

21. Which word means the 'directional property of the stone'?

- a) Stonelode b) Loadstone c) Lodestone d) None

22. Name the iron ore. a) Magnesia b) Magnesiumsite c) Magnetite d) Bauxite

23. What is the rectangular magnet called as?

- a) Bar magnet b) Rectangle magnet c) Cylindrical magnet d) Spherical magnet

24. Which type of magnet is tapered from the centre towards the ends?

- a) Magnetic needle b) Horse shoe magnet c) Bar magnet d) Cylindrical magnet

25. Name the device which is encased in a small brass box?

- a) Magnetic compass b) Magnetic needle c) Magnetic horse shoe d) Magnetic cylinder

26. $\underline{\hspace{2cm}}$ consists of a soft iron core with a wire wound around it.

- a) Magnetic needle b) Electromagnet c) Magnetic compass d) None

27. The end of magnet pointing out north direction is called as _____.
 a) East-seeking pole b) North-seeking pole c) South-seeking pole d) West-seeking pole
28. Like poles will _____. a) Repel b) Attract c) Both 'a' and 'b' d) Neither 'a' nor 'b'
29. How do magnetic poles always exist in? a) Singles b) Pairs c) Triples d) None
30. When a magnet is cut into 6 pieces, how many pairs of poles appear? a) 2 b) 8 c) 4 d) 6
31. Identify the odd one
 a) Magnetic shoe b) Bar magnet c) Horse shoe magnet d) Cylindrical magnet
32. By which means magnetism is tested? a) Repulsion b) Attraction c) Sublimation d) None
33. Laws of magnetic poles is (i) Like poles repel (ii) Unlike poles repel (iii) Like poles attract (iv) Unlike poles attract.
 Pick the correct statement. a) 'i' b) 'ii' c) both 'i' and 'iv' d) both 'ii' and 'iii'
34. Freely suspended magnet always shows _____, _____ direction.
 a) West, East b) North, East c) North, South d) South, West
35. Identify the odd one out _____.
 a) Electric cranes b) Tape recorder c) Electric motor d) Electric wire
36. Which is used to separate iron particles from solid mixtures?
 a) Gold b) Iron c) Magnet d) Copper
37. Which magnet is used in Dynamos? a) Temporary b) Manganese c) Permanent d) None
38. Electromagnets are used in _____. a) Speakers b) CD's c) Scissors d) None
39. Which can be used as a magnetic substance in magnetic induction method?
 a) Steel b) Aluminium c) Platinum d) Gold
40. Which type of magnets are used in 'electric cranes'?
 a) Bar magnets b) Electromagnets c) Horse shoe magnet d) Magnetic needle
41. _____ is the process of expressing information or ideas by word of mouth.
 a) Oral communication b) Written communication c) Gesture d) None of the above
42. _____ communication enables the speaker to gain attention to his / her audience.
 a) Mobile phone b) Mike c) Gestures d) Silence
43. Knives and spoons are placed on the _____ side of the plate.
 a) Right b) Left c) Both right and left d) None of the above
44. Small spoon at the top of the plate is for _____. a) Dessert b) Desert c) Soup d) both b & c
45. Avoid _____ in your food to cool down. a) Sipping b) Blowing c) Fanning d) Both b & a
46. Understanding and empathy for others is _____.
 a) Self awareness b) Cultural awareness c) Social awareness d) Political awareness
47. Many students lack effective _____ in dealing with adults.
 a) Social skill b) Personal skill c) Negotiation skill d) Patience
48. Personality development helps in the _____ development of an individual.
 a) Partly b) No c) Overall d) Less
49. _____ is a way to say who you are without having to speak.
 a) Dress b) Education c) Business d) Style
50. _____ emotion can be good when you are motivating yourself to find the solution.
 a) Laughter b) Dressing c) Anger d) None of the above