

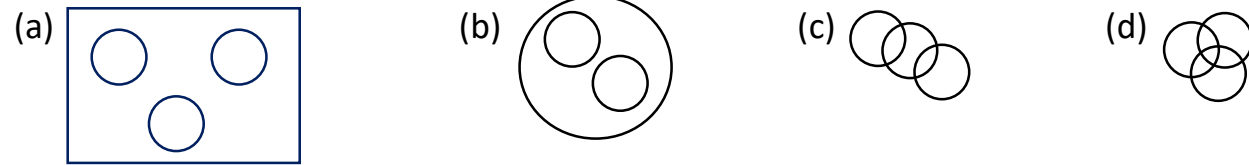
(a) SUMMIT (b) ASSURE (C) MANTLE (d) MASTER

40. If $38+15=66$ and $29+36=99$, then $82+44=?$

(a) 77 (b) 88 (c) 80 (d) 94

41. $3 \times 3=18$, $4 \times 4=32$, $7 \times 7=98$ then 6×6 is - (a) 12 (b) 36 (c) 46 (d) 72

42. Which one of the following diagrams represents the relationship of paper, stationery and ink?



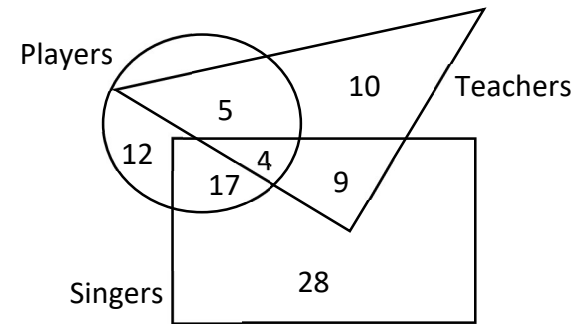
43. Find the missing number in the table -

(a) 10 (b) 20
(c) 22 (d) 110

36	64	100
6	8	10
12	16	?

44. From the figure, how many teachers are neither player nor singer?

(a) 5 (b) 10
(c) 4 (d) 9



45. The LCM of three different numbers is 120. Which of the following can not be their HCF?

(a) 8 (b) 12 (c) 24 (d) 35

46. Ascending order of $\frac{10}{13}, \frac{12}{17}, \frac{5}{6}$ and $\frac{11}{21}$ is -

(a) $\frac{10}{13}, \frac{12}{17}, \frac{5}{6}, \frac{11}{21}$ (b) $\frac{11}{21}, \frac{12}{17}, \frac{10}{13}, \frac{5}{6}$ (c) $\frac{5}{6}, \frac{10}{13}, \frac{11}{21}, \frac{12}{17}$ (d) $\frac{5}{6}, \frac{10}{13}, \frac{12}{17}, \frac{11}{21}$

47. A person expense $\frac{1}{4}$ part of his income on food, $\frac{2}{3}$ part on house rent and remaining Rs. 630 on other items. Find his house rent.

(a) Rs. 2050 (b) Rs. 5040 (c) Rs. 1000 (d) none

48. $\frac{1}{3} + \frac{1}{15} + \frac{1}{35} + \frac{1}{63} + \frac{1}{99}$ is equal to -

(a) $\frac{10}{11}$ (b) $\frac{5}{11}$ (c) $\frac{9}{11}$ (d) $\frac{7}{11}$

49. Find the cube root of 9261. (a) 22 (b) 23 (c) 21 (d) 24

50. What is the square root of 151321?

(a) 389 (b) 386 (c) 384 (d) 400

← x →



MATHEMATICS TALENT HUNT 2023

Organized by : The Pi Group of Mathematics(TPGM), Cooch Behar

Registration No. - S0031696 of 2022-23

Class - VII

Full Mark : 100

Time : 2 Hours.

Instructions

1. There are 50 question of 2 marks each.
2. Put tick mark (✓) only on the correct alternative against each question in your answer sheet.
3. There is no negative marking.

1. $\begin{array}{cc} 4 & 3 \\ & 14 \end{array}$ $\begin{array}{cc} 11 & 9 \\ & 9801 \end{array}$ $\begin{array}{cc} 15 & 6 \\ & ? \end{array}$

(a) 1216 (b) 2250 (c) 8100 (d) 11036

2. A family has a man and his wife, their four sons and their wives. The family of every sons has three sons and one daughter. Find out the total number of male members in the whole family.

(a) 4 (b) 8 (c) 12 (d) 17

3. Choose the group of letters which is different from others.

(a) BD (b) IK (c) PN (d) SU

4. If a and b are odd numbers then, which of the following is even?

(a) $a+b+ab$ (b) $a+b-1$ (c) $a+b+1$ (d) $a+b+2ab$

5. Find the LCM of 0.60, 9.60 and 0.12 .

(a) 9.60 (b) 0.12 (c) 0.6 (d) none

6. The value of $3 + \frac{3}{3 + \frac{1}{3 + \frac{1}{3}}}$ is - (a) $\frac{40}{11}$ (b) $\frac{43}{11}$ (c) $\frac{46}{11}$ (d) $\frac{41}{11}$

7. The least among the fraction $\frac{15}{16}, \frac{19}{20}, \frac{24}{25}, \frac{34}{35}$ is - (a) $\frac{34}{35}$ (b) $\frac{15}{16}$ (c) $\frac{19}{20}$ (d) $\frac{24}{25}$

8. If $1\frac{2}{3} \div \frac{2}{7} \times \frac{x}{7} = 1\frac{1}{4} \times \frac{2}{3} \div \frac{1}{6}$, then find the value of x.

(a) 0.006 (b) $\frac{1}{6}$ (c) 0.6 (d) 6

9. Which one is greatest out of $\sqrt{2}, \sqrt[6]{3}, \sqrt[3]{4}$ and $\sqrt[4]{5}$?

(a) $\sqrt[3]{4}$ (b) $\sqrt[4]{5}$ (c) $\sqrt{2}$ (d) $\sqrt[6]{3}$

10. If $a = \frac{\sqrt{3}}{2}$ then the value of $\sqrt{1+a} + \sqrt{1-a}$ is -

(a) $2-\sqrt{3}$ (b) $2+\sqrt{3}$ (c) $\frac{\sqrt{3}}{2}$ (d) $\sqrt{3}$

11. $\sqrt[3]{1 - \frac{127}{343}}$ is equals to - (a) $\frac{5}{9}$ (b) $1 - \frac{1}{7}$ (c) $\frac{4}{7}$ (d) $1 - \frac{2}{7}$
12. Evaluate : $\frac{\sqrt{248 + \sqrt{51 + \sqrt{169}}}}{\sqrt{64}}$. (a) 8 (b) 16 (c) 4 (d) 2
13. If $\frac{\sqrt{1296}}{x} = \frac{x}{2.25}$, then what is value of x ? (a) 6 (b) 8 (c) 7 (d) 9
14. $\frac{\frac{1}{5} + 999\frac{494}{495} \times 99}{4}$ is equal to - (a) 25000 (b) 24225 (c) 24800 (d) 24750
15. If $a^2 + b^2 = 234$ and $ab = 108$, then what is value of $\frac{a+b}{a-b}$?
(a) 10 (b) 8 (c) 5 (d) 4
16. If $\frac{m}{n} = \frac{3}{4}$ and $16m + 10n = 44$, then what is the value of m ?
(a) $1\frac{1}{2}$ (b) $2\frac{1}{2}$ (c) $3\frac{1}{2}$ (d) $4\frac{1}{2}$
17. Simplify : $(4.8 \times 1.8 \div 3.6 + 5.4 \text{ of } \frac{1}{9} - \frac{1}{5})$ (a) 2.8 (b) 3.1 (c) 2.1 (d) 1.8
18. $\frac{(736+278)^2 + (736-278)^2}{736 \times 736 + 278 \times 278}$ is equal to - (a) 1 (b) 4 (c) 3 (d) 2
19. Simplify : $4 - [6 - \{12 - (10 - \overline{8 - 6})\}]$. (a) 4 (b) 0 (c) 2 (d) 1
20. $(2 - \frac{1}{3})(2 - \frac{3}{5})(2 - \frac{5}{7}) \dots (2 - \frac{997}{999})$ is equals to -
(a) $\frac{1001}{999}$ (b) $\frac{999}{1001}$ (c) $\frac{1001}{3}$ (d) $\frac{5}{1001}$
21. $\frac{896 \div 56 \times 8 + 12}{5^3 - (6^2 + 19)}$ is equals to - (a) 130 (b) 140 (c) 6 (d) 2
22. Find the missing number in the following series- 12, 15, 21, 30, 42, 57, ?
(a) 59 (b) 63 (c) 65 (d) 75
23. Harsh is 40 years old and Rajeev is 60 years old. How many years ago was the ratio of their ages 3:5 ?
(a) 10 (b) 20 (c) 37 (d) 5
24. Find the amount of Rs. 2,500 invested at 12% per annum during the period from 4th February, 2005 to 18th April, 2005.
(a) 3000 (b) 3800 (c) 2560 (d) 2600
25. 10 person can do a job in 20 days. How many persons are required to do the same job in 40 days?
(a) 5 (b) 6 (c) 10 (d) 8

26. A student walks from his house at $2\frac{1}{2}$ km/h and reached his school late by 6 min. Next day he increases his speed by 1 km/h and reached school 6 min before the school time. How far is the school from his house?

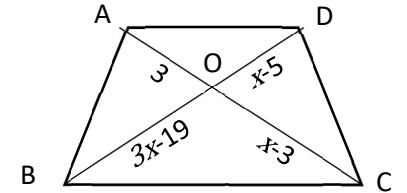
- (a) $\frac{5}{4}$ km (b) $\frac{7}{4}$ km (c) $\frac{9}{4}$ km (d) $\frac{11}{4}$ km

27. If $\frac{x}{y} - \frac{y}{x} = -1$ and $x, y \neq 0$, then $2(x^3 - y^3)$ is equals to -

- (a) 0 (b) 1 (c) -1 (d) 2

28. In the given figure AD || BC. Find the value of x .

- (a) 6, 5 (b) 7, 8 (c) 8, 9 (d) 4, 5



29. Find the area of a triangle whose sides are 26 cm, 28 cm and 30 cm.

- (a) 336 sq. cm (b) 106 sq. cm (c) 416 sq. cm (d) 307 sq. cm

30. The radius of a circular playground is 63 meter. Find its area. (Assume that $\pi = \frac{22}{7}$)

- (a) 11752 sq. m (b) 12474 sq. m (c) 10748 sq. m (d) 1000 sq. m

31. Find the number of diagonals in a rectangular polygon having 12 sides.

- (a) 56 (b) 54 (c) 60 (d) 40

32. If the length, breadth and height of a box are 6 cm, 5cm and 3 cm respectively then, the volume of the box is - (a) 50 cm^3 (b) 60 cm^3 (c) 40 cm^3 (d) 90 cm^3

33. The surface area of a sphere is 616 sq. meter. What will be its diameter?

- (a) 14 cm (b) 18 cm (c) 9 cm (d) 12 cm

34. Reading : Knowledge :: Work : ?

- (a) Engagement (b) Employment (c) Experience (d) Experiment

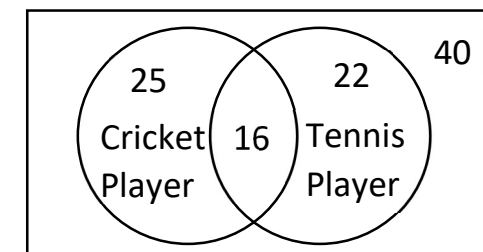
35. $85 : 40 :: 77 : ?$ (a) 14 (b) 50 (c) 48 (d) 49

36. In the following question, select the one which is different from other three responses.

- (a) Shimla (b) Darjeeling (c) Ooty (d) Agra

37. Find out from the diagram the number of people who did not play game.

- (a) 9 (b) 24
(c) 18 (d) 15



38. What is the product of the all the numbers in the dial of a telephone?

- (a) 158480 (b) 159450 (c) 159480 (d) none

39. From the given alternative words, select the word which can be built using the letters of the given word. "MEASUREMENT"