VIKRAMADITYA ACADEMY

SAINIK SCHOOL • MILITARY SCHOOL • RIMC COACHING

CHAPTER-WISE

PDF NOTES

MATHEMATICS BY NARESH SIR



π $a^2+b^2=c^2$ $f(x)=ax^2+bx+c$

$x=\frac{-b\pm\sqrt{b^2-4ac}}{2a}$ $\sin\theta=\frac{op}{hyp}$ $\sum_{i=1}^{n} i=\frac{n(n+1)}{2}$ $A=\pi r^2$

VIKRAMADITYA ACADEMY

CHAPTER: MATHS QUESTION BANK

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MATHEMATICS QUESTION BANK

Chapter-wise and Level-wise Questions · Level 1 Basic · Level 2 Standard · Level 3 RIMC Advanced · Answer Key at the end of each chapter

No.	Chapter	From notes	L1	L2	L3	Total
1	Rational Numbers	Ch01	174	42	11	227
2	Number System	Ch22	28	50	8	86
3	Squares and Square Roots	Ch02	71	72	27	170
4	Exponents and Powers	Ch03, Ch23	105	76	24	205
5	Rationalisation	Ch24	16	47	24	87
6	Algebraic Expressions and Identities	Ch05, Ch20, Ch25	305	218	85	608
7	Factorisation of Algebraic Expressions	Ch26	47	37	5	89
8	Division of Algebraic Expressions	Ch21	209	41	24	274
9	Linear Equations in One Variable	Ch06, Ch16	112	82	20	214
10	Direct and Inverse Variation	Ch04	83	17	17	117
11	Percentage	Ch07	29	30	11	70
12	Profit, Loss, Discount and VAT	Ch18	28	79	37	144
13	Compound Interest	Ch19	27	69	29	125

14	Lines and Angles	Ch33	60	152	51	263
15	Practical Geometry and Quadrilaterals	Ch08	30	25	30	85
16	Cyclic Quadrilaterals	Ch34	71	98	44	213
17	Coordinate Geometry	Ch27	48	7	26	81
18	Data Handling	Ch09, Ch09, Ch09	20	37	8	65
19	Mean, Median and Mode	Ch17	47	50	8	105
20	Mensuration — Area of Plane Figures	Ch10, Ch12, Ch15	91	160	43	294
21	Heron's Formula	Ch28	15	55	20	90
22	Surface Area and Volume of Cube and Cuboid	Ch11, Ch14, Ch29	94	134	65	293
23	Surface Area and Volume of Cylinder	Ch13, Ch30	71	127	40	238
24	Surface Area and Volume of Cone	Ch31	24	58	13	95
25	Surface Area and Volume of Sphere	Ch32	44	59	13	116

Total questions: **4354**. Chapters that appeared under more than one name in the notes are merged.

CHAPTER 1 · RATIONAL NUMBERS

227 Questions

LEVEL 1 · BASIC (174)

1. Add $\frac{5}{12}$ and $\frac{3}{8}$.

2. Add $\frac{7}{9}$ and 4.

3. Add $\frac{3}{8}$ and $\frac{-5}{12}$.

4. Simplify: $\frac{8}{-15}+\frac{4}{-3}$

5. Simplify: $\frac{7}{-26}+\frac{16}{39}$

6. Simplify: $\frac{-4}{7}+\frac{7}{6}+\frac{2}{7}+3+\frac{-11}{6}$

7. Rearrange suitably and find the sum:

$\frac{5}{12}+\frac{2}{7}+\frac{1}{8}+\frac{7}{12}+\frac{9}{7}-\frac{5}{16}$

8. Subtract $\frac{3}{4}$ from $\frac{5}{6}$.

9. The sum of two numbers is $\frac{5}{9}$. If one of the numbers is $\frac{1}{3}$, find the other number.

10. What should be added to $\frac{-7}{8}$ so as to get $\frac{5}{9}$?

11. Find $\frac{3}{7}+\left(\frac{-6}{11}\right)+\frac{8}{21}+\left(\frac{-5}{22}\right)$

12. Find $\frac{-7}{4}+\frac{5}{3}+\frac{-5}{6}+\frac{1}{3}+\frac{-1}{2}$

13. Solve: $\frac{6}{7}-2+\frac{-7}{9}+\frac{19}{21}$

14. Multiply $\frac{-7}{4}\times\frac{-3}{5}$

15. Divide: $\frac{2}{3}\div\frac{5}{6}$

16. The product of two rational numbers is $\frac{-28}{81}$ and one of the numbers is $\frac{14}{27}$. Find the other number.

17. By what number should we multiply $\frac{3}{-14}$ so that the product may be $\frac{5}{12}$?

18. Find 5 rational numbers between $\frac{-3}{2}$ and $\frac{5}{3}$.

19. Find 5 rational numbers between $\frac{-2}{3}$ and $\frac{1}{4}$.

20. $\frac{3}{5}+\frac{-7}{6}+\frac{2}{5}+\frac{-5}{6}$

21. $\frac{4}{3}+\frac{-4}{5}+\frac{-2}{3}+\frac{7}{5}-2$

22. $\frac{5}{3}+\frac{11}{2}+\frac{-9}{4}+\frac{-8}{3}+\frac{-7}{2}$

23. $\frac{-4}{7}+\frac{7}{6}+\frac{2}{7}+3+\frac{-11}{6}$

24. $\frac{-11}{5}$ and $\frac{4}{7}$

25. $\frac{4}{9}$ and $\frac{7}{-12}$

26. $\frac{-3}{5}$ and $\frac{-2}{-15}$

27. $\frac{2}{-7}$ and $\frac{12}{-35}$

28. 4 and $\frac{-3}{5}$

29. -4 and $\frac{4}{-7}$