S.S.L.C State level Mathematics key 2025

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I

1. B) 3
2. A) 7
3. c) Parallel lines
4. B) $V = \frac{4}{3}\pi r^3$ cubic units
5. D) 1
6. A) 0
7. c) 110°
8. D) $\sqrt{a^2+b^2}$

II

9. It is a line that intersects a circle at two distinct points
10. B.P.T statement
11. $\angle RPQ = 50^\circ$
12. $\pi r(r+l)$ sq units
13. 20-30
14. $a_2 = 8$
15. 132 cm^2
16. 2

III

17. $\sqrt{3} = \frac{a-5b}{b}$
18. $x=6, y=2$
19. $x^2 - 3x - 4$
20. $x = -2$ (or) $x = \frac{3}{2}$
21. $S_{20} = 820$ (or) 128 (105, 112, ... 994)
22. $\cos\alpha = \frac{12}{13}$ & $\cot\alpha = \frac{12}{5}$
23. $d = 3\sqrt{2}$ units
24. $\frac{5}{8}$ (or) $\frac{132}{144}$

IV

25. $510 = 2\times3\times5\times17$, $92 = 2\times2\times23$
    $H = 2, L = 23460$
    $46920 = 46920$
26. $\alpha = \frac{-1}{3}$, $\beta = \frac{3}{2}$
    $\frac{7}{6}, \frac{-1}{2}$
27. 20
    (or)
    $x^2 - 20x + 112 = 0$
    Not possible (-48)
28. $EC = 9$ cm, $DE : BC = 2:5$
    (or)
    Proof
29. Theorem
30. Proof (or) $\frac{63}{19}$
31. Mean = 12 (or) Mode = 16
32. $\frac{m_1}{m_2} = \frac{1}{1}$, $x = \frac{-3}{2}$
33. 56 cm^2 (154-98)

V

34. $x=2, y=2$
35. Theorem
36. 73.92 cm^2 ($l = 3.5$)
37. $-4, 1, 6, 11, ----$
    $52 = 52$
38. 122, 127, 132
    ($a = -13, d = 5$)

VI

39. $AB = 10\sqrt{3}$ m
    $AD = 10\sqrt{6}$ m
    $AC = 20\sqrt{3}$ m
    $AE = 20$ m

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