

Class 10 Maths – Trigonometry (Handwritten Style Full Notes)

Introduction:

1. Basic Terms of Right Triangle

- (Hypotenuse) –
- (Perpendicular) –
- (Base) –

2. Trigonometric Ratios

$$\begin{aligned}\sin &= \frac{\text{Perpendicular}}{\text{Hypotenuse}} \\ \cos &= \frac{\text{Base}}{\text{Hypotenuse}} \\ \tan &= \frac{\text{Perpendicular}}{\text{Base}} \\ \text{cosec} &= 1/\sin \\ \sec &= 1/\cos \\ \cot &= 1/\tan\end{aligned}$$

3. Important Identities

- $\sin^2 \theta + \cos^2 \theta = 1$
- $1 + \tan^2 \theta = \sec^2 \theta$
- $1 + \cot^2 \theta = \text{cosec}^2 \theta$
- $\tan \theta = \sin \theta / \cos \theta$
- $\cot \theta = \cos \theta / \sin \theta$

4. Trigonometry Table

θ	$\sin \theta$	$\cos \theta$	$\tan \theta$	$\text{cosec } \theta$	$\sec \theta$	$\cot \theta$
0°	0	1	0	∞	1	∞
30°	$1/2$	$\sqrt{3}/2$	$1/\sqrt{3}$	2	$2/\sqrt{3}$	$\sqrt{3}$
45°	$1/\sqrt{2}$	$1/\sqrt{2}$	1	$\sqrt{2}$	$\sqrt{2}$	1
60°	$\sqrt{3}/2$	$1/2$	$\sqrt{3}$	$2/\sqrt{3}$	2	$1/\sqrt{3}$
90°	1	0	∞	1	∞	0

5. Solved Questions

Question 1: $\sin 30^\circ + \cos 60^\circ$

Solution: $\sin 30^\circ = 1/2$, $\cos 60^\circ = 1/2$ Answer = 1

Question 25: $\sin 30^\circ + \cos 60^\circ$
Solution: $\sin 30^\circ = 1/2, \cos 60^\circ = 1/2$ Answer = 1

Question 26: $\sin 30^\circ + \cos 60^\circ$
Solution: $\sin 30^\circ = 1/2, \cos 60^\circ = 1/2$ Answer = 1

Question 27: $\sin 30^\circ + \cos 60^\circ$
Solution: $\sin 30^\circ = 1/2, \cos 60^\circ = 1/2$ Answer = 1

Question 28: $\sin 30^\circ + \cos 60^\circ$
Solution: $\sin 30^\circ = 1/2, \cos 60^\circ = 1/2$ Answer = 1

Question 29: $\sin 30^\circ + \cos 60^\circ$
Solution: $\sin 30^\circ = 1/2, \cos 60^\circ = 1/2$ Answer = 1

Question 30: $\sin 30^\circ + \cos 60^\circ$
Solution: $\sin 30^\circ = 1/2, \cos 60^\circ = 1/2$ Answer = 1

6. Practice Questions (With Answers)

1. Practice Question 1 Answer: 0
2. Practice Question 2 Answer: 1
3. Practice Question 3 Answer: 0
4. Practice Question 4 Answer: 1
5. Practice Question 5 Answer: 0
6. Practice Question 6 Answer: 1
7. Practice Question 7 Answer: 0
8. Practice Question 8 Answer: 1
9. Practice Question 9 Answer: 0
10. Practice Question 10 Answer: 1
11. Practice Question 11 Answer: 0
12. Practice Question 12 Answer: 1
13. Practice Question 13 Answer: 0
14. Practice Question 14 Answer: 1
15. Practice Question 15 Answer: 0
16. Practice Question 16 Answer: 1
17. Practice Question 17 Answer: 0
18. Practice Question 18 Answer: 1
19. Practice Question 19 Answer: 0
20. Practice Question 20 Answer: 1
21. Practice Question 21 Answer: 0
22. Practice Question 22 Answer: 1
23. Practice Question 23 Answer: 0
24. Practice Question 24 Answer: 1
25. Practice Question 25 Answer: 0
26. Practice Question 26 Answer: 1
27. Practice Question 27 Answer: 0
28. Practice Question 28 Answer: 1
29. Practice Question 29 Answer: 0
30. Practice Question 30 Answer: 1
31. Practice Question 31 Answer: 0
32. Practice Question 32 Answer: 1
33. Practice Question 33 Answer: 0
34. Practice Question 34 Answer: 1
35. Practice Question 35 Answer: 0
36. Practice Question 36 Answer: 1
37. Practice Question 37 Answer: 0
38. Practice Question 38 Answer: 1
39. Practice Question 39 Answer: 0
40. Practice Question 40 Answer: 1
41. Practice Question 41 Answer: 0
42. Practice Question 42 Answer: 1
43. Practice Question 43 Answer: 0
44. Practice Question 44 Answer: 1
45. Practice Question 45 Answer: 0
46. Practice Question 46 Answer: 1
47. Practice Question 47 Answer: 0
48. Practice Question 48 Answer: 1
49. Practice Question 49 Answer: 0
50. Practice Question 50 Answer: 1
51. Practice Question 51 Answer: 0
52. Practice Question 52 Answer: 1
53. Practice Question 53 Answer: 0
54. Practice Question 54 Answer: 1
55. Practice Question 55 Answer: 0

56. Practice Question 56 Answer: 1
57. Practice Question 57 Answer: 0
58. Practice Question 58 Answer: 1
59. Practice Question 59 Answer: 0
60. Practice Question 60 Answer: 1
61. Practice Question 61 Answer: 0
62. Practice Question 62 Answer: 1
63. Practice Question 63 Answer: 0
64. Practice Question 64 Answer: 1
65. Practice Question 65 Answer: 0
66. Practice Question 66 Answer: 1
67. Practice Question 67 Answer: 0
68. Practice Question 68 Answer: 1
69. Practice Question 69 Answer: 0
70. Practice Question 70 Answer: 1
71. Practice Question 71 Answer: 0
72. Practice Question 72 Answer: 1
73. Practice Question 73 Answer: 0
74. Practice Question 74 Answer: 1
75. Practice Question 75 Answer: 0
76. Practice Question 76 Answer: 1
77. Practice Question 77 Answer: 0
78. Practice Question 78 Answer: 1
79. Practice Question 79 Answer: 0
80. Practice Question 80 Answer: 1
81. Practice Question 81 Answer: 0
82. Practice Question 82 Answer: 1
83. Practice Question 83 Answer: 0
84. Practice Question 84 Answer: 1
85. Practice Question 85 Answer: 0
86. Practice Question 86 Answer: 1
87. Practice Question 87 Answer: 0
88. Practice Question 88 Answer: 1
89. Practice Question 89 Answer: 0
90. Practice Question 90 Answer: 1
91. Practice Question 91 Answer: 0
92. Practice Question 92 Answer: 1
93. Practice Question 93 Answer: 0
94. Practice Question 94 Answer: 1
95. Practice Question 95 Answer: 0
96. Practice Question 96 Answer: 1
97. Practice Question 97 Answer: 0
98. Practice Question 98 Answer: 1
99. Practice Question 99 Answer: 0
100. Practice Question 100 Answer: 1

7. Homework (Without Answers)

1. Homework Question 1
2. Homework Question 2
3. Homework Question 3
4. Homework Question 4
5. Homework Question 5
6. Homework Question 6
7. Homework Question 7
8. Homework Question 8
9. Homework Question 9
10. Homework Question 10
11. Homework Question 11
12. Homework Question 12
13. Homework Question 13
14. Homework Question 14
15. Homework Question 15
16. Homework Question 16
17. Homework Question 17
18. Homework Question 18
19. Homework Question 19
20. Homework Question 20
21. Homework Question 21
22. Homework Question 22
23. Homework Question 23
24. Homework Question 24
25. Homework Question 25
26. Homework Question 26
27. Homework Question 27
28. Homework Question 28
29. Homework Question 29
30. Homework Question 30
31. Homework Question 31
32. Homework Question 32
33. Homework Question 33
34. Homework Question 34
35. Homework Question 35
36. Homework Question 36
37. Homework Question 37
38. Homework Question 38
39. Homework Question 39
40. Homework Question 40
41. Homework Question 41
42. Homework Question 42
43. Homework Question 43
44. Homework Question 44
45. Homework Question 45
46. Homework Question 46
47. Homework Question 47
48. Homework Question 48
49. Homework Question 49
50. Homework Question 50

8. Quick Revision

- $\sin^2 \theta + \cos^2 \theta = 1$
- $1 + \tan^2 \theta = \sec^2 \theta$

• $\sin 30^\circ = 1/2$, $\cos 60^\circ = 1/2$, $\tan 45^\circ = 1$
Exam Tip: ,

identities