EduSahara™ Assignment

Name : Trigonometric ratios in terms of other ratios

Chapter : Introduction to Trigonometry

Grade : CBSE Grade X

1. Express $\sin\theta$ in terms of $\cos\theta$

(i) $\sqrt{1-\cos^2\theta}$ (ii) $\frac{1}{\sqrt{1-\cos^2\theta}}$ (iii) $\frac{1}{\cos\theta}$ (iv) $\frac{\cos\theta}{\sqrt{1-\cos^2\theta}}$ (v) $\frac{\sqrt{1-\cos^2\theta}}{\cos\theta}$

2. Express $\sin\theta$ in terms of $\tan\theta$

(i) $\frac{1}{\tan\theta}$ (ii) $\sqrt{1+\tan^2\theta}$ (iii) $\frac{\sqrt{1+\tan^2\theta}}{\tan\theta}$ (iv) $\frac{1}{\sqrt{1+\tan^2\theta}}$ (v) $\frac{\tan\theta}{\sqrt{1+\tan^2\theta}}$

3. Express $\sin\theta$ in terms of $\cot\theta$

(i) $\frac{1}{\cot\theta}$ (ii) $\frac{\cot\theta}{\sqrt{1+\cot^2\theta}}$ (iii) $\frac{1}{\sqrt{1+\cot^2\theta}}$ (iv) $\frac{\sqrt{1+\cot^2\theta}}{\cot\theta}$ (v) $\sqrt{1+\cot^2\theta}$

4. Express $\sin\theta$ in terms of $\sec\theta$

(i) $\frac{\sqrt{\sec^2\theta-1}}{\sec\theta}$ (ii) $\sqrt{\sec^2\theta-1}$ (iii) $\frac{1}{\sec\theta}$ (iv) $\frac{\sec\theta}{\sqrt{\sec^2\theta-1}}$ (v) $\frac{1}{\sqrt{\sec^2\theta-1}}$

5. Express $\sin\theta$ in terms of $\operatorname{cosec}\theta$

(i) $\frac{1}{\sqrt{\operatorname{cosec}^2\theta-1}}$ (ii) $\frac{1}{\operatorname{cosec}\theta}$ (iii) $\frac{\operatorname{cosec}\theta}{\sqrt{\operatorname{cosec}^2\theta-1}}$ (iv) $\sqrt{\operatorname{cosec}^2\theta-1}$ (v) $\frac{\sqrt{\operatorname{cosec}^2\theta-1}}{\operatorname{cosec}\theta}$

6. Express $\cos\theta$ in terms of $\sin\theta$

(i) $\frac{1}{\sqrt{1-\sin^2\theta}}$ (ii) $\frac{\sin\theta}{\sqrt{1-\sin^2\theta}}$ (iii) $\frac{1}{\sin\theta}$ (iv) $\frac{\sqrt{1-\sin^2\theta}}{\sin\theta}$ (v) $\sqrt{1-\sin^2\theta}$

7. Express $\cos\theta$ in terms of $\tan\theta$

(i) $\frac{\sqrt{1+\tan^2\theta}}{\tan\theta}$ (ii) $\frac{1}{\sqrt{1+\tan^2\theta}}$ (iii) $\frac{1}{\tan\theta}$ (iv) $\frac{\tan\theta}{\sqrt{1+\tan^2\theta}}$ (v) $\sqrt{1+\tan^2\theta}$

8. Express $\cos\theta$ in terms of $\cot\theta$

(i) $\frac{\sqrt{1+\cot^2\theta}}{\cot\theta}$ (ii) $\frac{1}{\cot\theta}$ (iii) $\frac{1}{\sqrt{1+\cot^2\theta}}$ (iv) $\sqrt{1+\cot^2\theta}$ (v) $\frac{\cot\theta}{\sqrt{1+\cot^2\theta}}$

9. Express $\cos\theta$ in terms of $\sec\theta$

(i) $\frac{\sqrt{\sec^2\theta-1}}{\sec\theta}$ (ii) $\frac{\sec\theta}{\sqrt{\sec^2\theta-1}}$ (iii) $\sqrt{\sec^2\theta-1}$ (iv) $\frac{1}{\sqrt{\sec^2\theta-1}}$ (v) $\frac{1}{\sec\theta}$

10. Express $\cos\theta$ in terms of $\operatorname{cosec}\theta$

(i) $\frac{1}{\sqrt{\operatorname{cosec}^2\theta-1}}$ (ii) $\frac{\sqrt{\operatorname{cosec}^2\theta-1}}{\operatorname{cosec}\theta}$ (iii) $\sqrt{\operatorname{cosec}^2\theta-1}$ (iv) $\frac{1}{\operatorname{cosec}\theta}$ (v) $\frac{\operatorname{cosec}\theta}{\sqrt{\operatorname{cosec}^2\theta-1}}$

11. Express $\tan\theta$ in terms of $\sin\theta$

(i) $\frac{1}{\sin\theta}$ (ii) $\sqrt{1-\sin^2\theta}$ (iii) $\frac{\sin\theta}{\sqrt{1-\sin^2\theta}}$ (iv) $\frac{1}{\sqrt{1-\sin^2\theta}}$ (v) $\frac{\sqrt{1-\sin^2\theta}}{\sin\theta}$

12. Express $\tan\theta$ in terms of $\cos\theta$

(i) $\frac{1}{\sqrt{1-\cos^2\theta}}$ (ii) $\sqrt{1-\cos^2\theta}$ (iii) $\frac{1}{\cos\theta}$ (iv) $\frac{\cos\theta}{\sqrt{1-\cos^2\theta}}$ (v) $\frac{\sqrt{1-\cos^2\theta}}{\cos\theta}$

13. Express $\tan\theta$ in terms of $\cot\theta$

(i) $\sqrt{1+\cot^2\theta}$ (ii) $\frac{1}{\cot\theta}$ (iii) $\frac{\cot\theta}{\sqrt{1+\cot^2\theta}}$ (iv) $\frac{\sqrt{1+\cot^2\theta}}{\cot\theta}$ (v) $\frac{1}{\sqrt{1+\cot^2\theta}}$

14. Express $\tan\theta$ in terms of $\sec\theta$

(i) $\frac{1}{\sec\theta}$ (ii) $\frac{\sqrt{\sec^2\theta-1}}{\sec\theta}$ (iii) $\sqrt{\sec^2\theta-1}$ (iv) $\frac{\sec\theta}{\sqrt{\sec^2\theta-1}}$ (v) $\frac{1}{\sqrt{\sec^2\theta-1}}$

15. Express $\tan\theta$ in terms of $\operatorname{cosec}\theta$

(i) $\frac{\sqrt{\operatorname{cosec}^2\theta-1}}{\operatorname{cosec}\theta}$ (ii) $\sqrt{\operatorname{cosec}^2\theta-1}$ (iii) $\frac{1}{\sqrt{\operatorname{cosec}^2\theta-1}}$ (iv) $\frac{1}{\operatorname{cosec}\theta}$ (v) $\frac{\operatorname{cosec}\theta}{\sqrt{\operatorname{cosec}^2\theta-1}}$

16. Express $\cot\theta$ in terms of $\sin\theta$

(i) $\frac{1}{\sqrt{1-\sin^2\theta}}$ (ii) $\frac{\sin\theta}{\sqrt{1-\sin^2\theta}}$ (iii) $\frac{1}{\sin\theta}$ (iv) $\frac{\sqrt{1-\sin^2\theta}}{\sin\theta}$ (v) $\sqrt{1-\sin^2\theta}$

17. Express $\cot\theta$ in terms of $\cos\theta$

(i) $\frac{\sqrt{1-\cos^2\theta}}{\cos\theta}$ (ii) $\frac{1}{\sqrt{1-\cos^2\theta}}$ (iii) $\sqrt{1-\cos^2\theta}$ (iv) $\frac{\cos\theta}{\sqrt{1-\cos^2\theta}}$ (v) $\frac{1}{\cos\theta}$

18. Express $\cot\theta$ in terms of $\tan\theta$

(i) $\frac{\tan\theta}{\sqrt{1+\tan^2\theta}}$ (ii) $\frac{1}{\tan\theta}$ (iii) $\frac{\sqrt{1+\tan^2\theta}}{\tan\theta}$ (iv) $\frac{1}{\sqrt{1+\tan^2\theta}}$ (v) $\sqrt{1+\tan^2\theta}$

19. Express $\cot\theta$ in terms of $\sec\theta$

(i) $\frac{1}{\sec\theta}$ (ii) $\frac{1}{\sqrt{\sec^2\theta-1}}$ (iii) $\frac{\sec\theta}{\sqrt{\sec^2\theta-1}}$ (iv) $\frac{\sqrt{\sec^2\theta-1}}{\sec\theta}$ (v) $\sqrt{\sec^2\theta-1}$

20. Express $\cot\theta$ in terms of $\operatorname{cosec}\theta$

(i) $\frac{\operatorname{cosec}\theta}{\sqrt{\operatorname{cosec}^2\theta-1}}$ (ii) $\frac{1}{\operatorname{cosec}\theta}$ (iii) $\frac{1}{\sqrt{\operatorname{cosec}^2\theta-1}}$ (iv) $\frac{\sqrt{\operatorname{cosec}^2\theta-1}}{\operatorname{cosec}\theta}$ (v) $\sqrt{\operatorname{cosec}^2\theta-1}$

21. Express $\sec\theta$ in terms of $\sin\theta$

(i) $\frac{1}{\sin\theta}$ (ii) $\frac{\sin\theta}{\sqrt{1-\sin^2\theta}}$ (iii) $\sqrt{1-\sin^2\theta}$ (iv) $\frac{1}{\sqrt{1-\sin^2\theta}}$ (v) $\frac{\sqrt{1-\sin^2\theta}}{\sin\theta}$

22. Express $\sec\theta$ in terms of $\cos\theta$

(i) $\frac{1}{\cos\theta}$ (ii) $\frac{1}{\sqrt{1-\cos^2\theta}}$ (iii) $\sqrt{1-\cos^2\theta}$ (iv) $\frac{\cos\theta}{\sqrt{1-\cos^2\theta}}$ (v) $\frac{\sqrt{1-\cos^2\theta}}{\cos\theta}$

23. Express $\sec\theta$ in terms of $\tan\theta$

(i) $\frac{\tan\theta}{\sqrt{1+\tan^2\theta}}$ (ii) $\sqrt{1+\tan^2\theta}$ (iii) $\frac{1}{\tan\theta}$ (iv) $\frac{\sqrt{1+\tan^2\theta}}{\tan\theta}$ (v) $\frac{1}{\sqrt{1+\tan^2\theta}}$

24. Express $\sec\theta$ in terms of $\cot\theta$

(i) $\sqrt{1+\cot^2\theta}$ (ii) $\frac{\sqrt{1+\cot^2\theta}}{\cot\theta}$ (iii) $\frac{\cot\theta}{\sqrt{1+\cot^2\theta}}$ (iv) $\frac{1}{\sqrt{1+\cot^2\theta}}$ (v) $\frac{1}{\cot\theta}$

25. Express $\sec\theta$ in terms of $\operatorname{cosec}\theta$

(i) $\sqrt{\operatorname{cosec}^2\theta-1}$ (ii) $\frac{\sqrt{\operatorname{cosec}^2\theta-1}}{\operatorname{cosec}\theta}$ (iii) $\frac{\operatorname{cosec}\theta}{\sqrt{\operatorname{cosec}^2\theta-1}}$ (iv) $\frac{1}{\sqrt{\operatorname{cosec}^2\theta-1}}$ (v) $\frac{1}{\operatorname{cosec}\theta}$

26. Express $\operatorname{cosec}\theta$ in terms of $\sin\theta$

(i) $\frac{1}{\sin\theta}$ (ii) $\frac{\sqrt{1-\sin^2\theta}}{\sin\theta}$ (iii) $\sqrt{1-\sin^2\theta}$ (iv) $\frac{\sin\theta}{\sqrt{1-\sin^2\theta}}$ (v) $\frac{1}{\sqrt{1-\sin^2\theta}}$

27. Express $\operatorname{cosec}\theta$ in terms of $\cos\theta$

(i) $\frac{1}{\cos\theta}$ (ii) $\frac{\cos\theta}{\sqrt{1-\cos^2\theta}}$ (iii) $\frac{1}{\sqrt{1-\cos^2\theta}}$ (iv) $\sqrt{1-\cos^2\theta}$ (v) $\frac{\sqrt{1-\cos^2\theta}}{\cos\theta}$

28. Express $\operatorname{cosec}\theta$ in terms of $\tan\theta$

(i) $\frac{\sqrt{1+\tan^2\theta}}{\tan\theta}$ (ii) $\frac{1}{\tan\theta}$ (iii) $\frac{1}{\sqrt{1+\tan^2\theta}}$ (iv) $\frac{\tan\theta}{\sqrt{1+\tan^2\theta}}$ (v) $\sqrt{1+\tan^2\theta}$

29. Express $\operatorname{cosec}\theta$ in terms of $\cot\theta$

(i) $\frac{1}{\sqrt{1+\cot^2\theta}}$ (ii) $\frac{1}{\cot\theta}$ (iii) $\sqrt{1+\cot^2\theta}$ (iv) $\frac{\cot\theta}{\sqrt{1+\cot^2\theta}}$ (v) $\frac{\sqrt{1+\cot^2\theta}}{\cot\theta}$

30. Express $\operatorname{cosec}\theta$ in terms of $\sec\theta$

(i) $\frac{\sec\theta}{\sqrt{\sec^2\theta-1}}$ (ii) $\sqrt{\sec^2\theta-1}$ (iii) $\frac{\sqrt{\sec^2\theta-1}}{\sec\theta}$ (iv) $\frac{1}{\sec\theta}$ (v) $\frac{1}{\sqrt{\sec^2\theta-1}}$

31. Express $\sin 49°$ in terms of $\cos 49°$

(i) $\frac{1}{\cos 49°}$ (ii) $\frac{\cos 49°}{\sqrt{1-\cos^2 49°}}$ (iii) $\frac{1}{\sqrt{1-\cos^2 49°}}$ (iv) $\sqrt{1-\cos^2 49°}$ (v) $\frac{\sqrt{1-\cos^2 49°}}{\cos 49°}$

32. Express $\sin 76°$ in terms of $\tan 76°$

(i) $\frac{\sqrt{1+\tan^2 76°}}{\tan 76°}$ (ii) $\frac{1}{\sqrt{1+\tan^2 76°}}$ (iii) $\frac{1}{\tan 76°}$ (iv) $\frac{\tan 76°}{\sqrt{1+\tan^2 76°}}$ (v) $\sqrt{1+\tan^2 76°}$

33. Express $\sin 63°$ in terms of $\cot 63°$

(i) $\frac{\sqrt{1+\cot^2 63°}}{\cot 63°}$ (ii) $\frac{1}{\cot 63°}$ (iii) $\frac{\cot 63°}{\sqrt{1+\cot^2 63°}}$ (iv) $\sqrt{1+\cot^2 63°}$ (v) $\frac{1}{\sqrt{1+\cot^2 63°}}$

34. Express $\sin 76°$ in terms of $\sec 76°$

(i) $\frac{\sqrt{\sec^2 76°-1}}{\sec 76°}$ (ii) $\frac{1}{\sqrt{\sec^2 76°-1}}$ (iii) $\frac{1}{\sec 76°}$ (iv) $\frac{\sec 76°}{\sqrt{\sec^2 76°-1}}$ (v) $\sqrt{\sec^2 76°-1}$

35. Express $\sin 58°$ in terms of $\operatorname{cosec} 58°$

(i) $\dfrac{1}{\sqrt{\operatorname{cosec}^2 58° - 1}}$ (ii) $\dfrac{\operatorname{cosec} 58°}{\sqrt{\operatorname{cosec}^2 58° - 1}}$ (iii) $\dfrac{1}{\operatorname{cosec} 58°}$ (iv) $\sqrt{\operatorname{cosec}^2 58° - 1}$ (v) $\dfrac{\sqrt{\operatorname{cosec}^2 58° - 1}}{\operatorname{cosec} 58°}$

36. Express $\cos 59°$ in terms of $\sin 59°$

(i) $\dfrac{1}{\sqrt{1 - \sin^2 59°}}$ (ii) $\dfrac{1}{\sin 59°}$ (iii) $\dfrac{\sqrt{1 - \sin^2 59°}}{\sin 59°}$ (iv) $\sqrt{1 - \sin^2 59°}$ (v) $\dfrac{\sin 59°}{\sqrt{1 - \sin^2 59°}}$

37. Express $\cos 47°$ in terms of $\tan 47°$

(i) $\dfrac{\sqrt{1 + \tan^2 47°}}{\tan 47°}$ (ii) $\dfrac{1}{\tan 47°}$ (iii) $\dfrac{\tan 47°}{\sqrt{1 + \tan^2 47°}}$ (iv) $\sqrt{1 + \tan^2 47°}$ (v) $\dfrac{1}{\sqrt{1 + \tan^2 47°}}$

38. Express $\cos 53°$ in terms of $\cot 53°$

(i) $\dfrac{\cot 53°}{\sqrt{1 + \cot^2 53°}}$ (ii) $\dfrac{1}{\sqrt{1 + \cot^2 53°}}$ (iii) $\dfrac{1}{\cot 53°}$ (iv) $\sqrt{1 + \cot^2 53°}$ (v) $\dfrac{\sqrt{1 + \cot^2 53°}}{\cot 53°}$

39. Express $\cos 79°$ in terms of $\sec 79°$

(i) $\sqrt{\sec^2 79° - 1}$ (ii) $\dfrac{1}{\sec 79°}$ (iii) $\dfrac{1}{\sqrt{\sec^2 79° - 1}}$ (iv) $\dfrac{\sec 79°}{\sqrt{\sec^2 79° - 1}}$ (v) $\dfrac{\sqrt{\sec^2 79° - 1}}{\sec 79°}$

40. Express $\cos 36°$ in terms of $\operatorname{cosec} 36°$

(i) $\sqrt{\operatorname{cosec}^2 36° - 1}$ (ii) $\dfrac{1}{\operatorname{cosec} 36°}$ (iii) $\dfrac{1}{\sqrt{\operatorname{cosec}^2 36° - 1}}$ (iv) $\dfrac{\operatorname{cosec} 36°}{\sqrt{\operatorname{cosec}^2 36° - 1}}$ (v) $\dfrac{\sqrt{\operatorname{cosec}^2 36° - 1}}{\operatorname{cosec} 36°}$

41. Express $\tan 49°$ in terms of $\sin 49°$

(i) $\dfrac{\sin 49°}{\sqrt{1 - \sin^2 49°}}$ (ii) $\dfrac{\sqrt{1 - \sin^2 49°}}{\sin 49°}$ (iii) $\dfrac{1}{\sin 49°}$ (iv) $\sqrt{1 - \sin^2 49°}$ (v) $\dfrac{1}{\sqrt{1 - \sin^2 49°}}$

42. Express $\tan 80°$ in terms of $\cos 80°$

(i) $\dfrac{1}{\sqrt{1 - \cos^2 80°}}$ (ii) $\dfrac{\sqrt{1 - \cos^2 80°}}{\cos 80°}$ (iii) $\sqrt{1 - \cos^2 80°}$ (iv) $\dfrac{1}{\cos 80°}$ (v) $\dfrac{\cos 80°}{\sqrt{1 - \cos^2 80°}}$

43. Express $\tan 37°$ in terms of $\cot 37°$

(i) $\dfrac{\cot 37°}{\sqrt{1 + \cot^2 37°}}$ (ii) $\dfrac{1}{\sqrt{1 + \cot^2 37°}}$ (iii) $\sqrt{1 + \cot^2 37°}$ (iv) $\dfrac{\sqrt{1 + \cot^2 37°}}{\cot 37°}$ (v) $\dfrac{1}{\cot 37°}$

44. Express $\tan 51°$ in terms of $\sec 51°$

(i) $\dfrac{\sec 51°}{\sqrt{\sec^2 51° - 1}}$ (ii) $\dfrac{\sqrt{\sec^2 51° - 1}}{\sec 51°}$ (iii) $\sqrt{\sec^2 51° - 1}$ (iv) $\dfrac{1}{\sec 51°}$ (v) $\dfrac{1}{\sqrt{\sec^2 51° - 1}}$

45. Express $\tan 78°$ in terms of $\operatorname{cosec} 78°$

(i) $\dfrac{\operatorname{cosec} 78°}{\sqrt{\operatorname{cosec}^2 78° - 1}}$ (ii) $\dfrac{1}{\sqrt{\operatorname{cosec}^2 78° - 1}}$ (iii) $\dfrac{\sqrt{\operatorname{cosec}^2 78° - 1}}{\operatorname{cosec} 78°}$ (iv) $\dfrac{1}{\operatorname{cosec} 78°}$ (v) $\sqrt{\operatorname{cosec}^2 78° - 1}$

46. Express $\cot 49°$ in terms of $\sin 49°$

(i) $\dfrac{\sqrt{1 - \sin^2 49°}}{\sin 49°}$ (ii) $\dfrac{1}{\sin 49°}$ (iii) $\dfrac{1}{\sqrt{1 - \sin^2 49°}}$ (iv) $\sqrt{1 - \sin^2 49°}$ (v) $\dfrac{\sin 49°}{\sqrt{1 - \sin^2 49°}}$

47. Express $\cot 79°$ in terms of $\cos 79°$

(i) $\dfrac{1}{\cos 79°}$ (ii) $\dfrac{1}{\sqrt{1 - \cos^2 79°}}$ (iii) $\dfrac{\cos 79°}{\sqrt{1 - \cos^2 79°}}$ (iv) $\sqrt{1 - \cos^2 79°}$ (v) $\dfrac{\sqrt{1 - \cos^2 79°}}{\cos 79°}$

48. Express $\cot 46°$ in terms of $\tan 46°$

(i) $\dfrac{\tan 46°}{\sqrt{1 + \tan^2 46°}}$ (ii) $\dfrac{1}{\tan 46°}$ (iii) $\dfrac{1}{\sqrt{1 + \tan^2 46°}}$ (iv) $\sqrt{1 + \tan^2 46°}$ (v) $\dfrac{\sqrt{1 + \tan^2 46°}}{\tan 46°}$

49. Express $\cot 71°$ in terms of $\sec 71°$

(i) $\dfrac{1}{\sqrt{\sec^2 71° - 1}}$ (ii) $\dfrac{\sec 71°}{\sqrt{\sec^2 71° - 1}}$ (iii) $\dfrac{\sqrt{\sec^2 71° - 1}}{\sec 71°}$ (iv) $\sqrt{\sec^2 71° - 1}$ (v) $\dfrac{1}{\sec 71°}$

50. Express $\cot 66°$ in terms of $\operatorname{cosec} 66°$

(i) $\dfrac{1}{\operatorname{cosec} 66°}$ (ii) $\sqrt{\operatorname{cosec}^2 66° - 1}$ (iii) $\dfrac{\operatorname{cosec} 66°}{\sqrt{\operatorname{cosec}^2 66° - 1}}$ (iv) $\dfrac{\sqrt{\operatorname{cosec}^2 66° - 1}}{\operatorname{cosec} 66°}$ (v) $\dfrac{1}{\sqrt{\operatorname{cosec}^2 66° - 1}}$

51. Express $\sec 44°$ in terms of $\sin 44°$

(i) $\dfrac{\sin 44°}{\sqrt{1 - \sin^2 44°}}$ (ii) $\dfrac{1}{\sin 44°}$ (iii) $\sqrt{1 - \sin^2 44°}$ (iv) $\dfrac{\sqrt{1 - \sin^2 44°}}{\sin 44°}$ (v) $\dfrac{1}{\sqrt{1 - \sin^2 44°}}$

52. Express $\sec 33°$ in terms of $\cos 33°$

(i) $\dfrac{1}{\sqrt{1 - \cos^2 33°}}$ (ii) $\dfrac{\sqrt{1 - \cos^2 33°}}{\cos 33°}$ (iii) $\sqrt{1 - \cos^2 33°}$ (iv) $\dfrac{1}{\cos 33°}$ (v) $\dfrac{\cos 33°}{\sqrt{1 - \cos^2 33°}}$

53. Express $\sec 31°$ in terms of $\tan 31°$

(i) $\sqrt{1 + \tan^2 31°}$ (ii) $\frac{\sqrt{1 + \tan^2 31°}}{\tan 31°}$ (iii) $\frac{1}{\sqrt{1 + \tan^2 31°}}$ (iv) $\frac{\tan 31°}{\sqrt{1 + \tan^2 31°}}$ (v) $\frac{1}{\tan 31°}$

54. Express $\sec 32°$ in terms of $\cot 32°$

(i) $\frac{1}{\sqrt{1 + \cot^2 32°}}$ (ii) $\sqrt{1 + \cot^2 32°}$ (iii) $\frac{1}{\cot 32°}$ (iv) $\frac{\cot 32°}{\sqrt{1 + \cot^2 32°}}$ (v) $\frac{\sqrt{1 + \cot^2 32°}}{\cot 32°}$

55. Express $\sec 36°$ in terms of $\operatorname{cosec} 36°$

(i) $\frac{1}{\operatorname{cosec} 36°}$ (ii) $\frac{\operatorname{cosec} 36°}{\sqrt{\operatorname{cosec}^2 36° - 1}}$ (iii) $\frac{\sqrt{\operatorname{cosec}^2 36° - 1}}{\operatorname{cosec} 36°}$ (iv) $\frac{1}{\sqrt{\operatorname{cosec}^2 36° - 1}}$ (v) $\sqrt{\operatorname{cosec}^2 36° - 1}$

56. Express $\operatorname{cosec} 78°$ in terms of $\sin 78°$

(i) $\sqrt{1 - \sin^2 78°}$ (ii) $\frac{\sqrt{1 - \sin^2 78°}}{\sin 78°}$ (iii) $\frac{\sin 78°}{\sqrt{1 - \sin^2 78°}}$ (iv) $\frac{1}{\sin 78°}$ (v) $\frac{1}{\sqrt{1 - \sin^2 78°}}$

57. Express $\operatorname{cosec} 73°$ in terms of $\cos 73°$

(i) $\sqrt{1 - \cos^2 73°}$ (ii) $\frac{1}{\cos 73°}$ (iii) $\frac{\sqrt{1 - \cos^2 73°}}{\cos 73°}$ (iv) $\frac{1}{\sqrt{1 - \cos^2 73°}}$ (v) $\frac{\cos 73°}{\sqrt{1 - \cos^2 73°}}$

58. Express $\operatorname{cosec} 26°$ in terms of $\tan 26°$

(i) $\frac{1}{\tan 26°}$ (ii) $\frac{\tan 26°}{\sqrt{1 + \tan^2 26°}}$ (iii) $\sqrt{1 + \tan^2 26°}$ (iv) $\frac{\sqrt{1 + \tan^2 26°}}{\tan 26°}$ (v) $\frac{1}{\sqrt{1 + \tan^2 26°}}$

59. Express $\operatorname{cosec} 26°$ in terms of $\cot 26°$

(i) $\sqrt{1 + \cot^2 26°}$ (ii) $\frac{1}{\sqrt{1 + \cot^2 26°}}$ (iii) $\frac{\cot 26°}{\sqrt{1 + \cot^2 26°}}$ (iv) $\frac{1}{\cot 26°}$ (v) $\frac{\sqrt{1 + \cot^2 26°}}{\cot 26°}$

60. Express $\operatorname{cosec} 48°$ in terms of $\sec 48°$

(i) $\frac{\sec 48°}{\sqrt{\sec^2 48° - 1}}$ (ii) $\frac{1}{\sqrt{\sec^2 48° - 1}}$ (iii) $\frac{1}{\sec 48°}$ (iv) $\frac{\sqrt{\sec^2 48° - 1}}{\sec 48°}$ (v) $\sqrt{\sec^2 48° - 1}$

Assignment Key

1) (i)	2) (v)	3) (iii)	4) (i)	5) (ii)	6) (v)
7) (ii)	8) (v)	9) (v)	10) (ii)	11) (iii)	12) (v)
13) (ii)	14) (iii)	15) (iii)	16) (iv)	17) (iv)	18) (ii)
19) (ii)	20) (v)	21) (iv)	22) (i)	23) (ii)	24) (ii)
25) (iii)	26) (i)	27) (iii)	28) (i)	29) (iii)	30) (i)
31) (iv)	32) (iv)	33) (v)	34) (i)	35) (iii)	36) (iv)
37) (v)	38) (i)	39) (ii)	40) (v)	41) (i)	42) (ii)
43) (v)	44) (iii)	45) (ii)	46) (i)	47) (iii)	48) (ii)
49) (i)	50) (ii)	51) (v)	52) (iv)	53) (i)	54) (v)
55) (ii)	56) (iv)	57) (iv)	58) (iv)	59) (i)	60) (i)