EduSahara™ Assignment

Name : Trigonometric Expression Evaluation

Chapter : Introduction to Trigonometry

Grade : CBSE Grade X

1. $\tan 30° \operatorname{cosec} 60° - \cot 30° \operatorname{cosec} 30° =$

   (i) $(\frac{4}{3} - 2\sqrt{3})$ (ii) $(0 - 2\sqrt{3})$ (iii) $(\frac{2}{3} - 2\sqrt[4]{3})$ (iv) $(\frac{2}{3} - 2\sqrt{3})$ (v) $(\frac{2}{3} - 6)$

2. $\frac{\tan 45° \sin 45° + \sec 45° \sec 0°}{\tan 0° \sin 90° \sec 45° - \sec 0° \tan 60° \sin 30°} =$

   (i) (-6) (ii) $(-\sqrt{9})$ (iii) $(-\sqrt{3})$ (iv) $(-\sqrt[4]{6})$ (v) $(-\sqrt{6})$

3. $\frac{\sin 2°}{\cos 88°} =$

   (i) 1 (ii) $\tan 88°$ (iii) $\tan 2°$ (iv) 0 (v) -1

4. $\frac{\cos 80°}{\sin 10°} =$

   (i) 0 (ii) $\tan 80°$ (iii) -1 (iv) 1 (v) $\tan 10°$

5. $\frac{\tan 29°}{\cot 61°} =$

   (i) 1 (ii) -1 (iii) 0 (iv) $\tan 61°$ (v) $\tan 29°$

6. $\frac{\cot 66°}{\tan 24°} =$

   (i) 1 (ii) $\tan 66°$ (iii) -1 (iv) 0 (v) $\tan 24°$

7. $\frac{\sec 29°}{\operatorname{cosec} 61°} =$

   (i) $\tan 61°$ (ii) 0 (iii) $\tan 29°$ (iv) -1 (v) 1

8. $\frac{\operatorname{cosec} 63°}{\sec 27°} =$

   (i) $\tan 27°$ (ii) 0 (iii) -1 (iv) $\tan 63°$ (v) 1

9. $\frac{\sin 19° \cos 15°}{\cos 71° \sin 75°} =$

   (i) 0 (ii) $\tan 19°$ (iii) $\tan 15°$ (iv) -1 (v) 1

10. $\frac{\cos 86° \sin 26°}{\sin 4° \cos 64°} =$

    (i) $\tan 26°$ (ii) 0 (iii) 1 (iv) $\tan 86°$ (v) -1

11. $\frac{\tan 64° \cot 24°}{\cot 26° \tan 66°} =$

    (i) -1 (ii) 1 (iii) 0 (iv) $\tan 24°$ (v) $\tan 64°$

12. $\frac{\cot 51° \tan 68°}{\tan 39° \cot 22°} =$

(i) -1 (ii) 1 (iii) 0 (iv) $\tan 68°$ (v) $\tan 51°$

13. $\frac{\sec 32° \operatorname{cosec} 26°}{\operatorname{cosec} 58° \sec 64°} =$

(i) 1 (ii) 0 (iii) $\tan 32°$ (iv) $\tan 26°$ (v) -1

14. $\frac{\operatorname{cosec} 45° \sec 28°}{\sec 45° \operatorname{cosec} 62°} =$

(i) $\tan 28°$ (ii) 0 (iii) 1 (iv) -1 (v) $\tan 45°$

15. $\sin 4° - \cos 86° =$

(i) 0 (ii) 1 (iii) -1 (iv) $2\sin 4°$ (v) $2\sin 86°$

16. $\cos 11° - \sin 79° =$

(i) 0 (ii) $2\sin 79°$ (iii) $2\sin 11°$ (iv) -1 (v) 1

17. $\tan 77° - \cot 13° =$

(i) 1 (ii) $2\sin 13°$ (iii) $2\sin 77°$ (iv) -1 (v) 0

18. $\cot 73° - \tan 17° =$

(i) $2\sin 17°$ (ii) $2\sin 73°$ (iii) -1 (iv) 0 (v) 1

19. $\sec 84° - \operatorname{cosec} 6° =$

(i) $2\sin 6°$ (ii) 1 (iii) 0 (iv) -1 (v) $2\sin 84°$

20. $\operatorname{cosec} 64° - \sec 26° =$

(i) $2\sin 26°$ (ii) 0 (iii) $2\sin 64°$ (iv) 1 (v) -1

21. $\sin 28° \cos 15° - \cos 62° \sin 75° =$

(i) 1 (ii) $2\sin 15°$ (iii) -1 (iv) 0 (v) $2\sin 28°$

22. $\cos 10° \sin 6° - \sin 80° \cos 84° =$

(i) $2\sin 6°$ (ii) 1 (iii) $2\sin 10°$ (iv) 0 (v) -1

23. $\tan 49° \cot 81° - \cot 41° \tan 9° =$

(i) $2\sin 81°$ (ii) -1 (iii) 0 (iv) 1 (v) $2\sin 49°$

24. $\cot 14° \tan 7° - \tan 76° \cot 83° =$

(i) 0 (ii) 1 (iii) $2\sin 14°$ (iv) -1 (v) $2\sin 7°$

25. $\sec 6° \operatorname{cosec} 86° - \operatorname{cosec} 84° \sec 4° =$

(i) 0 (ii) $2\sin 6°$ (iii) -1 (iv) $2\sin 86°$ (v) 1

26. $\operatorname{cosec} 59° \sec 79° - \sec 31° \operatorname{cosec} 11° =$

(i) $2\sin 79°$ (ii) $2\sin 59°$ (iii) 1 (iv) -1 (v) 0

27. $\sin 60° \cos 0° + \cos 60° \sin 0° =$

(i) $\frac{3}{2}$ (ii) $\frac{1}{2}\sqrt{3}$ (iii) $\frac{1}{2}\frac{4}{\sqrt{3}}$ (iv) $\frac{1}{2}\sqrt{5}$ (v) $\frac{1}{2}\sqrt{\frac{1}{3}}$

28. Find the value of $\tan 30° \tan 15° \tan 60° \tan 75°$

(i) 0 (ii) -1 (iii) 1 (iv) undefined (v) 2

29. Find the value of $\cot 15° \cot 35° \cot 75° \cot 55°$

(i) -1 (ii) 0 (iii) 1 (iv) 2 (v) undefined

30. $\frac{\sin^2 65° + \sin^2 25°}{\cos^2 60° + \cos^2 30°} =$

(i) 0 (ii) 1 (iii) undefined (iv) -1 (v) 2

31. $\frac{\sin 5° \cos 85° + \cos 5° \sin 85°}{\sin 10° \cos 80° + \cos 10° \sin 80°} =$

(i) 1 (ii) -1 (iii) undefined (iv) 0 (v) 2

32. $\sin 44° + \cos 52° =$

(i) $\cos 44° + \sin 52°$ (ii) $\cos 46° + \cos 38°$ (iii) $\cos 46° + \sin 38°$ (iv) $\sin 44° + \sin 52°$

33. $\cos 69° + \sin 13° =$

(i) $\cos 69° + \cos 13°$ (ii) $\sin 69° + \cos 13°$ (iii) $\sin 21° + \cos 77°$ (iv) $\sin 21° + \sin 77°$

34. $\tan 45° + \cot 13° =$

(i) $\cot 45° + \cot 77°$ (ii) $\cot 45° + \tan 13°$ (iii) $\cot 45° + \tan 77°$ (iv) $\tan 45° + \tan 13°$

35. $\cot 39° + \tan 66° =$

(i) $\tan 39° + \cot 66°$ (ii) $\cot 39° + \cot 66°$ (iii) $\tan 51° + \tan 24°$ (iv) $\tan 51° + \cot 24°$

36. $\sec 22° + \operatorname{cosec} 57° =$

(i) $\operatorname{cosec} 68° + \operatorname{cosec} 33°$ (ii) $\sec 22° + \sec 57°$ (iii) $\operatorname{cosec} 22° + \sec 57°$ (iv) $\operatorname{cosec} 68° + \sec 33°$

37. $\operatorname{cosec} 35° + \sec 46° =$

(i) $\sec 35° + \operatorname{cosec} 46°$ (ii) $\operatorname{cosec} 35° + \operatorname{cosec} 46°$ (iii) $\sec 55° + \operatorname{cosec} 44°$ (iv) $\sec 55° + \sec 44°$

Assignment Key

1) (iv)	2) (v)	3) (i)	4) (iv)	5) (i)	6) (i)
7) (v)	8) (v)	9) (v)	10) (iii)	11) (ii)	12) (ii)
13) (i)	14) (iii)	15) (i)	16) (i)	17) (v)	18) (iv)
19) (iii)	20) (ii)	21) (iv)	22) (iv)	23) (iii)	24) (i)
25) (i)	26) (v)	27) (ii)	28) (iii)	29) (iii)	30) (ii)
31) (i)	32) (iii)	33) (iii)	34) (iii)	35) (iv)	36) (iv)
37) (iii)					