EduSahara™ Assignment

Name : Trigonometric Expression Evaluation

Chapter : Trigonometrical Ratios

Grade : ICSE Grade IX

1. $\sin 0° \cos 60° - \tan 30° \sin 45° =$

   (i) $(-\frac{1}{6}\sqrt{9})$ (ii) (-1) (iii) $(-\frac{1}{6}\sqrt{6})$ (iv) $(-\frac{1}{6}\frac{4}{\sqrt{6}})$ (v) $(-\frac{1}{6}\sqrt{3})$

2. $\frac{\operatorname{cosec} 60° \cot 90° \sec 60° - \tan 60° \sin 30° \cot 60°}{\operatorname{cosec} 45° \operatorname{cosec} 90° - \sin 30° \cot 45°} =$

   (i) $(-\frac{2}{7}\sqrt{2}-\frac{1}{9})$ (ii) $(-\frac{2}{7}\sqrt{\frac{1}{2}}-\frac{1}{7})$ (iii) $(-\frac{2}{7}\sqrt{5}-\frac{1}{7})$ (iv) $(-\frac{2}{7}\sqrt{2}-\frac{1}{7})$ (v) $(-\frac{2}{7}\sqrt{2}-\frac{1}{5})$

3. $\frac{\sin 13°}{\cos 77°} =$

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

4. $\frac{\cos 85°}{\sin 5°} =$

   (i) 0 (ii) -1 (iii) $\tan 85°$ (iv) 1 (v) $\tan 5°$

5. $\frac{\tan 2°}{\cot 88°} =$

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

6. $\frac{\cot 18°}{\tan 72°} =$

   (i) 0 (ii) -1 (iii) $\tan 18°$ (iv) 1 (v) $\tan 72°$

7. $\frac{\sec 81°}{\operatorname{cosec} 9°} =$

   (i) $\tan 81°$ (ii) $\tan 9°$ (iii) 0 (iv) 1 (v) -1

8. $\frac{\operatorname{cosec} 3°}{\sec 87°} =$

   (i) 1 (ii) 0 (iii) $\tan 87°$ (iv) -1 (v) $\tan 3°$

9. $\frac{\sin 60° \cos 8°}{\cos 30° \sin 82°} =$

   (i) $\tan 60°$ (ii) $\tan 8°$ (iii) 1 (iv) 0 (v) -1

10. $\frac{\cos 32° \sin 29°}{\sin 58° \cos 61°} =$

    (i) $\tan 32°$ (ii) 0 (iii) -1 (iv) $\tan 29°$ (v) 1

11. $\frac{\tan 25° \cot 73°}{\cot 65° \tan 17°} =$

(i) 0 (ii) $\tan 25°$ (iii) 1 (iv) $\tan 73°$ (v) -1

12. $\frac{\cot 67° \tan 55°}{\tan 23° \cot 35°} =$

(i) $\tan 67°$ (ii) 1 (iii) -1 (iv) 0 (v) $\tan 55°$

13. $\frac{\sec 88° \operatorname{cosec} 79°}{\operatorname{cosec} 2° \sec 11°} =$

(i) $\tan 88°$ (ii) 1 (iii) 0 (iv) -1 (v) $\tan 79°$

14. $\frac{\operatorname{cosec} 14° \sec 40°}{\sec 76° \operatorname{cosec} 50°} =$

(i) 0 (ii) 1 (iii) $\tan 14°$ (iv) $\tan 40°$ (v) -1

15. $\sin 72° - \cos 18° =$

(i) $2\sin 18°$ (ii) 0 (iii) 1 (iv) $2\sin 72°$ (v) -1

16. $\cos 54° - \sin 36° =$

(i) $2\sin 54°$ (ii) 0 (iii) 1 (iv) $2\sin 36°$ (v) -1

17. $\tan 34° - \cot 56° =$

(i) 1 (ii) -1 (iii) $2\sin 34°$ (iv) 0 (v) $2\sin 56°$

18. $\cot 6° - \tan 84° =$

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

19. $\sec 76° - \operatorname{cosec} 14° =$

(i) 0 (ii) $2\sin 76°$ (iii) $2\sin 14°$ (iv) 1 (v) -1

20. $\operatorname{cosec} 5° - \sec 85° =$

(i) $2\sin 5°$ (ii) $2\sin 85°$ (iii) 1 (iv) -1 (v) 0

21. $\sin 24° \cos 8° - \cos 66° \sin 82° =$

(i) -1 (ii) 0 (iii) $2\sin 24°$ (iv) $2\sin 8°$ (v) 1

22. $\cos 58° \sin 36° - \sin 32° \cos 54° =$

(i) $2\sin 36°$ (ii) $2\sin 58°$ (iii) -1 (iv) 1 (v) 0

23. $\tan 5° \cot 71° - \cot 85° \tan 19° =$

(i) -1 (ii) 1 (iii) $2\sin 5°$ (iv) 0 (v) $2\sin 71°$

24. $\cot 60° \tan 25° - \tan 30° \cot 65° =$

(i) 0 (ii) -1 (iii) $2\sin 60°$ (iv) 1 (v) $2\sin 25°$

25. $\sec 86° \operatorname{cosec} 49° - \operatorname{cosec} 4° \sec 41° =$

(i) 0 (ii) $2\sin 86°$ (iii) -1 (iv) $2\sin 49°$ (v) 1

26. $\text{cosec}\,49° \sec 44° - \sec 41° \text{cosec}\,46° =$

(i) 0 (ii) 1 (iii) $2\sin 49°$ (iv) $2\sin 44°$ (v) -1

27. Find the value of $\tan 35° \tan 20° \tan 55° \tan 70°$

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

28. Find the value of $\cot 20° \cot 10° \cot 70° \cot 80°$

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

29. $\sin 33° + \cos 65° =$

(i) $\cos 33° + \sin 65°$ (ii) $\cos 57° + \cos 25°$ (iii) $\sin 33° + \sin 65°$ (iv) $\cos 57° + \sin 25°$

30. $\cos 14° + \sin 62° =$

(i) $\sin 76° + \cos 28°$ (ii) $\sin 76° + \sin 28°$ (iii) $\sin 14° + \cos 62°$ (iv) $\cos 14° + \cos 62°$

31. $\tan 58° + \cot 72° =$

(i) $\cot 58° + \tan 72°$ (ii) $\cot 32° + \tan 18°$ (iii) $\cot 32° + \cot 18°$ (iv) $\tan 58° + \tan 72°$

32. $\cot 11° + \tan 63° =$

(i) $\tan 11° + \cot 63°$ (ii) $\tan 79° + \cot 27°$ (iii) $\cot 11° + \cot 63°$ (iv) $\tan 79° + \tan 27°$

33. $\sec 68° + \text{cosec}\,34° =$

(i) $\text{cosec}\,22° + \text{cosec}\,56°$ (ii) $\text{cosec}\,22° + \sec 56°$ (iii) $\text{cosec}\,68° + \sec 34°$ (iv) $\sec 68° + \sec 34°$

34. $\text{cosec}\,72° + \sec 31° =$

(i) $\sec 72° + \text{cosec}\,31°$ (ii) $\sec 18° + \text{cosec}\,59°$ (iii) $\text{cosec}\,72° + \text{cosec}\,31°$ (iv) $\sec 18° + \sec 59°$

Assignment Key

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