EduSahara™ Worksheet

Name : Chapter Based Worksheet

Chapter : Trigonometrical Ratios

Grade : ICSE Grade IX

1. Given $\sec C = \frac{5}{4}$, find $\cos C$

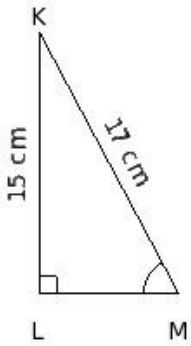
   (i) $\frac{4}{3}$ (ii) $\frac{5}{3}$ (iii) $\frac{3}{4}$ (iv) $\frac{3}{5}$ (v) $\frac{4}{5}$

2. Which of the following are true?

   a) $\sin 90° = 0$
   b) $\cos 90° = 0$
   c) $\sin 0° = 0$
   d) $\sin 45° = 0$
   e) $\cos 45° = 0$
   f) $\tan 0° = 0$
   g) $\tan 90° = 0$
   h) $\cos 0° = 0$

   (i) {h,b,c} (ii) {b,c,f} (iii) {e,g,f} (iv) {a,b} (v) {d,c}

3. In the given figure, $\sec M =$



   (i) $\frac{15}{8}$ (ii) $\frac{17}{6}$ (iii) $\frac{19}{8}$ (iv) $\frac{17}{10}$ (v) $\frac{17}{8}$

4. $\tan(A - B) =$

   (i) $\frac{\tan A + \tan B}{1 - \tan A \tan B}$ (ii) $\frac{\tan A - \tan B}{1 - \tan A \tan B}$ (iii) $\frac{\tan A - \tan B}{1 + \tan A \tan B}$ (iv) $\frac{\tan A + \tan B}{1 + \tan A \tan B}$

5. If $\sin 2G = 2\sin G$, then $G =$

   (i) 30° (ii) 45° (iii) 90° (iv) 60° (v) 0°

6. Given that $4\sec\theta = 5$, find $\cos\theta$

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

7. In $\triangle GHI$, right angled at H, if GH = 8 cm and HI = 6 cm, find $\cos G$

(i) $\frac{4}{7}$ (ii) $\frac{6}{5}$ (iii) $\frac{2}{5}$ (iv) $\frac{4}{5}$ (v) $\frac{4}{3}$

8. $\operatorname{cosec} 55° \sec 23° - \sec 35° \operatorname{cosec} 67° =$

(i) 0 (ii) -1 (iii) 1 (iv) $2\sin 23°$ (v) $2\sin 55°$

9. Given $\sec N = \frac{5}{4}$, find $\tan N$

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

10. $\operatorname{cosec} 50° - \sec 40° =$

(i) -1 (ii) 1 (iii) $2\sin 50°$ (iv) 0 (v) $2\sin 40°$

11. $\sin 8° - \cos 82° =$

(i) $2\sin 8°$ (ii) $2\sin 82°$ (iii) 0 (iv) 1 (v) -1

12. Given that $15\tan\theta = 8$, find $\cos\theta$

(i) $\frac{8}{17}$ (ii) $\frac{17}{15}$ (iii) $\frac{17}{8}$ (iv) $\frac{15}{8}$ (v) $\frac{15}{17}$

13. Given $\cot K = \frac{12}{5}$, find $\operatorname{cosec} K$

(i) $\frac{5}{12}$ (ii) $\frac{5}{13}$ (iii) $\frac{13}{12}$ (iv) $\frac{13}{5}$ (v) $\frac{12}{13}$

14. Given $\operatorname{cosec} H = \frac{13}{5}$, find $\tan H$

(i) $\frac{12}{5}$ (ii) $\frac{5}{13}$ (iii) $\frac{12}{13}$ (iv) $\frac{5}{12}$ (v) $\frac{13}{12}$

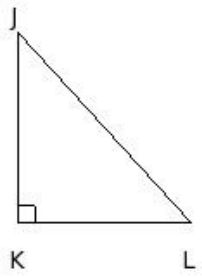
15. Given that $3\operatorname{cosec}\theta = 5$, find $\sin\theta$

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

16. Given $\cot H = \frac{3}{4}$, find $\cos H$

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

17. From the given figure, find $\sin(90 - L)$



(i) $\frac{JK}{JL}$ (ii) $\frac{JL}{JK}$ (iii) $\frac{KL}{JK}$ (iv) $\frac{JK}{KL}$ (v) $\frac{KL}{JL}$

18. $\frac{\sin 15°}{\cos 75°} =$

(i) $\tan 75°$ (ii) -1 (iii) 0 (iv) $\tan 15°$ (v) 1

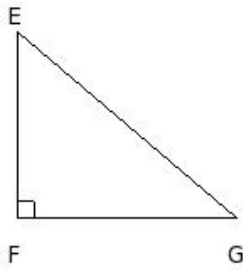
19. $\cos 21° - \sin 69° =$

(i) 0 (ii) $2\sin 69°$ (iii) 1 (iv) -1 (v) $2\sin 21°$

20. $\frac{\cos 71° \sin 17°}{\sin 19° \cos 73°} =$

(i) 0 (ii) $\tan 17°$ (iii) $\tan 71°$ (iv) -1 (v) 1

21. From the given figure, find $\cos(90 - G)$



(i) $\frac{FG}{EG}$ (ii) $\frac{EF}{FG}$ (iii) $\frac{EG}{FG}$ (iv) $\frac{FG}{EF}$ (v) $\frac{EF}{EG}$

22. Given $\tan K = \frac{1}{15}\sqrt{15}$, find $\sec K$

(i) $\frac{1}{4}$ (ii) $\sqrt{15}$ (iii) 4 (iv) $\frac{4}{15}\sqrt{15}$ (v) $\frac{1}{4}\sqrt{15}$

23. Given $\operatorname{cosec} B = \frac{5}{4}$, find $\sec B$

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

24. $\frac{\operatorname{cosec} 60°}{\sec 30°} =$

(i) $\tan 60°$ (ii) $\tan 30°$ (iii) 0 (iv) -1 (v) 1

25. $\frac{\cot 27° \tan 48°}{\tan 63° \cot 42°} =$

(i) $\tan 48°$ (ii) $\tan 27°$ (iii) 0 (iv) -1 (v) 1

Assignment Key

1) (v)	2) (ii)	3) (v)	4) (iii)	5) (v)	6) (v)
7) (iv)	8) (i)	9) (ii)	10) (iv)	11) (iii)	12) (v)
13) (iv)	14) (iv)	15) (iv)	16) (ii)	17) (v)	18) (v)
19) (i)	20) (v)	21) (v)	22) (iv)	23) (i)	24) (v)
25) (v)					