EduSahara™ Assignment

Name : Basics of Trigonometric Ratios

Chapter : Introduction to Trigonometry

Grade : CBSE Grade X

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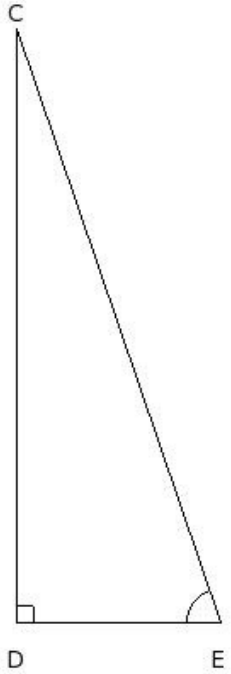
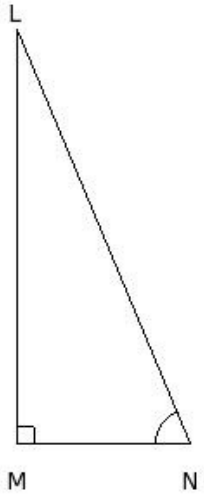
1. In the given figure, $\sin E =$



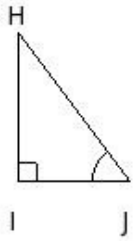

(i) $\frac{ED}{CD}$ (ii) $\frac{ED}{FD}$ (iii) $\frac{EC}{DC}$ (iv) $\frac{CD}{ED}$ (v) $\frac{CD}{CE}$

2. In the given figure, $\cos N =$



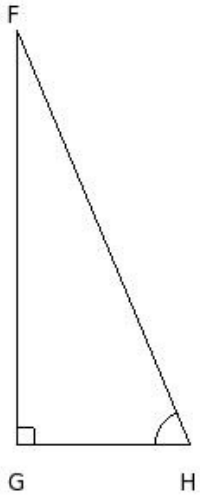

(i) $\frac{MN}{ML}$ (ii) $\frac{MN}{LN}$ (iii) $\frac{ON}{OM}$ (iv) $\frac{NL}{NM}$ (v) $\frac{LN}{LM}$

3. In the given figure, $\tan J =$



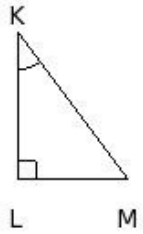

(i) $\frac{JH}{IJ}$ (ii) $\frac{JI}{HJ}$ (iii) $\frac{HI}{IJ}$ (iv) $\frac{HI}{JH}$ (v) $\frac{JI}{KJ}$

4. In the given figure, $\cot H =$



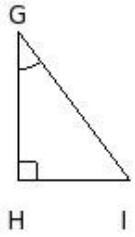

(i) $\frac{GH}{FG}$ (ii) $\frac{GH}{HF}$ (iii) $\frac{IH}{HG}$ (iv) $\frac{FH}{HG}$ (v) $\frac{HF}{FG}$

5. In the given figure, $\sec K =$



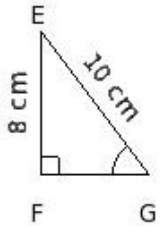

(i) $\frac{ML}{MK}$ (ii) $\frac{KL}{KM}$ (iii) $\frac{KM}{KL}$ (iv) $\frac{LK}{MK}$ (v) $\frac{NL}{ML}$

6. In the given figure, $\operatorname{cosec} G =$



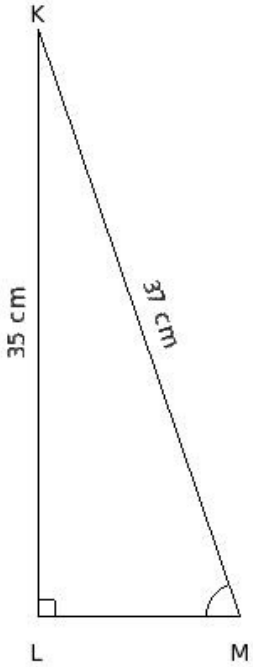

(i) $\frac{HG}{HI}$ (ii) $\frac{JH}{JI}$ (iii) $\frac{IH}{GH}$ (iv) $\frac{GI}{HI}$ (v) $\frac{GH}{IH}$

7. In the given figure, $\sin G =$



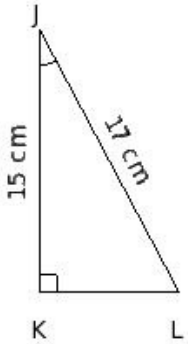

(i) $\frac{4}{7}$ (ii) $\frac{4}{3}$ (iii) $\frac{2}{5}$ (iv) $\frac{6}{5}$ (v) $\frac{4}{5}$

8. In the given figure, $\cos M =$



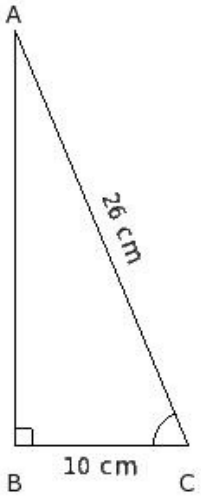

(i) $\frac{12}{37}$ (ii) $\frac{12}{35}$ (iii) $\frac{14}{37}$ (iv) $\frac{10}{37}$ (v) $\frac{4}{13}$

9. In the given figure, $\tan J =$



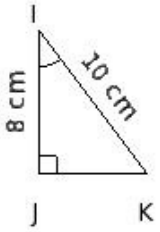

(i) $\frac{8}{15}$ (ii) $\frac{8}{17}$ (iii) $\frac{2}{3}$ (iv) $\frac{8}{13}$ (v) $\frac{2}{5}$

10. In the given figure, $\cot C =$



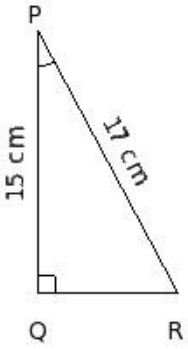

(i) $\frac{1}{2}$ (ii) $\frac{5}{14}$ (iii) $\frac{1}{4}$ (iv) $\frac{5}{12}$ (v) $\frac{7}{12}$

11. In the given figure, $\sec I =$




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

12. In the given figure, $\operatorname{cosec} P =$




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

13. $\sin L =$

(i) $\frac{1}{\sec L}$ (ii) $\frac{1}{\cot L}$ (iii) $\frac{1}{\operatorname{cosec} L}$ (iv) $\frac{1}{\tan L}$ (v) $\frac{1}{\cos L}$

14. $\cos A =$

(i) $\frac{1}{\sec A}$ (ii) $\frac{1}{\operatorname{cosec} A}$ (iii) $\frac{1}{\cot A}$ (iv) $\frac{1}{\tan A}$ (v) $\frac{1}{\sin A}$

15. $\tan L =$

(i) $\frac{1}{\operatorname{cosec} L}$ (ii) $\frac{1}{\cos L}$ (iii) $\frac{1}{\sec L}$ (iv) $\frac{1}{\sin L}$ (v) $\frac{1}{\cot L}$

16. $\cot F =$

(i) $\frac{1}{\tan F}$ (ii) $\frac{1}{\sin F}$ (iii) $\frac{1}{\cos F}$ (iv) $\frac{1}{\operatorname{cosec} F}$ (v) $\frac{1}{\sec F}$

17. $\sec M =$

(i) $\frac{1}{\cot M}$ (ii) $\frac{1}{\cos M}$ (iii) $\frac{1}{\sin M}$ (iv) $\frac{1}{\operatorname{cosec} M}$ (v) $\frac{1}{\tan M}$

18. $\operatorname{cosec} A =$

(i) $\frac{1}{\cot A}$ (ii) $\frac{1}{\tan A}$ (iii) $\frac{1}{\sec A}$ (iv) $\frac{1}{\sin A}$ (v) $\frac{1}{\cos A}$

19. In $\triangle KLM$, right angled at $L$, if $KL = 15$ cm and $LM = 8$ cm, find $\sin M$

(i) $\frac{15}{19}$ (ii) 1 (iii) $\frac{13}{17}$ (iv) $\frac{15}{17}$

20. In $\triangle FGH$, right angled at $G$, if $FG = 15$ cm and $GH = 8$ cm, find $\cos H$

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

21. In $\triangle DEF$, right angled at $E$, if $DE = 35$ cm and $EF = 12$ cm, find $\tan F$

(i) $\frac{35}{12}$ (ii) $\frac{37}{12}$ (iii) $\frac{11}{4}$ (iv) $\frac{7}{2}$ (v) $\frac{5}{2}$

22. In $\triangle DEF$, right angled at $E$, if $DE = 15$ cm and $EF = 8$ cm, find $\cot F$

(i) $\frac{8}{17}$ (ii) $\frac{2}{3}$ (iii) $\frac{2}{5}$ (iv) $\frac{8}{15}$ (v) $\frac{8}{13}$

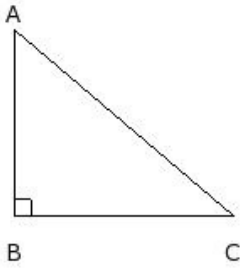
23. In $\triangle LMN$, right angled at $M$, if $LM = 24$ cm and $MN = 10$ cm, find $\sec N$

(i) 3 (ii) $\frac{13}{5}$ (iii) $\frac{13}{3}$ (iv) $\frac{11}{5}$ (v) $\frac{13}{7}$

24. In $\triangle ABC$, right angled at $B$, if $AB = 8$ cm and $BC = 6$ cm, find $\operatorname{cosec} A$

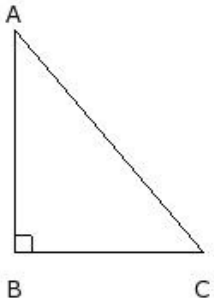
(i) 5 (ii) 1 (iii) $\frac{7}{3}$ (iv) $\frac{5}{3}$

25. From the given figure, find $\sin(90 - C)$



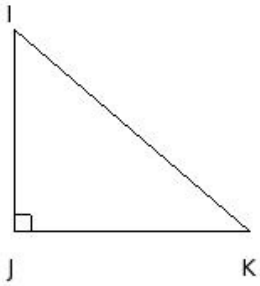

(i) $\frac{AC}{AB}$ (ii) $\frac{AB}{BC}$ (iii) $\frac{BC}{AB}$ (iv) $\frac{BC}{AC}$ (v) $\frac{AB}{AC}$

26. From the given figure, find $\cos(90 - C)$



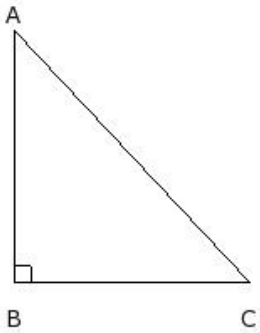

(i) $\frac{AB}{BC}$ (ii) $\frac{AC}{BC}$ (iii) $\frac{BC}{AC}$ (iv) $\frac{AB}{AC}$ (v) $\frac{BC}{AB}$

27. From the given figure, find $\tan(90 - I)$



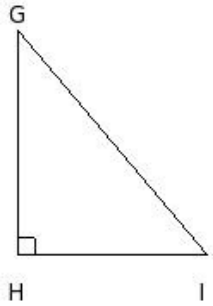

(i) $\frac{IK}{IJ}$ (ii) $\frac{IK}{JK}$ (iii) $\frac{IJ}{JK}$ (iv) $\frac{IJ}{IK}$ (v) $\frac{JK}{IK}$

28. From the given figure, find $\operatorname{cosec}(90 - A)$



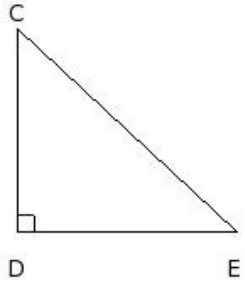

(i) $\frac{BC}{AC}$ (ii) $\frac{AC}{BC}$ (iii) $\frac{AB}{BC}$ (iv) $\frac{AC}{AB}$ (v) $\frac{BC}{AB}$

29. From the given figure, find $\sec(90 - G)$




(i) $\frac{GI}{GH}$ (ii) $\frac{GH}{HI}$ (iii) $\frac{GI}{HI}$ (iv) $\frac{GH}{GI}$ (v) $\frac{HI}{GH}$

30. From the given figure, find $\cot(90 - E)$




(i) $\frac{DE}{CE}$ (ii) $\frac{CD}{DE}$ (iii) $\frac{CE}{DE}$ (iv) $\frac{CD}{CE}$ (v) $\frac{CE}{CD}$

## Assignment Key

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

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