

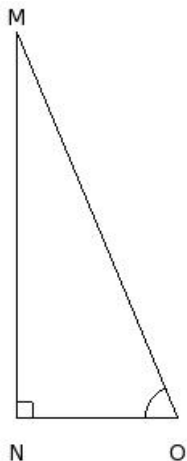
EduSahara™ Learning Center Assignment

Grade : Class X, ICSE

Chapter : Trigonometrical Identities

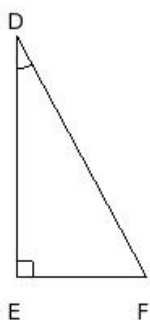
Name : Basics of Trigonometric Ratios

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



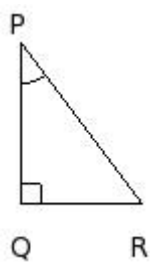
- (i) $\frac{OM}{NM}$ (ii) $\frac{ON}{PN}$ (iii) $\frac{ON}{MN}$ (iv) $\frac{MN}{ON}$ (v) $\frac{MN}{MO}$

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



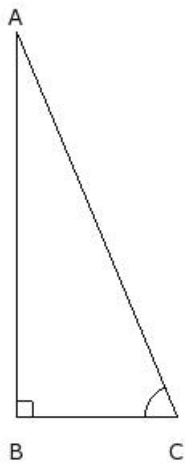
- (i) $\frac{FD}{ED}$ (ii) $\frac{FD}{FE}$ (iii) $\frac{DE}{DF}$ (iv) $\frac{DF}{DE}$ (v) $\frac{FE}{GE}$

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



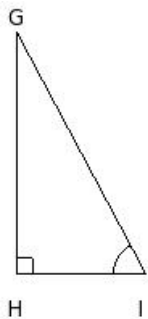
- (i) $\frac{RQ}{PR}$ (ii) $\frac{SR}{RQ}$ (iii) $\frac{QR}{PQ}$ (iv) $\frac{PQ}{RP}$ (v) $\frac{QR}{RP}$

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



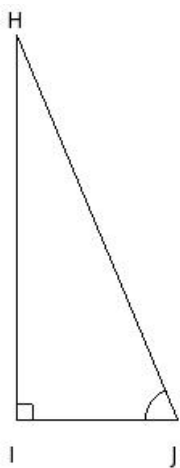
- (i) $\frac{BC}{AB}$ (ii) $\frac{AC}{CB}$ (iii) $\frac{DC}{CB}$ (iv) $\frac{CA}{AB}$ (v) $\frac{BC}{CA}$

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



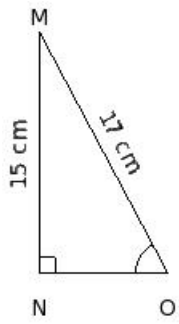
- (i) $\frac{IH}{IG}$ (ii) $\frac{GH}{GI}$ (iii) $\frac{GI}{HI}$ (iv) $\frac{JH}{JI}$ (v) $\frac{HG}{HI}$

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



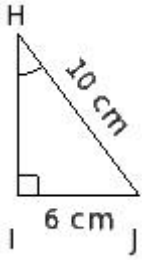
- (i) $\frac{IH}{JH}$ (ii) $\frac{JI}{HI}$ (iii) $\frac{KI}{JI}$ (iv) $\frac{HI}{JI}$ (v) $\frac{HJ}{HI}$

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



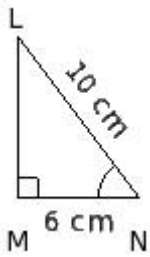
- (i) $\frac{15}{17}$ (ii) $\frac{13}{17}$ (iii) $\frac{15}{19}$ (iv) 1

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



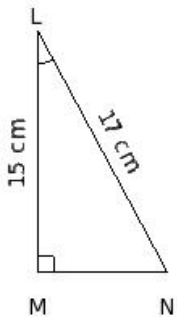
- (i) $\frac{2}{5}$ (ii) $\frac{4}{5}$ (iii) $\frac{4}{3}$ (iv) $\frac{6}{5}$ (v) $\frac{4}{7}$

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



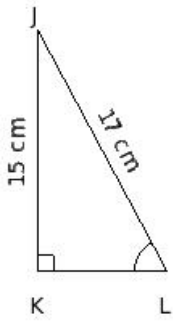
- (i) $\frac{4}{5}$ (ii) $\frac{2}{3}$ (iii) $\frac{4}{3}$ (iv) 4 (v) 2

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



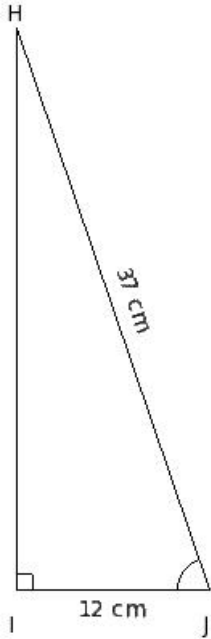
- (i) $\frac{3}{2}$ (ii) $\frac{5}{2}$ (iii) $\frac{15}{8}$ (iv) $\frac{13}{8}$ (v) $\frac{17}{8}$

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



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

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



- (i) $\frac{39}{35}$ (ii) 1 (iii) $\frac{37}{33}$ (iv) $\frac{37}{35}$

13. $\sin C =$

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

14. $\cos I =$

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

15. $\tan K =$

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

16. $\cot$

L =

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

17. $\sec M =$

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

18. $\operatorname{cosec} E =$

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

19. In $\triangle NOP$, right angled at O, if NO = 8 cm and OP = 6 cm, find $\sin P$

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

20. In $\triangle NOP$, right angled at O, if NO = 15 cm and OP = 8 cm, find $\cos N$

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

21. In $\triangle FGH$, right angled at G, if FG = 15 cm and GH = 8 cm, find $\tan F$

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

22. In $\triangle DEF$, right angled at E, if DE = 8 cm and EF = 6 cm, find $\cot D$

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

23. In $\triangle FGH$, right angled at G, if FG = 8 cm and GH = 6 cm, find $\sec H$

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

24. In $\triangle DEF$, right angled at E, if DE = 35 cm and EF = 12 cm, find $\operatorname{cosec} D$

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

Assignment Key

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