

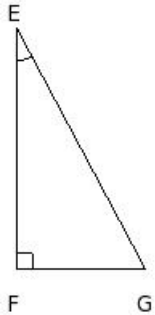
EduSahara™ Learning Center Assignment

Grade : Class X, CBSE

Chapter : Introduction to Trigonometry

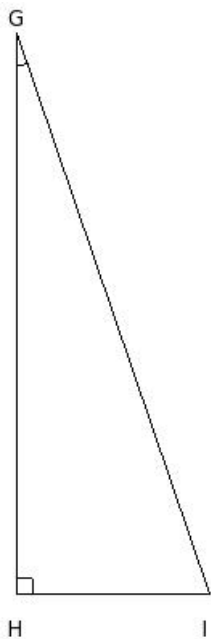
Name : Basics of Trigonometric Ratios

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



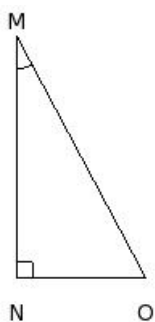
- (i) $\frac{HG}{HF}$ (ii) $\frac{EF}{GF}$ (iii) $\frac{FG}{FE}$ (iv) $\frac{FG}{EG}$ (v) $\frac{GF}{EF}$

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



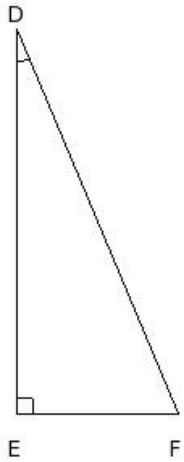
- (i) $\frac{IG}{IH}$ (ii) $\frac{GI}{GH}$ (iii) $\frac{IG}{HG}$ (iv) $\frac{GH}{GI}$ (v) $\frac{IH}{JH}$

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



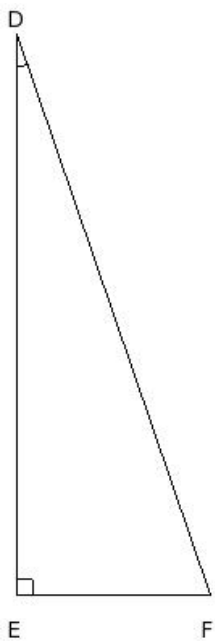
(i) $\frac{PO}{ON}$ (ii) $\frac{ON}{MO}$ (iii) $\frac{NO}{MN}$ (iv) $\frac{MN}{OM}$ (v) $\frac{NO}{OM}$

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



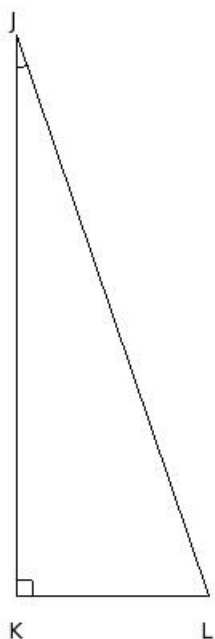
(i) $\frac{DF}{FE}$ (ii) $\frac{FE}{GF}$ (iii) $\frac{FD}{DE}$ (iv) $\frac{FD}{EF}$ (v) $\frac{DE}{EF}$

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



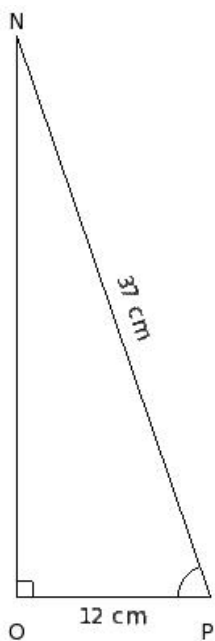
(i) $\frac{DF}{DE}$ (ii) $\frac{ED}{FD}$ (iii) $\frac{GE}{FE}$ (iv) $\frac{DE}{DF}$ (v) $\frac{FE}{FD}$

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



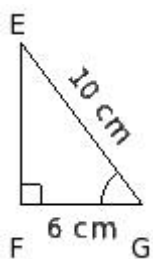
- (i) $\frac{KJ}{KL}$ (ii) $\frac{JK}{LK}$ (iii) $\frac{JL}{KL}$ (iv) $\frac{LK}{JK}$ (v) $\frac{MK}{ML}$

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



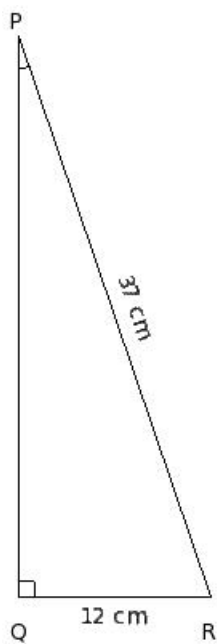
- (i) $\frac{33}{37}$ (ii) $\frac{35}{37}$ (iii) $\frac{35}{39}$ (iv) 1

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



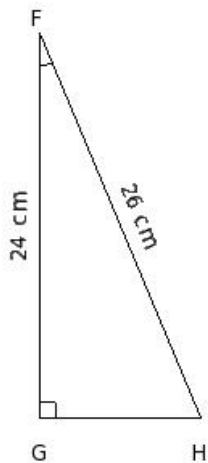
- (i) $\frac{3}{5}$ (ii) $\frac{3}{7}$ (iii) 1 (iv) $\frac{1}{5}$

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



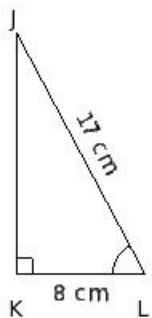
- (i) $\frac{4}{11}$ (ii) $\frac{2}{5}$ (iii) $\frac{12}{35}$ (iv) $\frac{2}{7}$ (v) $\frac{12}{37}$

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



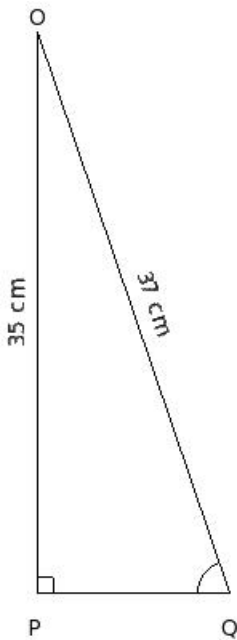
- (i) $\frac{12}{7}$ (ii) $\frac{14}{5}$ (iii) 2 (iv) $\frac{12}{5}$ (v) 4

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



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

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



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

13. $\sin L =$

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

14. $\cos M =$

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

15. $\tan E =$

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

16. $\cot I =$

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

17. $\sec L =$

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

18. cosec

$$G =$$

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

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

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

20. In $\triangle EFG$, right angled at F, if $EF = 15$ cm and $FG = 8$ cm, find $\cos E$

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

21. In $\triangle MNO$, right angled at N, if $MN = 24$ cm and $NO = 10$ cm, find $\tan O$

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

22. In $\triangle BCD$, right angled at C, if $BC = 35$ cm and $CD = 12$ cm, find $\cot D$

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

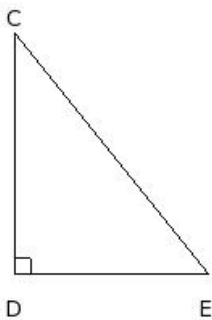
23. In $\triangle NOP$, right angled at O, if $NO = 35$ cm and $OP = 12$ cm, find $\sec P$

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

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

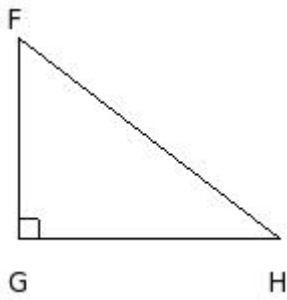
$$(i) \frac{39}{35} \quad (ii) \frac{37}{35} \quad (iii) 1 \quad (iv) \frac{37}{33}$$

25. From the given figure, find $\sin(90^\circ - E)$



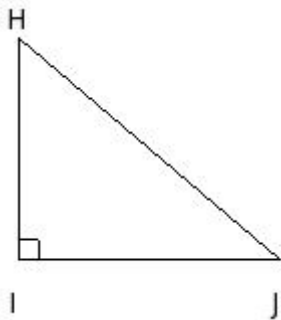
$$(i) \frac{CE}{CD} \quad (ii) \frac{DE}{CD} \quad (iii) \frac{DE}{CE} \quad (iv) \frac{CD}{DE} \quad (v) \frac{CD}{CE}$$

26. From the given figure, find $\cos(90^\circ - H)$



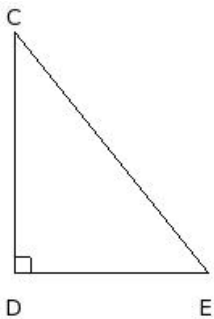
- (i) $\frac{GH}{FG}$ (ii) $\frac{GH}{FH}$ (iii) $\frac{FG}{GH}$ (iv) $\frac{FH}{GH}$ (v) $\frac{FG}{FH}$

27. From the given figure, find $\tan(90^\circ - H)$



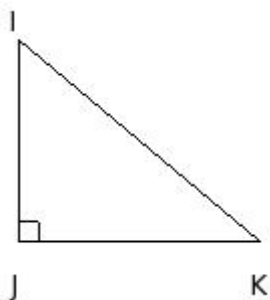
- (i) $\frac{HJ}{HI}$ (ii) $\frac{HI}{IJ}$ (iii) $\frac{HJ}{IJ}$ (iv) $\frac{HI}{HJ}$ (v) $\frac{IJ}{HJ}$

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



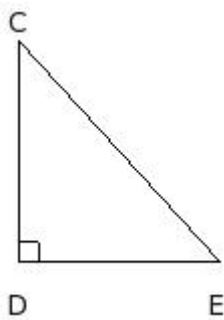
- (i) $\frac{CE}{DE}$ (ii) $\frac{CD}{DE}$ (iii) $\frac{CD}{CE}$ (iv) $\frac{DE}{CD}$ (v) $\frac{CE}{CD}$

29. From the given figure, find $\sec(90^\circ - K)$



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

30. From the given figure, find $\cot(90^\circ - C)$



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

Assignment Key

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