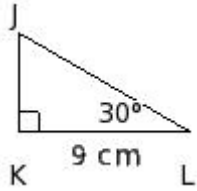


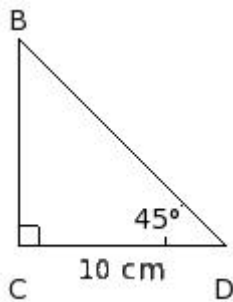
EduSahara™ Learning Center Assignment**Grade : Class X, SSC****Chapter : Trigonometry****Name : Trigonometry Diagram Problems**

1. In the given figure, $\triangle JKL$ is right angled at K. If $KL = 9$ cm and $\angle L = 30^\circ$, find JK and JL



- (i) $3\sqrt{\frac{1}{3}}$ cm & 21 cm
- (ii) $3\sqrt{3}$ cm & $6\sqrt{3}$ cm
- (iii) $3\sqrt{3}$ cm & 18 cm
- (iv) $3\sqrt{3}$ cm & 21 cm
- (v) $3\sqrt{3}$ cm & $6\sqrt{3}$ cm

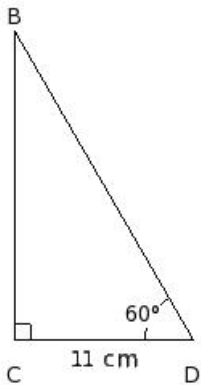
2. In the given figure, $\triangle BCD$ is right angled at C. If $CD = 10$ cm and $\angle D = 45^\circ$, find BC and BD



- (i) 9 cm & 23 cm
- (ii) 11 cm & 20 cm
- (iii) 10 cm & $10\sqrt{2}$ cm
- (iv) 11 cm & $10\sqrt{2}$ cm

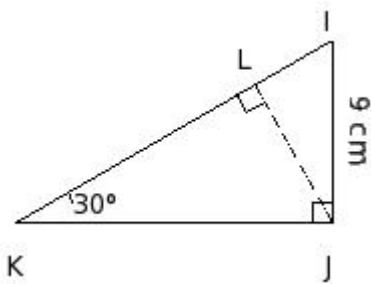
- (v) 11 cm & 23 cm

3. In the given figure, $\triangle BCD$ is right angled at C. If $CD = 11$ cm and $\angle D = 60^\circ$, find BC and BD



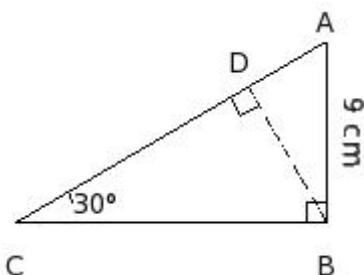
- (i) $11\sqrt{3}$ cm & 21 cm
- (ii) 11 cm & 23 cm
- (iii) $11\sqrt{3}$ cm & 23 cm
- (iv) $11\sqrt{3}$ cm & 22 cm
- (v) $11\sqrt{3}$ cm & 22 cm

4. In the given figure, $\triangle IKJ$ is right angled at J. If $IJ = 9$ cm and $\angle K = 30^\circ$, find IK



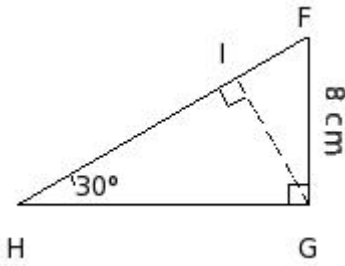
- (i) 18 cm (ii) 20 cm (iii) 17 cm (iv) 16 cm (v) 19 cm

5. In the given figure, $\triangle ACB$ is right angled at B. If $AB = 9$ cm and $\angle C = 30^\circ$, find BC



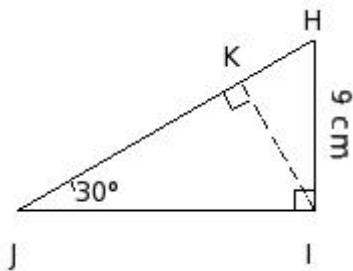
- (i) $\frac{27}{2} \sqrt{2}$ cm (ii) 9 cm (iii) $9 \sqrt{3}$ cm (iv) 27 cm (v) $9 \sqrt{18}$ cm

6. In the given figure, $\triangle FHG$ is right angled at G. If $FG = 8$ cm and $\angle H = 30^\circ$, find FI



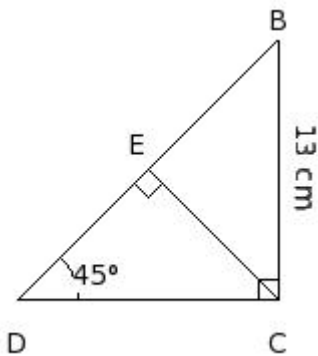
- (i) 1 cm (ii) 4 cm (iii) 5 cm (iv) 3 cm (v) 6 cm

7. In the given figure, $\triangle HJI$ is right angled at I. If $HI = 9$ cm and $\angle J = 30^\circ$, find JK



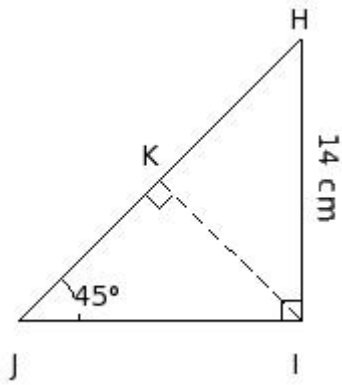
- (i) $\frac{25}{2}$ cm (ii) 27 cm (iii) $\frac{27}{2}$ cm (iv) $\frac{29}{2}$ cm (v) $\frac{27}{4}$ cm

8. In the given figure, $\triangle BDC$ is right angled at C. If $BC = 13$ cm and $\angle D = 45^\circ$, find BD



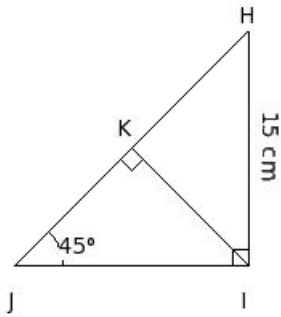
- (i) $\frac{13}{2} \sqrt{12}$ cm (ii) 26 cm (iii) $26 \sqrt{3}$ cm (iv) $13 \sqrt{2}$ cm (v) 13 cm

9. In the given figure, $\triangle HJI$ is right angled at I. If $HI = 14$ cm and $\angle J = 45^\circ$, find IJ



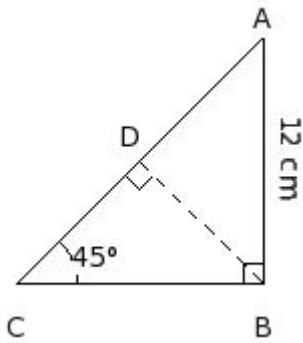
- (i) 15 cm (ii) 11 cm (iii) 14 cm (iv) 16 cm (v) 13 cm

10. In the given figure, $\triangle HJI$ is right angled at I. If $HI = 15$ cm and $\angle J = 45^\circ$, find HK



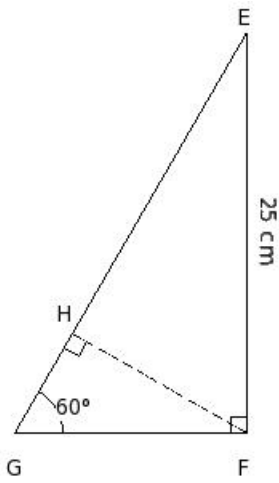
- (i) $15\sqrt{3}$ cm (ii) $\frac{15}{2}$ cm (iii) 15 cm (iv) $\frac{15}{4}\sqrt{12}$ cm (v) $\frac{15}{2}\sqrt{2}$ cm

11. In the given figure, $\triangle ACB$ is right angled at B. If $AB = 12$ cm and $\angle C = 45^\circ$, find CD



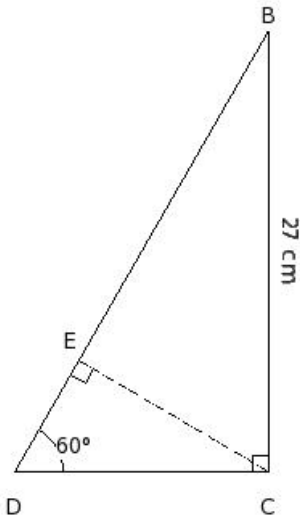
- (i) $3\sqrt{12}$ cm (ii) $6\sqrt{2}$ cm (iii) 12 cm (iv) 6 cm (v) $12\sqrt{3}$ cm

12. In the given figure, $\triangle EGF$ is right angled at F. If $EF = 25$ cm and $\angle G = 60^\circ$, find EG



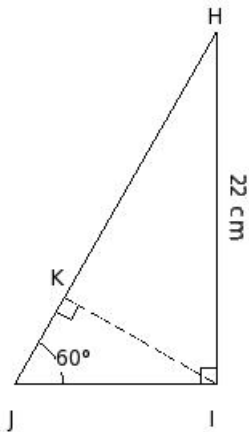
- (i) $\frac{50}{3} \sqrt{18}$ cm (ii) $\frac{50}{3} \sqrt{3}$ cm (iii) $\frac{50}{3}$ cm (iv) $25 \sqrt{2}$ cm (v) 50 cm

13. In the given figure, $\triangle BDC$ is right angled at C. If $BC = 27$ cm and $\angle D = 60^\circ$, find CD



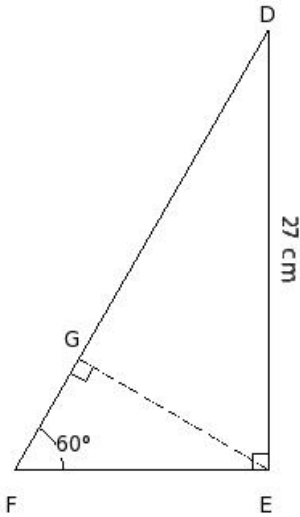
- (i) 27 cm (ii) $\frac{27}{2} \sqrt{2}$ cm (iii) $9 \sqrt{3}$ cm (iv) 9 cm (v) $9 \sqrt{18}$ cm

14. In the given figure, $\triangle HJI$ is right angled at I. If $HI = 22$ cm and $\angle J = 60^\circ$, find HK



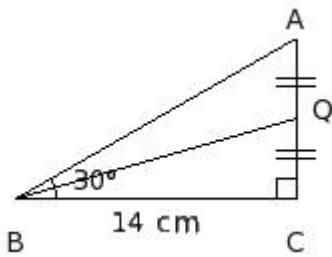
- (i) $\frac{33}{2} \sqrt{2}$ cm (ii) $11 \sqrt{18}$ cm (iii) 11 cm (iv) $11 \sqrt{3}$ cm (v) 33 cm

15. In the given figure, $\triangle DFE$ is right angled at E. If $DE = 27$ cm and $\angle F = 60^\circ$, find FG



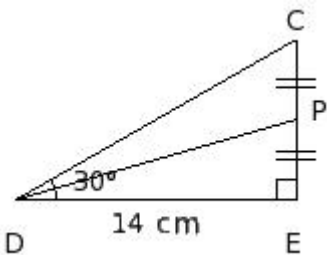
- (i) $\frac{9}{2}$ cm (ii) $\frac{9}{2} \sqrt{18}$ cm (iii) $\frac{27}{2}$ cm (iv) $\frac{9}{2} \sqrt{3}$ cm (v) $\frac{27}{4} \sqrt{2}$ cm

16. In the given figure, $\triangle ABC$ is a right angle triangle with $\angle C = 90^\circ$ and $BC = 14$ cm. Q is the mid-point of AC. Find QC



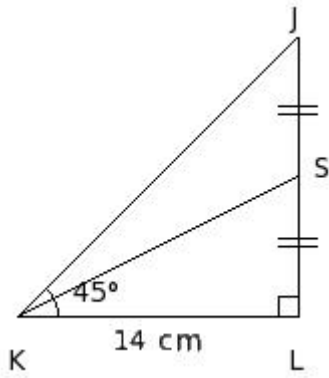
- (i) $\frac{7}{3} \sqrt{18}$ cm (ii) $\frac{7}{3} \sqrt{3}$ cm (iii) $\frac{7}{2} \sqrt{2}$ cm (iv) $\frac{7}{3}$ cm (v) 7 cm

17. In the given figure, $\triangle CDE$ is a right angle triangle with $\angle E = 90^\circ$ and $DE = 14$ cm. P is the mid-point of CE. Find the length of the altitude from E to CD



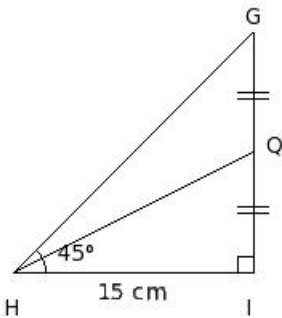
- (i) 8 cm (ii) 10 cm (iii) 5 cm (iv) 6 cm (v) 7 cm

18. In the given figure, $\triangle JKL$ is a right angle triangle with $\angle L = 90^\circ$ and $KL = 14$ cm. S is the mid-point of JL. Find SL



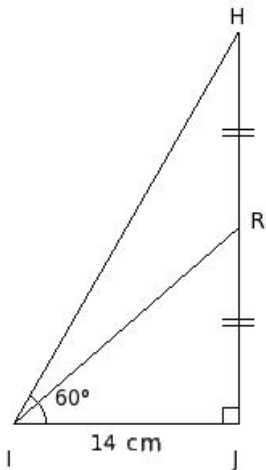
- (i) 7 cm (ii) 6 cm (iii) 9 cm (iv) 8 cm (v) 5 cm

19. In the given figure, $\triangle GHI$ is a right angle triangle with $\angle I = 90^\circ$ and $HI = 15$ cm. Q is the mid-point of GI. Find the length of the altitude from I to GH



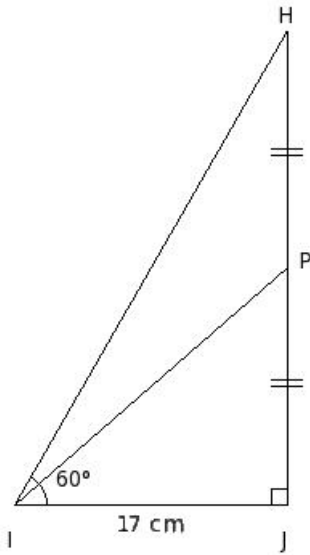
- (i) 15 cm (ii) $\frac{15}{2}$ cm (iii) $\frac{15}{2} \sqrt{2}$ cm (iv) $15 \sqrt{3}$ cm (v) $\frac{15}{4} \sqrt{12}$ cm

20. In the given figure, $\triangle HIJ$ is a right angle triangle with $\angle J = 90^\circ$ and $IJ = 14$ cm. R is the mid-point of HJ. Find RJ



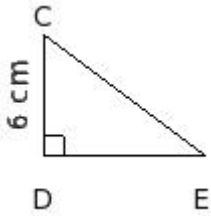
- (i) $7 \sqrt{18}$ cm (ii) $\frac{21}{2} \sqrt{2}$ cm (iii) 7 cm (iv) 21 cm (v) $7 \sqrt{3}$ cm

21. In the given figure, $\triangle HIJ$ is a right angle triangle with $\angle J = 90^\circ$ and $IJ = 17$ cm. P is the mid-point of HJ. Find the length of the altitude from J to HI



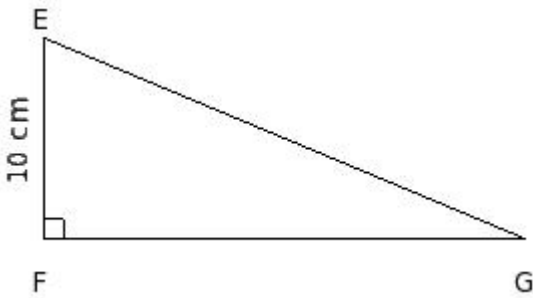
- (i) $\frac{17}{2} \sqrt{18}$ cm (ii) $\frac{17}{2} \sqrt{3}$ cm (iii) $\frac{51}{2}$ cm (iv) $\frac{51}{4} \sqrt{2}$ cm (v) $\frac{17}{2}$ cm

22. In the given figure, if $CE - DE = 2$ cm, and $CD = 6$ cm, find $\sin C$



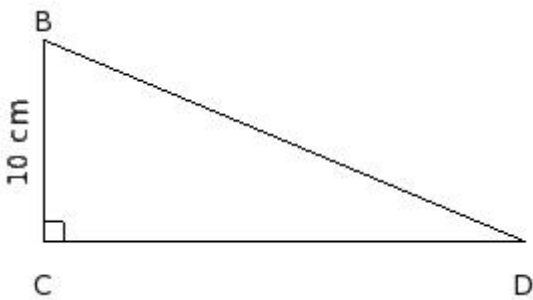
- (i) $\frac{2}{5}$ (ii) $\frac{4}{5}$ (iii) $\frac{4}{3}$ (iv) $\frac{4}{7}$ (v) $\frac{6}{5}$

23. In the given figure, if $EG - FG = 2$ cm, and $EF = 10$ cm, find $\cos E$



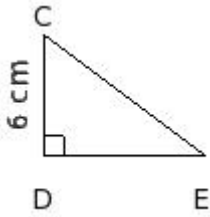
- (i) $\frac{3}{13}$ (ii) $\frac{1}{3}$ (iii) $\frac{5}{11}$ (iv) $\frac{7}{13}$ (v) $\frac{5}{13}$

24. In the given figure, if $BD - CD = 2$ cm, and $BC = 10$ cm, find $\tan B$



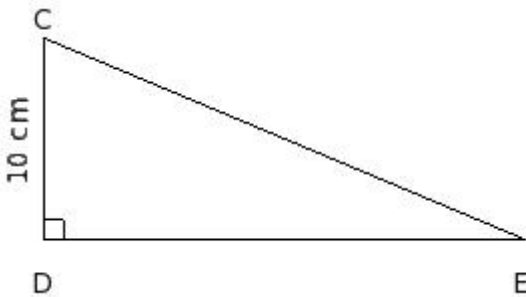
- (i) 2 (ii) $\frac{12}{7}$ (iii) $\frac{12}{5}$ (iv) 4 (v) $\frac{14}{5}$

25. In the given figure, if $CE + DE = 18$ cm , and $CD = 6$ cm , find $\sin C$



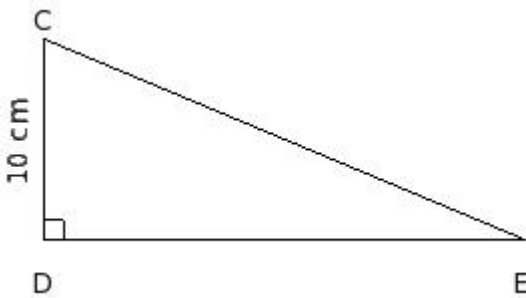
- (i) $\frac{6}{5}$ (ii) $\frac{4}{7}$ (iii) $\frac{4}{3}$ (iv) $\frac{2}{5}$ (v) $\frac{4}{5}$

26. In the given figure, if $CE + DE = 50$ cm , and $CD = 10$ cm , find $\cos C$



- (i) $\frac{3}{13}$ (ii) $\frac{1}{3}$ (iii) $\frac{7}{13}$ (iv) $\frac{5}{13}$ (v) $\frac{5}{11}$

27. In the given figure, if $CE + DE = 50$ cm , and $CD = 10$ cm , find $\tan C$



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

Assignment Key

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