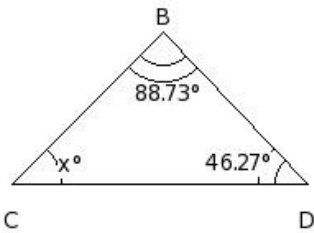




1. Two angles of a triangle measure 65° and 50° respectively. Find the measure of the third angle of the triangle
(i) 64° (ii) 66° (iii) 63° (iv) 65° (v) 67°

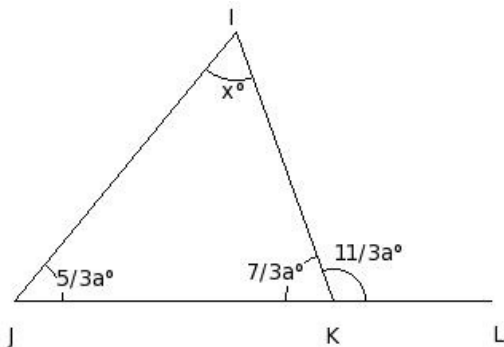
2. The angles of a triangle ABC are in the ratio 15 : 9 : 21. Find the measure of each angle of the triangle
(i) $A=60^\circ, B=36^\circ, C=84^\circ$ (ii) $A=58^\circ, B=36^\circ, C=86^\circ$ (iii) $A=62^\circ, B=36^\circ, C=82^\circ$ (iv) $A=60^\circ, B=34^\circ, C=86^\circ$
(v) $A=58^\circ, B=38^\circ, C=84^\circ$

3. Find the unknown angle from the following figure



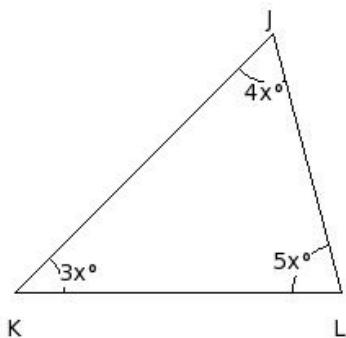
- (i) $x=45^\circ$ (ii) $x=43^\circ$ (iii) $x=46^\circ$ (iv) $x=44^\circ$ (v) $x=47^\circ$

4. In the given figure, $\triangle IJK$ in which side JK has been produced to L. If $\angle KIJ = x^\circ$, $\angle IJK = (5/3a)^\circ$, $\angle JKI = (7/3a)^\circ$ and $\angle IKL = (11/3a)^\circ$, find the values of a and x.



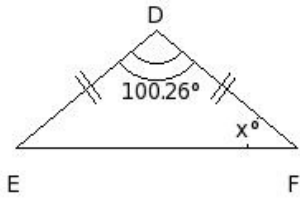
- (i) $a=31^\circ, x=61^\circ$ (ii) $a=30^\circ, x=60^\circ$ (iii) $a=28^\circ, x=58^\circ$ (iv) $a=29^\circ, x=59^\circ$ (v) $a=32^\circ, x=62^\circ$

5. Find the angles of the triangle



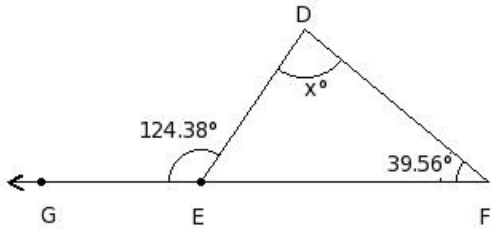
- (i) $J=60^\circ, K=45^\circ, L=75^\circ$ (ii) $J=58^\circ, K=45^\circ, L=77^\circ$ (iii) $J=60^\circ, K=43^\circ, L=77^\circ$ (iv) $J=58^\circ, K=47^\circ, L=75^\circ$
(v) $J=62^\circ, K=45^\circ, L=73^\circ$

6. Calculate the value of x in the following figure



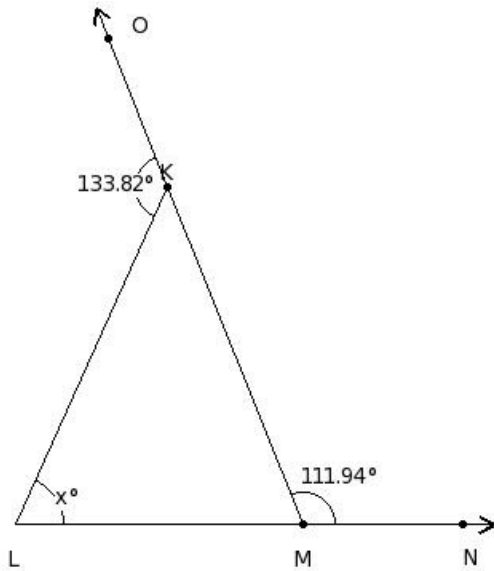
- (i) $x=39.87^\circ$ (ii) $x=38.87^\circ$ (iii) $x=41.87^\circ$ (iv) $x=40.87^\circ$ (v) $x=37.87^\circ$

7. Calculate the value of x in the following figure



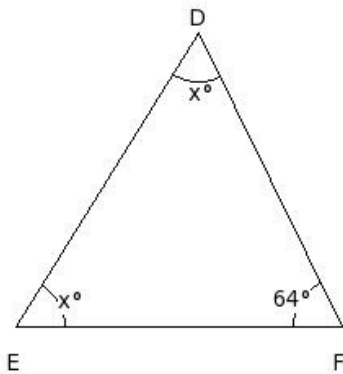
- (i) $x=83.82^\circ$ (ii) $x=84.82^\circ$ (iii) $x=85.82^\circ$ (iv) $x=82.82^\circ$ (v) $x=86.82^\circ$

8. Find the unknown marked angle in the following figure



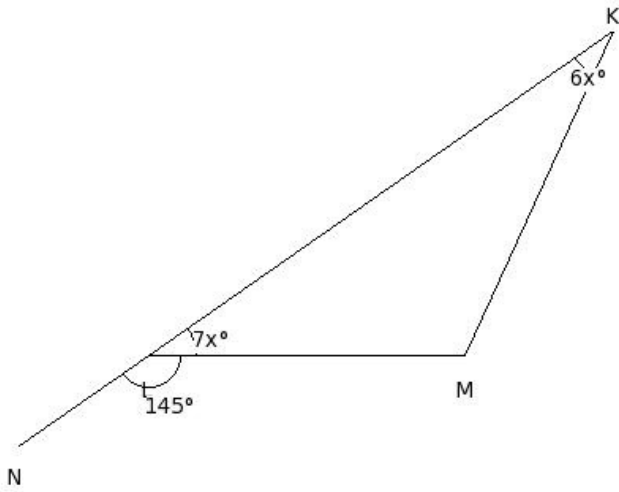
- (i) $x=66.76^\circ$ (ii) $x=67.76^\circ$ (iii) $x=65.76^\circ$ (iv) $x=64.76^\circ$ (v) $x=63.76^\circ$

9. Find the unknown angles in the following figure



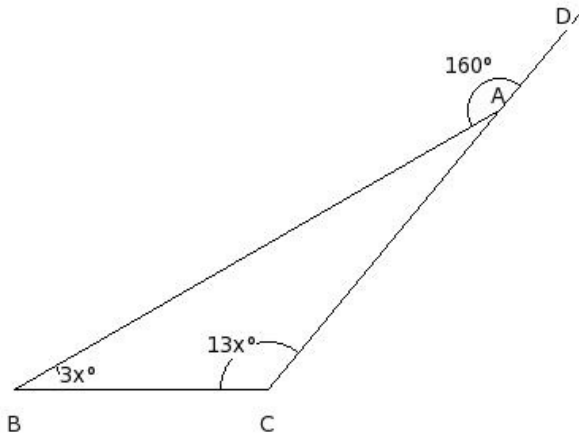
- (i) $D=57^\circ, E=57^\circ$ (ii) $D=58^\circ, E=58^\circ$ (iii) $D=60^\circ, E=60^\circ$ (iv) $D=56^\circ, E=56^\circ$ (v) $D=59^\circ, E=59^\circ$

10. In the following figure, one side of a triangle has been produced. Find all the angles of the triangle



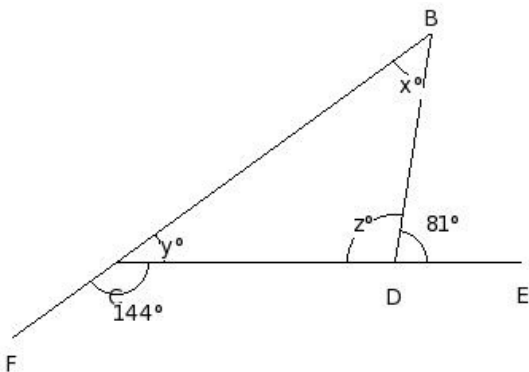
- (i) $K=30^\circ, L=35^\circ, M=115^\circ$ (ii) $K=28^\circ, L=37^\circ, M=115^\circ$ (iii) $K=32^\circ, L=35^\circ, M=113^\circ$
 (iv) $K=30^\circ, L=33^\circ, M=117^\circ$ (v) $K=28^\circ, L=35^\circ, M=117^\circ$

11. In the following figure, one side of a triangle has been produced. Find all the angles of the triangle.



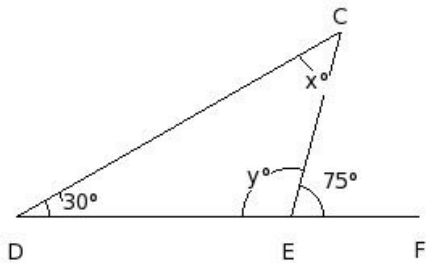
- (i) $A=20^\circ, B=30^\circ, C=130^\circ$ (ii) $A=18^\circ, B=30^\circ, C=132^\circ$ (iii) $A=22^\circ, B=30^\circ, C=128^\circ$
 (iv) $A=18^\circ, B=32^\circ, C=130^\circ$ (v) $A=20^\circ, B=28^\circ, C=132^\circ$

12. In the following figure, two sides of a triangle have been produced. Find all the angles of the triangle.



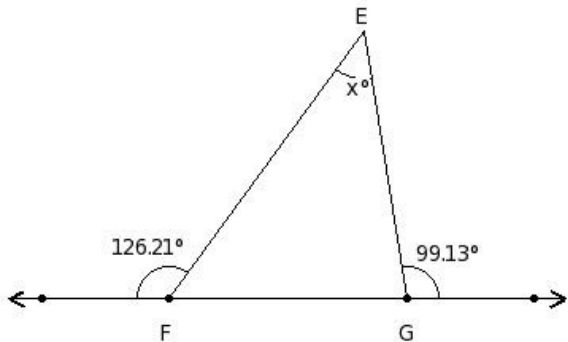
- (i) $x=43^\circ, y=38^\circ, z=99^\circ$ (ii) $x=45^\circ, y=36^\circ, z=99^\circ$ (iii) $x=43^\circ, y=36^\circ, z=101^\circ$ (iv) $x=47^\circ, y=36^\circ, z=97^\circ$
 (v) $x=45^\circ, y=34^\circ, z=101^\circ$

13. In the following figure, one side of a triangle has been produced. Find the values of x and y .



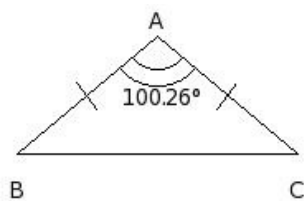
- (i) $x=47^\circ, y=107^\circ$ (ii) $x=45^\circ, y=105^\circ$ (iii) $x=46^\circ, y=106^\circ$ (iv) $x=43^\circ, y=103^\circ$ (v) $x=44^\circ, y=104^\circ$

14. Calculate the value of the lettered angle in the following figure



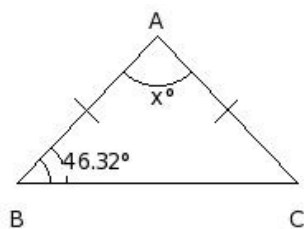
- (i) $x=47.34^\circ$ (ii) $x=44.34^\circ$ (iii) $x=46.34^\circ$ (iv) $x=45.34^\circ$ (v) $x=43.34^\circ$

15. In the given triangle, $\angle A = 100.26^\circ$. Find the measure of $\angle B$ and $\angle C$



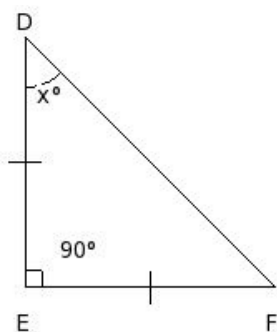
- (i) $\angle B = \angle C = 38.87^\circ$ (ii) $\angle B = \angle C = 41.87^\circ$ (iii) $\angle B = \angle C = 40.87^\circ$ (iv) $\angle B = \angle C = 37.87^\circ$
 (v) $\angle B = \angle C = 39.87^\circ$

16. Find the unknown angle in the following figure



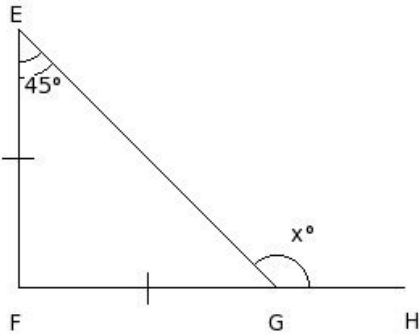
- (i) $x=86.36^\circ$ (ii) $x=87.36^\circ$ (iii) $x=89.36^\circ$ (iv) $x=88.36^\circ$ (v) $x=85.36^\circ$

17. Find the unknown angle in the following figure



- (i) $x=46^\circ$ (ii) $x=43^\circ$ (iii) $x=44^\circ$ (iv) $x=45^\circ$ (v) $x=47^\circ$

18. Find the unknown angle in the following figure



- (i) $x=136^\circ$ (ii) $x=134^\circ$ (iii) $x=135^\circ$ (iv) $x=133^\circ$ (v) $x=137^\circ$

19. In $\triangle ABC$, if $\angle A = 70^\circ$ and $\angle B = 59^\circ$, find the measure of $\angle C$

- (i) $C=51^\circ$ (ii) $C=53^\circ$ (iii) $C=49^\circ$ (iv) $C=52^\circ$ (v) $C=50^\circ$

20. In $\triangle GHI$, if $\angle G = 80^\circ$ and $\angle H = \angle I$, find the measure of each of the equal angles of the triangle

- (i) 49° (ii) 51° (iii) 50° (iv) 52° (v) 48°

21. One angle of a triangle measures 54° and the other two angles are in the ratio 2 : 5. Find these angles.

- (i) $B=35^\circ, C=89^\circ$ (ii) $B=34^\circ, C=88^\circ$ (iii) $B=36^\circ, C=90^\circ$ (iv) $B=37^\circ, C=91^\circ$ (v) $B=38^\circ, C=92^\circ$

22. In a right-angled triangle, the two acute angles are in the ratio 2 : 7. Find these angles.

- (i) $A=18^\circ, C=68^\circ$ (ii) $A=21^\circ, C=71^\circ$ (iii) $A=20^\circ, C=70^\circ$ (iv) $A=19^\circ, C=69^\circ$ (v) $A=22^\circ, C=72^\circ$

23. One of the two equal angles of an isosceles triangle measures 43° . Find the measure of each angle of the triangle.

- (i) $A=41^\circ, B=43^\circ, C=96^\circ$ (ii) $A=45^\circ, B=43^\circ, C=92^\circ$ (iii) $A=41^\circ, B=45^\circ, C=94^\circ$ (iv) $A=43^\circ, B=41^\circ, C=96^\circ$
(v) $A=43^\circ, B=43^\circ, C=94^\circ$

24. Find the measure of each of the two equal angles of an isosceles right-angled triangle.

- (i) 47° (ii) 45° (iii) 43° (iv) 46° (v) 44°

25. If all the three angles of a triangle are of the same measure, find the measure of each of the angles.

- (i) 62° (ii) 60° (iii) 58° (iv) 59° (v) 61°

26. In a right-angled triangle if one of the acute angles is 47° , find the measure of the other acute angle.

- (i) 45° (ii) 44° (iii) 42° (iv) 43° (v) 41°

27. The vertical angle of an isosceles triangle is twice the sum of its base angles. Find each angle of the triangle.

- (i) $A=118^\circ, B=32^\circ, C=30^\circ$ (ii) $A=118^\circ, B=30^\circ, C=32^\circ$ (iii) $A=120^\circ, B=30^\circ, C=30^\circ$
(iv) $A=122^\circ, B=30^\circ, C=28^\circ$ (v) $A=120^\circ, B=28^\circ, C=32^\circ$

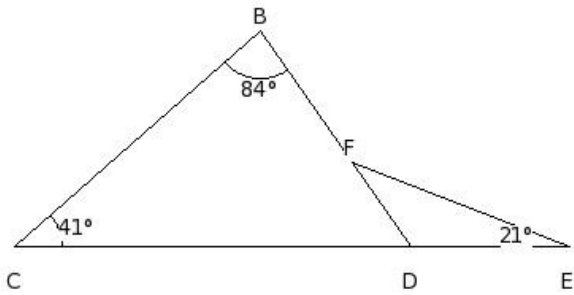
28. In an isosceles triangle, each base angle is four times its vertical angle. Find each angle of the triangle.

- (i) $A=18^\circ, B=82^\circ, C=80^\circ$ (ii) $A=18^\circ, B=80^\circ, C=82^\circ$ (iii) $A=22^\circ, B=80^\circ, C=78^\circ$ (iv) $A=20^\circ, B=80^\circ, C=80^\circ$
(v) $A=20^\circ, B=78^\circ, C=82^\circ$

29. The ratio between the base angle and the vertical angle of an isosceles triangle is 11 : 14. Find each angle of the triangle

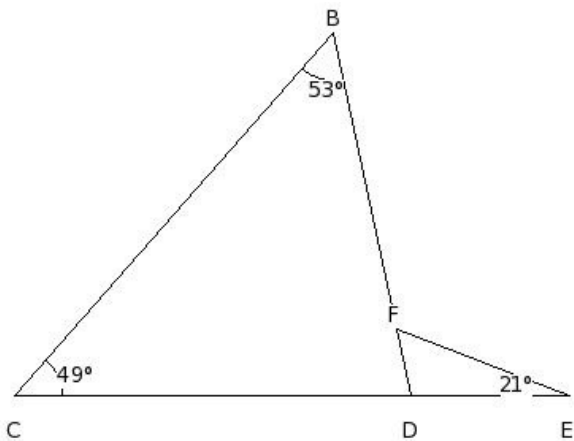
- (i) $A=72^\circ, B=55^\circ, C=53^\circ$ (ii) $A=68^\circ, B=55^\circ, C=57^\circ$ (iii) $A=70^\circ, B=53^\circ, C=57^\circ$ (iv) $A=68^\circ, B=57^\circ, C=55^\circ$
 (v) $A=70^\circ, B=55^\circ, C=55^\circ$

30. In the given figure, find $\angle CDB$



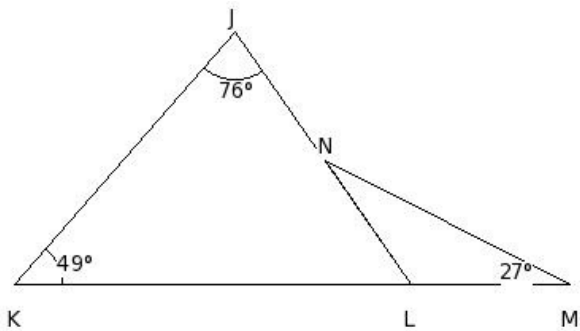
- (i) 57° (ii) 54° (iii) 55° (iv) 56° (v) 53°

31. In the given figure, find $\angle FDE$



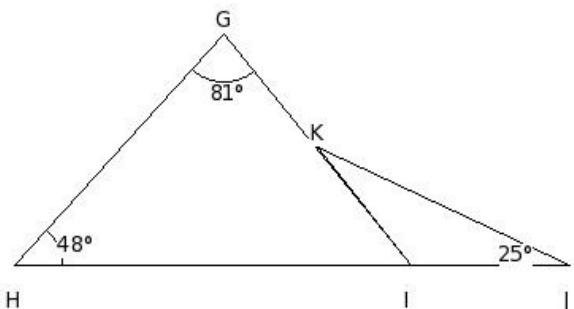
- (i) 100° (ii) 104° (iii) 103° (iv) 102° (v) 101°

32. In the given figure, find $\angle MNL$



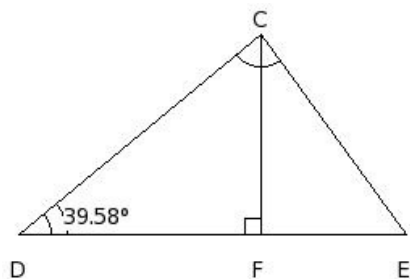
- (i) 27° (ii) 28° (iii) 29° (iv) 26° (v) 30°

33. In the given figure, find $\angle GKJ$



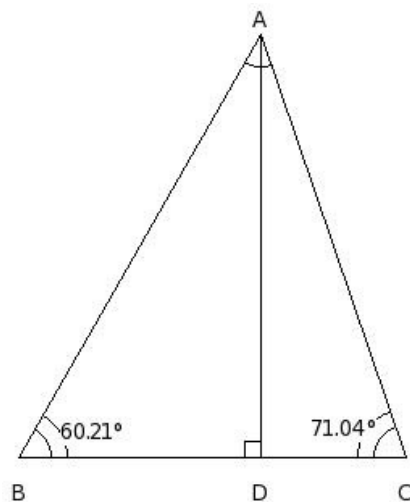
- (i) 152° (ii) 155° (iii) 156° (iv) 154° (v) 153°

34. In the given figure , if $FC \perp DE$ and $\angle CDF = 39.58^\circ$, find $\angle FCD$



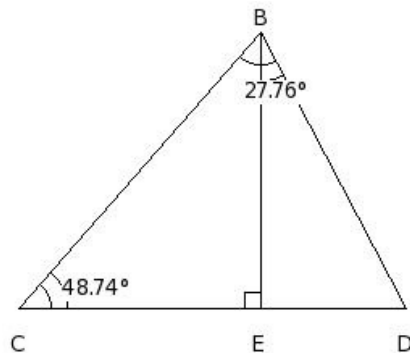
- (i) 51.42° (ii) 48.42° (iii) 49.42° (iv) 52.42° (v) 50.42°

35. In the given figure , if $DA \perp BC$ and $\angle ABD = 60.21^\circ$, find $\angle CAD$



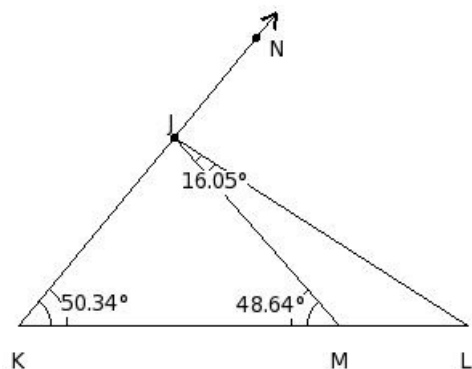
- (i) 18.96° (ii) 20.96° (iii) 16.96° (iv) 19.96° (v) 17.96°

36. In the given figure , if $EB \perp CD$ and $\angle BCE = 48.74^\circ$, find $\angle EDB$



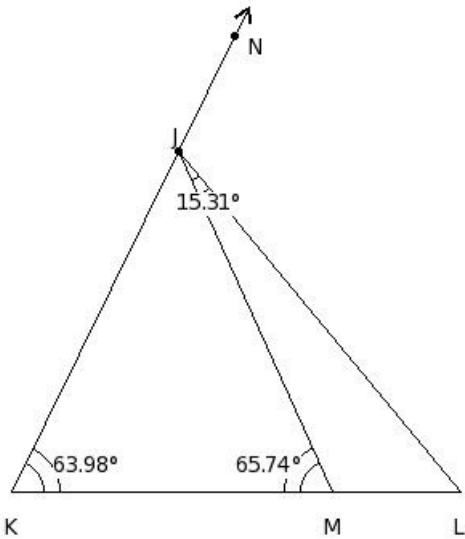
- (i) 60.24° (ii) 64.24° (iii) 62.24° (iv) 61.24° (v) 63.24°

37. In below given figure, find $\angle JML$



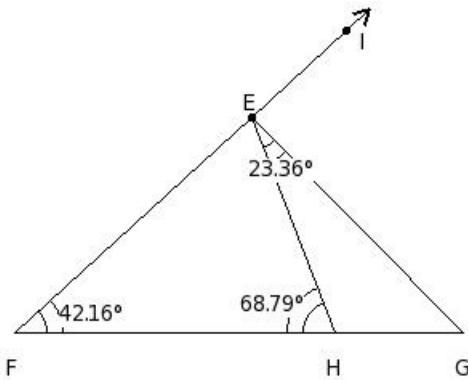
- (i) 131.36° (ii) 130.36° (iii) 129.36° (iv) 132.36° (v) 133.36°

38. In below given figure, find $\angle MJK$



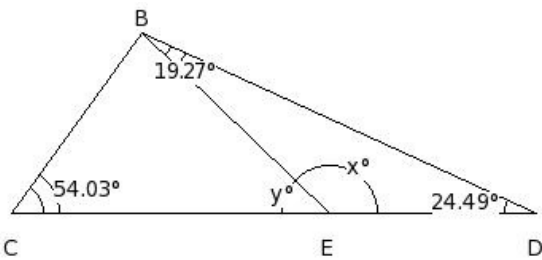
- (i) 51.28° (ii) 49.28° (iii) 50.28° (iv) 52.28° (v) 48.28°

39. In below given figure, find $\angle GEI$



- (i) 89.59° (ii) 86.59° (iii) 88.59° (iv) 85.59° (v) 87.59°

40. In the given figure, find the values of x and y .

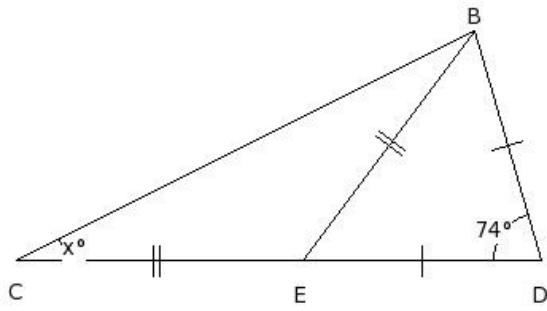


- (i) $x=137.24^\circ, y=44.76^\circ$ (ii) $x=135.24^\circ, y=42.76^\circ$ (iii) $x=134.24^\circ, y=41.76^\circ$ (iv) $x=136.24^\circ, y=43.76^\circ$
 (v) $x=138.24^\circ, y=45.76^\circ$

41. Each of the two equal angles of an isosceles triangle is half the third angle. Find the angles of the triangle

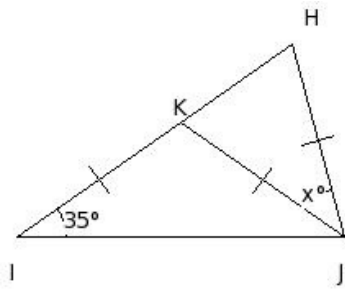
- (i) $X=47^\circ, Y=90^\circ, Z=43^\circ$ (ii) $X=43^\circ, Y=90^\circ, Z=47^\circ$ (iii) $X=45^\circ, Y=90^\circ, Z=45^\circ$ (iv) $X=43^\circ, Y=92^\circ, Z=45^\circ$
 (v) $X=45^\circ, Y=88^\circ, Z=47^\circ$

42. In the given figure, find the value of x .



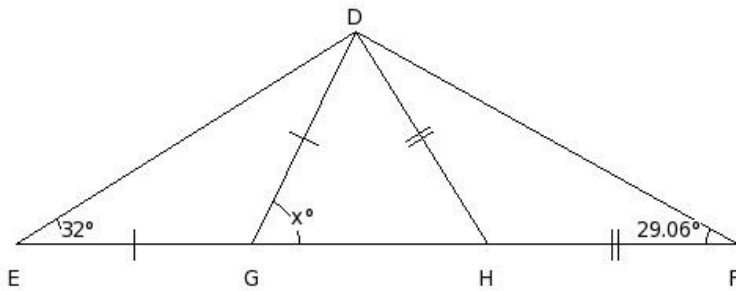
- (i) $x=25.5^\circ$ (ii) $x=28.5^\circ$ (iii) $x=24.5^\circ$ (iv) $x=27.5^\circ$ (v) $x=26.5^\circ$

43. In the given figure, if $JH = JK = KI$, find the value of x



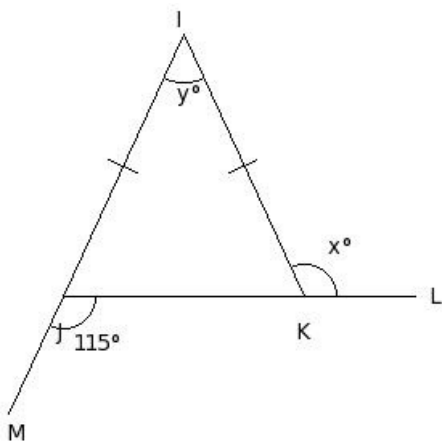
- (i) $x=40^\circ$ (ii) $x=39^\circ$ (iii) $x=41^\circ$ (iv) $x=42^\circ$ (v) $x=38^\circ$

44. In the given figure, if $GD = EG$ and $DH = HF$, find the value of x .



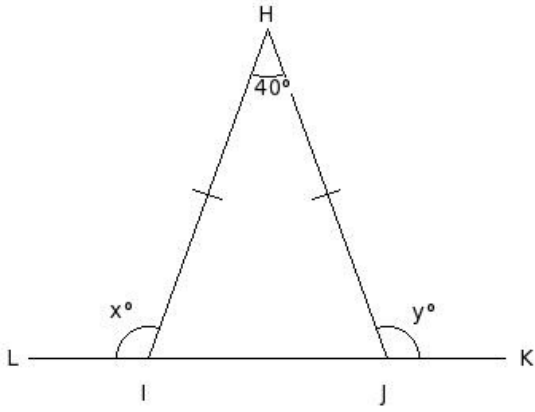
- (i) $x=62^\circ$ (ii) $x=64^\circ$ (iii) $x=63^\circ$ (iv) $x=66^\circ$ (v) $x=65^\circ$

45. Find the unknown marked angles in the following figure



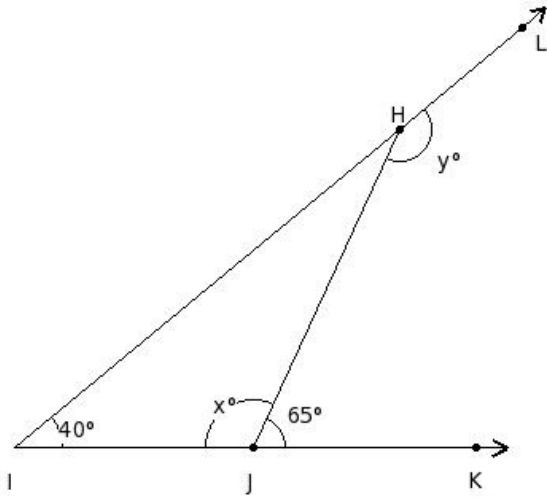
- (i) $x=113^\circ, y=48^\circ$ (ii) $x=117^\circ, y=52^\circ$ (iii) $x=116^\circ, y=51^\circ$ (iv) $x=115^\circ, y=50^\circ$ (v) $x=114^\circ, y=49^\circ$

46. Find the unknown marked angles in the following figure



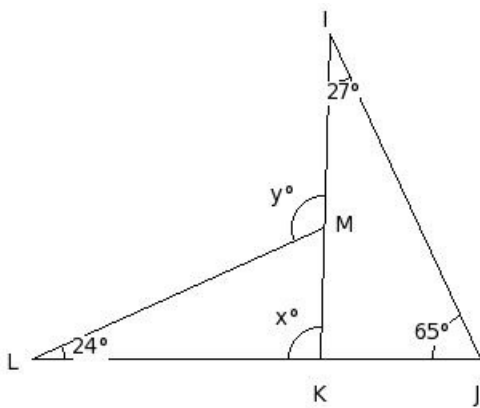
- (i) $x=111^\circ, y=111^\circ$ (ii) $x=109^\circ, y=109^\circ$ (iii) $x=112^\circ, y=112^\circ$ (iv) $x=110^\circ, y=110^\circ$ (v) $x=108^\circ, y=108^\circ$

47. Find the unknown marked angles in the following figure



- (i) $x=114^\circ, y=154^\circ$ (ii) $x=117^\circ, y=157^\circ$ (iii) $x=116^\circ, y=156^\circ$ (iv) $x=115^\circ, y=155^\circ$ (v) $x=113^\circ, y=153^\circ$

48. Find the unknown marked angles in the following figure



- (i) $x=94^\circ, y=118^\circ$ (ii) $x=90^\circ, y=114^\circ$ (iii) $x=92^\circ, y=116^\circ$ (iv) $x=91^\circ, y=115^\circ$ (v) $x=93^\circ, y=117^\circ$

Assignment Key

1) (iv)	2) (i)	3) (i)	4) (ii)	5) (i)	6) (i)
7) (ii)	8) (iii)	9) (ii)	10) (i)	11) (i)	12) (ii)
13) (ii)	14) (iv)	15) (v)	16) (ii)	17) (iv)	18) (iii)
19) (i)	20) (iii)	21) (iii)	22) (iii)	23) (v)	24) (ii)
25) (ii)	26) (iv)	27) (iii)	28) (iv)	29) (v)	30) (iii)
31) (iv)	32) (ii)	33) (iv)	34) (v)	35) (i)	36) (iii)
37) (i)	38) (iii)	39) (v)	40) (iv)	41) (iii)	42) (v)
43) (i)	44) (ii)	45) (iv)	46) (iv)	47) (iv)	48) (iii)