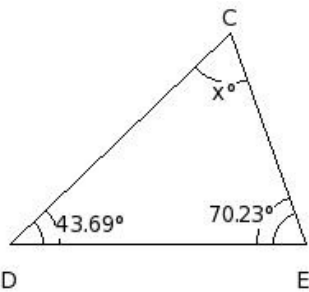




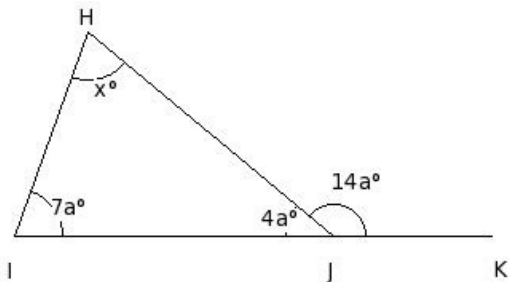
- Sum of the interior angles in a triangle is
(i) 195° (ii) 185° (iii) 180° (iv) 210° (v) 190°
- Two angles of a triangle measure 67° and 51° respectively. Find the measure of the third angle of the triangle
(i) 62° (ii) 64° (iii) 63° (iv) 60° (v) 61°
- The angles of a triangle ABC are in the ratio 5 : 11 : 14. Find the measure of each angle of the triangle
(i) $A=30^\circ, B=66^\circ, C=84^\circ$ (ii) $A=32^\circ, B=66^\circ, C=82^\circ$ (iii) $A=30^\circ, B=64^\circ, C=86^\circ$ (iv) $A=28^\circ, B=66^\circ, C=86^\circ$
(v) $A=28^\circ, B=68^\circ, C=84^\circ$

4. Find the unknown angle from the following figure



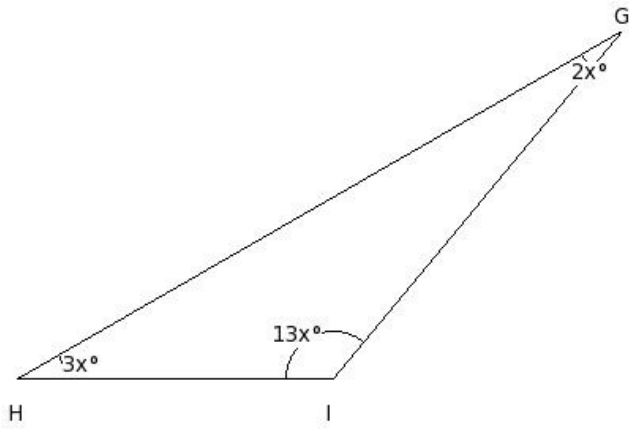
- (i) $x=64.08^\circ$ (ii) $x=68.08^\circ$ (iii) $x=67.08^\circ$ (iv) $x=65.08^\circ$ (v) $x=66.08^\circ$

5. In the given figure, $\triangle HIJ$ in which side IJ has been produced to K. If $\angle JHI = x^\circ$, $\angle HIJ = (7a)^\circ$, $\angle IJH = (4a)^\circ$ and $\angle HJK = (14a)^\circ$, find the values of a and x.



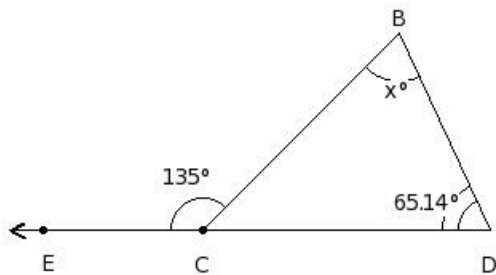
- (i) $a=12^\circ, x=72^\circ$ (ii) $a=8^\circ, x=68^\circ$ (iii) $a=9^\circ, x=69^\circ$ (iv) $a=10^\circ, x=70^\circ$ (v) $a=11^\circ, x=71^\circ$

6. Find the angles of the triangle



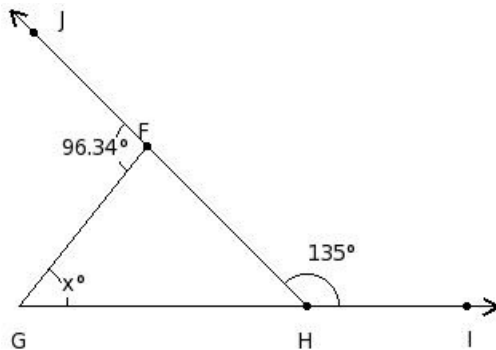
- (i) $G=20^\circ, H=28^\circ, I=132^\circ$ (ii) $G=22^\circ, H=30^\circ, I=128^\circ$ (iii) $G=18^\circ, H=30^\circ, I=132^\circ$
 (iv) $G=18^\circ, H=32^\circ, I=130^\circ$ (v) $G=20^\circ, H=30^\circ, I=130^\circ$

7. Calculate the value of x in the following figure



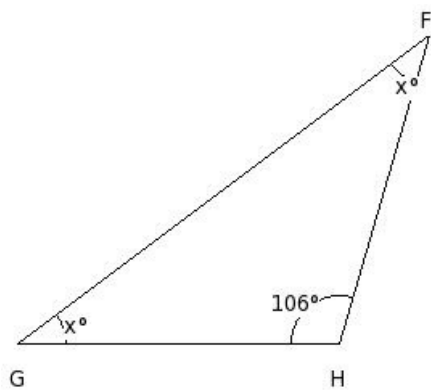
- (i) $x=67.86^\circ$ (ii) $x=69.86^\circ$ (iii) $x=70.86^\circ$ (iv) $x=71.86^\circ$ (v) $x=68.86^\circ$

8. Find the unknown marked angle in the following figure



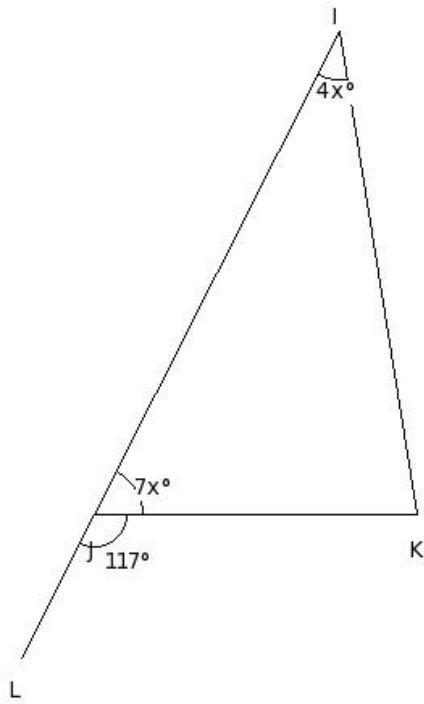
- (i) $x=50.34^\circ$ (ii) $x=53.34^\circ$ (iii) $x=52.34^\circ$ (iv) $x=49.34^\circ$ (v) $x=51.34^\circ$

9. Find the unknown angles in the following figure



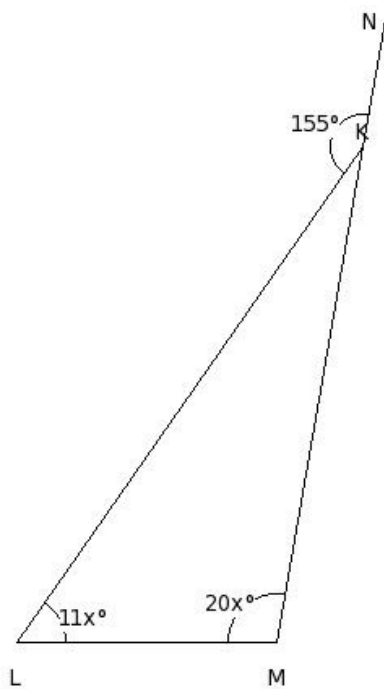
- (i) $F=37^\circ, G=37^\circ$ (ii) $F=39^\circ, G=39^\circ$ (iii) $F=38^\circ, G=38^\circ$ (iv) $F=35^\circ, G=35^\circ$ (v) $F=36^\circ, G=36^\circ$

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



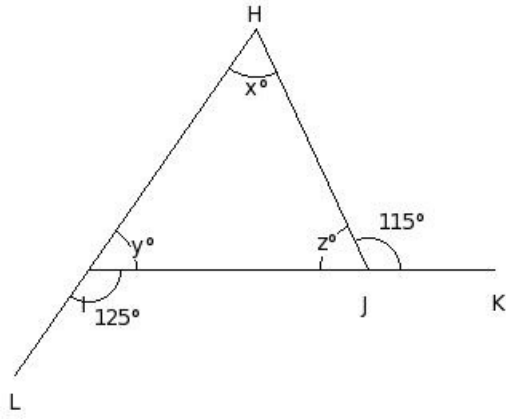
- (i) $I=36^\circ, J=63^\circ, K=81^\circ$ (ii) $I=34^\circ, J=65^\circ, K=81^\circ$ (iii) $I=38^\circ, J=63^\circ, K=79^\circ$ (iv) $I=36^\circ, J=61^\circ, K=83^\circ$
 (v) $I=34^\circ, J=63^\circ, K=83^\circ$

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



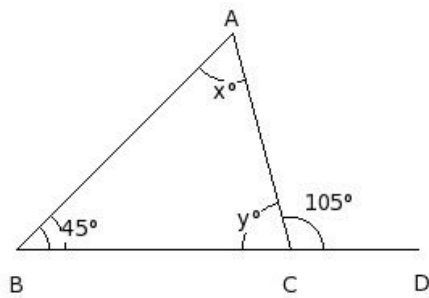
- (i) $K=25^\circ, L=55^\circ, M=100^\circ$ (ii) $K=27^\circ, L=55^\circ, M=98^\circ$ (iii) $K=23^\circ, L=57^\circ, M=100^\circ$
 (iv) $K=25^\circ, L=53^\circ, M=102^\circ$ (v) $K=23^\circ, L=55^\circ, M=102^\circ$

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



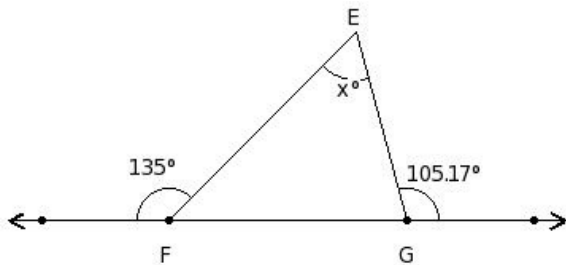
- (i) $x=60^\circ, y=55^\circ, z=65^\circ$ (ii) $x=58^\circ, y=57^\circ, z=65^\circ$ (iii) $x=60^\circ, y=53^\circ, z=67^\circ$ (iv) $x=58^\circ, y=55^\circ, z=67^\circ$
 (v) $x=62^\circ, y=55^\circ, z=63^\circ$

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



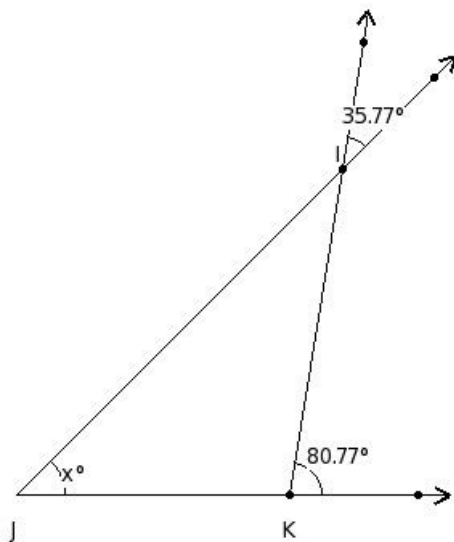
- (i) $x=60^\circ, y=75^\circ$ (ii) $x=59^\circ, y=74^\circ$ (iii) $x=62^\circ, y=77^\circ$ (iv) $x=61^\circ, y=76^\circ$ (v) $x=58^\circ, y=73^\circ$

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



- (i) $x=60.17^\circ$ (ii) $x=62.17^\circ$ (iii) $x=59.17^\circ$ (iv) $x=58.17^\circ$ (v) $x=61.17^\circ$

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



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

16. In $\triangle FGH$, if $\angle F = 61^\circ$ and $\angle G = 51^\circ$, find the measure of $\angle H$
 (i) $H=66^\circ$ (ii) $H=67^\circ$ (iii) $H=69^\circ$ (iv) $H=70^\circ$ (v) $H=68^\circ$

17. In $\triangle CDE$, if $\angle C = 30^\circ$ and $\angle D = \angle E$, find the measure of each of the equal angles of the triangle
 (i) 77° (ii) 75° (iii) 73° (iv) 76° (v) 74°

18. One angle of a triangle measures 36° and the other two angles are in the ratio 3 : 5. Find these angles.
 (i) $B=52^\circ, C=88^\circ$ (ii) $B=53^\circ, C=89^\circ$ (iii) $B=55^\circ, C=91^\circ$ (iv) $B=54^\circ, C=90^\circ$ (v) $B=56^\circ, C=92^\circ$

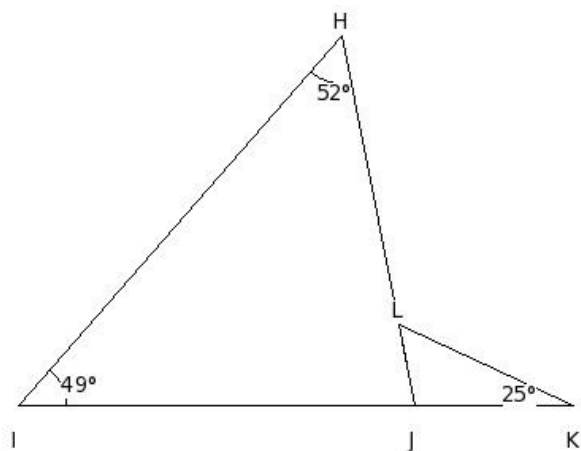
19. In a right-angled triangle, the two acute angles are in the ratio 1 : 2. Find these angles.
 (i) $A=30^\circ, C=60^\circ$ (ii) $A=29^\circ, C=59^\circ$ (iii) $A=28^\circ, C=58^\circ$ (iv) $A=32^\circ, C=62^\circ$ (v) $A=31^\circ, C=61^\circ$

20. One of the two equal angles of an isosceles triangle measures 69° . Find the measure of each angle of the triangle.
 (i) $A=69^\circ, B=69^\circ, C=42^\circ$ (ii) $A=69^\circ, B=67^\circ, C=44^\circ$ (iii) $A=67^\circ, B=71^\circ, C=42^\circ$ (iv) $A=67^\circ, B=69^\circ, C=44^\circ$
 (v) $A=71^\circ, B=69^\circ, C=40^\circ$

21. If all the three angles of a triangle are of the same measure, find the measure of each of the angles.
 (i) 60° (ii) 59° (iii) 62° (iv) 58° (v) 61°

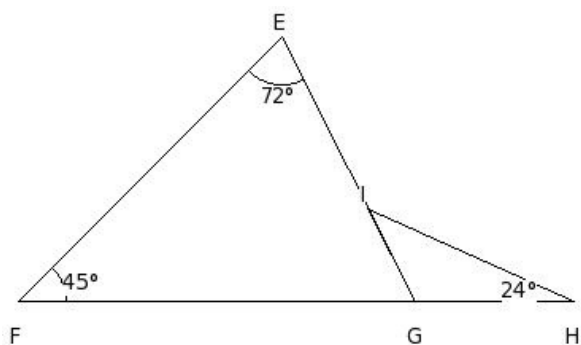
22. In a right-angled triangle if one of the acute angles is 47° , find the measure of the other acute angle.
 (i) 41° (ii) 43° (iii) 45° (iv) 44° (v) 42°

23. In the given figure, find $\angle IJH$



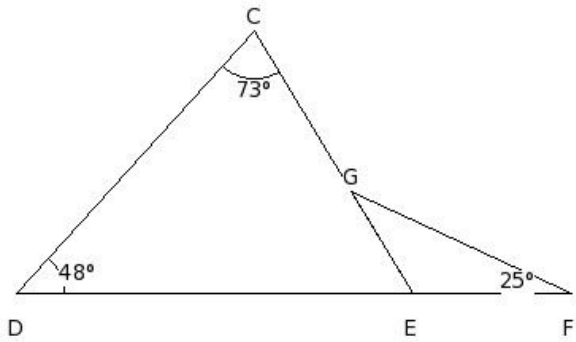
- (i) 78° (ii) 79° (iii) 77° (iv) 80° (v) 81°

24. In the given figure, find $\angle IGH$



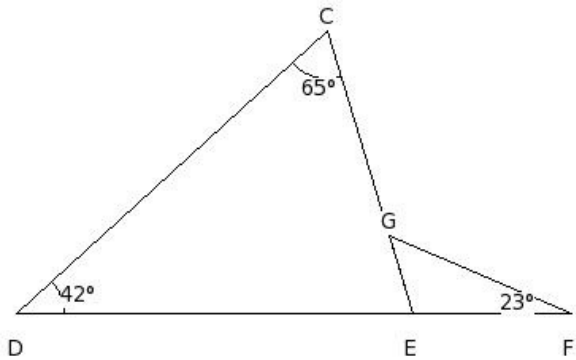
- (i) 116° (ii) 117° (iii) 119° (iv) 115° (v) 118°

25. In the given figure, find $\angle FGE$



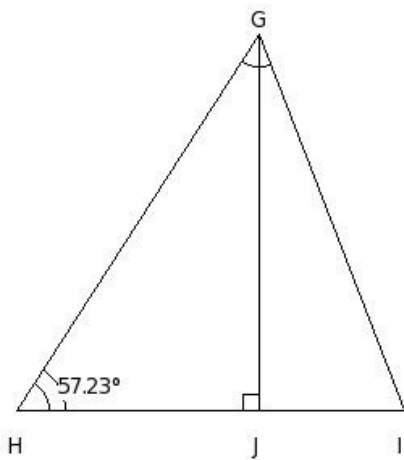
- (i) 36° (ii) 32° (iii) 35° (iv) 33° (v) 34°

26. In the given figure, find $\angle CGF$



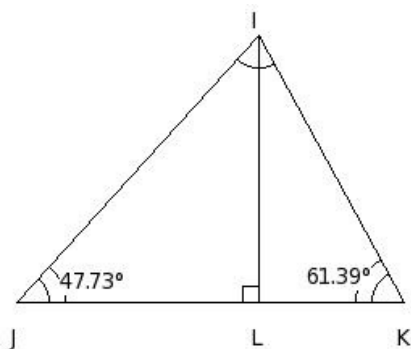
- (i) 129° (ii) 131° (iii) 132° (iv) 128° (v) 130°

27. In the given figure, if $JG \perp HI$ and $\angle GHJ = 57.23^\circ$, find $\angle JGH$



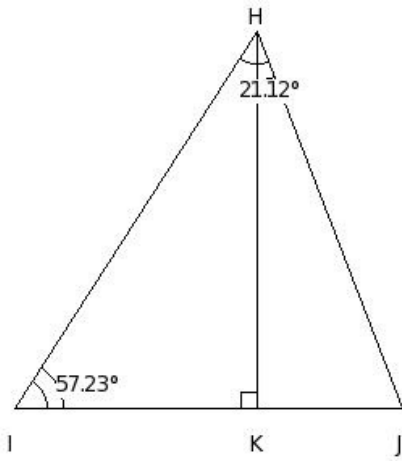
- (i) 30.77° (ii) 33.77° (iii) 32.77° (iv) 31.77° (v) 34.77°

28. In the given figure, if $LI \perp JK$ and $\angle IJL = 47.73^\circ$, find $\angle KIL$



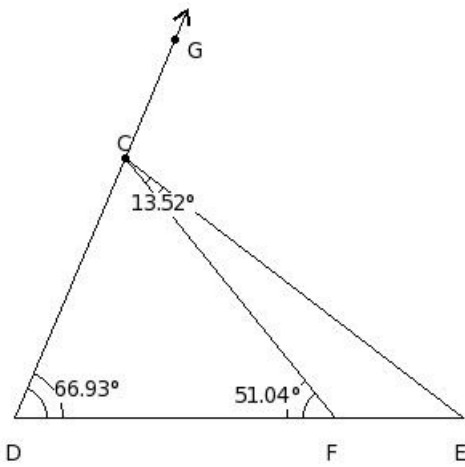
- (i) 29.61° (ii) 26.61° (iii) 27.61° (iv) 30.61° (v) 28.61°

29. In the given figure , if $KH \perp IJ$ and $\angle HIK = 57.23^\circ$, find $\angle KJH$



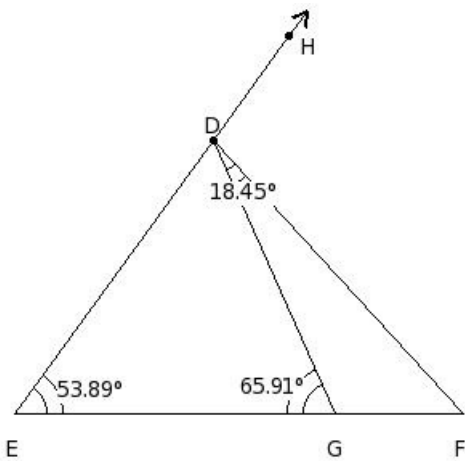
- (i) 70.88° (ii) 69.88° (iii) 68.88° (iv) 66.88° (v) 67.88°

30. In below given figure, find $\angle CFE$



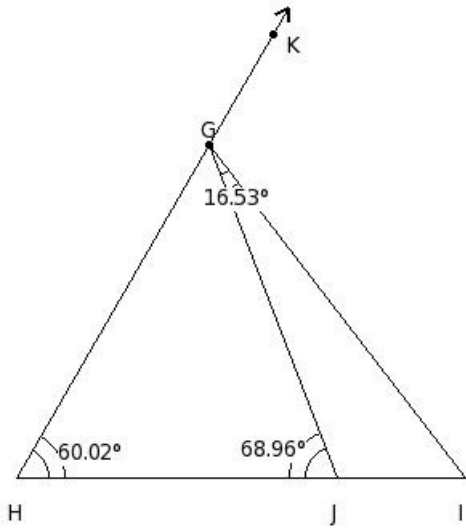
- (i) 126.96° (ii) 128.96° (iii) 127.96° (iv) 129.96° (v) 130.96°

31. In below given figure, find $\angle GDE$



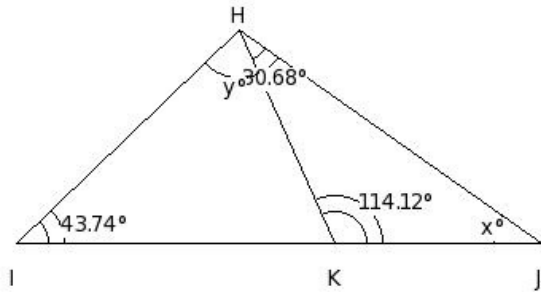
- (i) 59.20° (ii) 60.20° (iii) 58.20° (iv) 61.20° (v) 62.20°

32. In below given figure, find $\angle IGK$



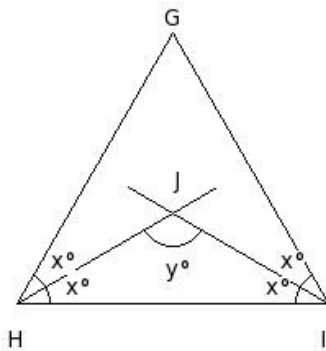
- (i) 110.45° (ii) 112.45° (iii) 113.45° (iv) 111.45° (v) 114.45°

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



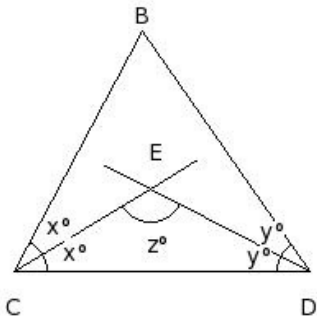
- (i) $x=35.2^\circ, y=70.38^\circ$ (ii) $x=33.2^\circ, y=68.38^\circ$ (iii) $x=36.2^\circ, y=71.38^\circ$ (iv) $x=37.2^\circ, y=72.38^\circ$
 (v) $x=34.2^\circ, y=69.38^\circ$

34. In the given figure, $\triangle GHI$ is a triangle in which $\angle G = \angle H = \angle I$. This bisectors of $\angle H$ and $\angle I$ intersect at J . Find $\angle J =$



- (i) 118° (ii) 119° (iii) 120° (iv) 121° (v) 122°

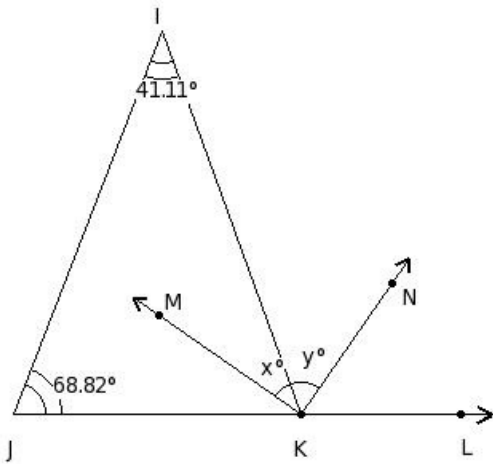
35. In the given figure, $\triangle BCD$ is a triangle in which $\angle C = 61.89^\circ$ and $\angle D = 55.06^\circ$. If 'z' is the angle between the bisector of $\angle C$ and $\angle D$, then find z.



- (i) 120.53° (ii) 122.53° (iii) 119.53° (iv) 121.53° (v) 123.53°

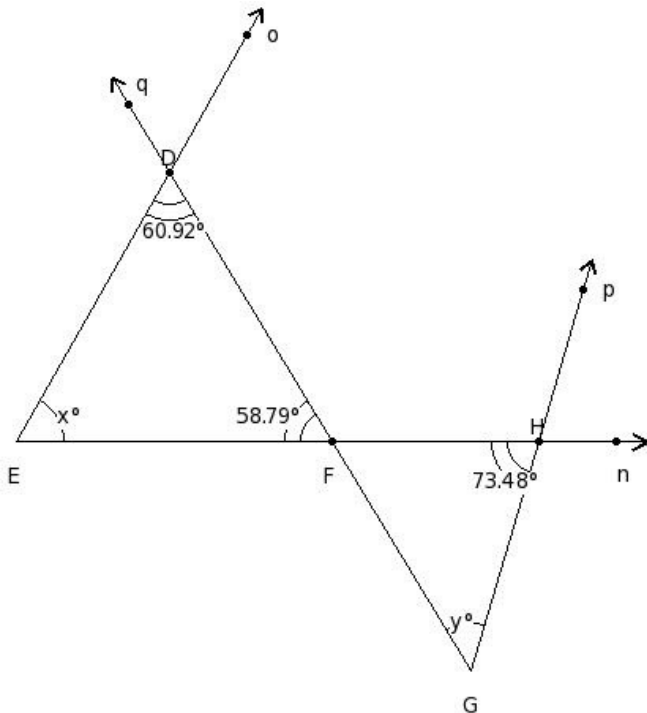
In the given figure, $\angle I = 41.11^\circ$ and $\angle J = 68.82^\circ$.

36. Side JK is produced to L, so that $\angle JKI$ and $\angle IKL$ form a linear pair. If \vec{KM} and \vec{KN} are the bisectors of $\angle JKI$ and $\angle IKL$, find x and y.



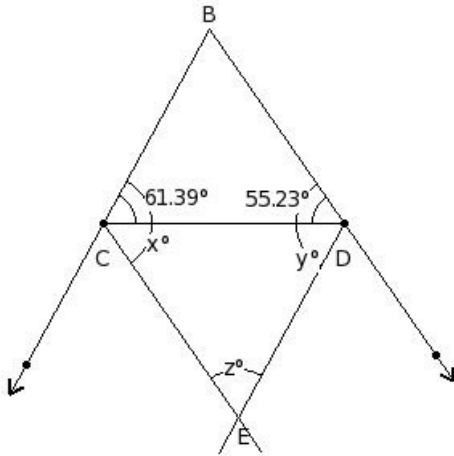
- (i) $x=35.03^\circ, y=54.97^\circ$ (ii) $x=37.03^\circ, y=56.97^\circ$ (iii) $x=36.03^\circ, y=55.97^\circ$ (iv) $x=34.03^\circ, y=53.97^\circ$
 (v) $x=33.03^\circ, y=52.97^\circ$

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



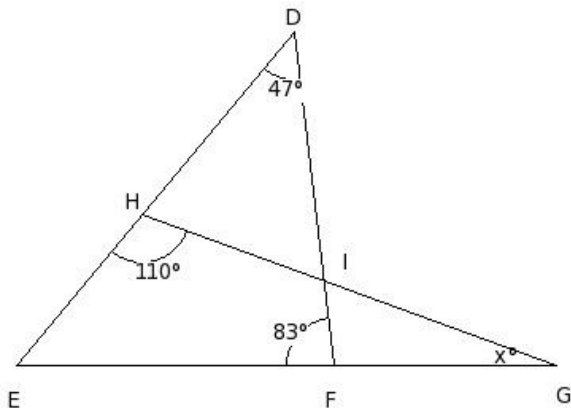
- (i) $x=59.29^\circ, y=46.73^\circ$ (ii) $x=62.29^\circ, y=49.73^\circ$ (iii) $x=60.29^\circ, y=47.73^\circ$ (iv) $x=61.29^\circ, y=48.73^\circ$
 (v) $x=58.29^\circ, y=45.73^\circ$

38. In the given figure, $\triangle BCD$ in which $\angle C = 61.39^\circ$ and $\angle D = 55.23^\circ$. BE and CD bisect each other. Find the value of z



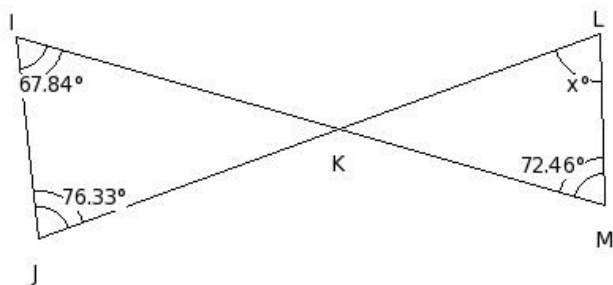
- (i) $z=65.38^\circ$ (ii) $z=64.38^\circ$ (iii) $z=63.38^\circ$ (iv) $z=62.38^\circ$ (v) $z=61.38^\circ$

39. In the given figure, calculate the value of x.



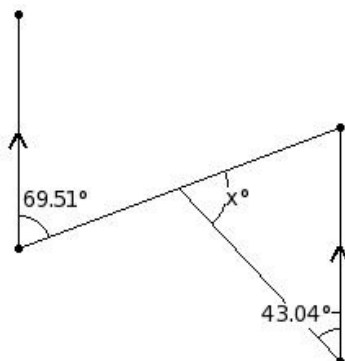
- (i) $x=21^\circ$ (ii) $x=18^\circ$ (iii) $x=22^\circ$ (iv) $x=19^\circ$ (v) $x=20^\circ$

40. In the given figure, calculate the value of x.



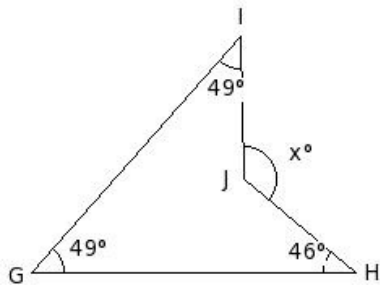
- (i) $x=70.71^\circ$ (ii) $x=71.71^\circ$ (iii) $x=72.71^\circ$ (iv) $x=69.71^\circ$ (v) $x=73.71^\circ$

41. In the given figure, calculate the value of x.



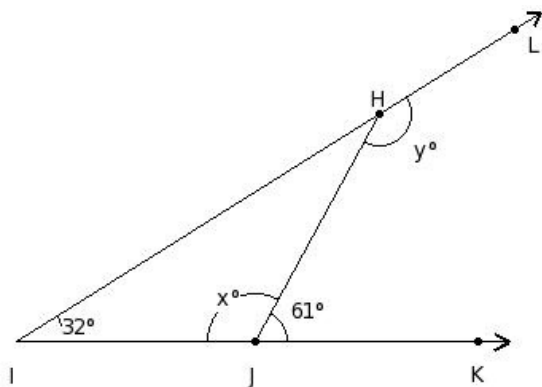
- (i) $x=68.45^\circ$ (ii) $x=67.45^\circ$ (iii) $x=69.45^\circ$ (iv) $x=66.45^\circ$ (v) $x=65.45^\circ$

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



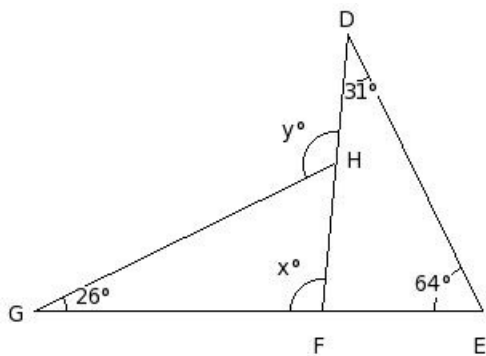
- (i) $x=143^\circ$ (ii) $x=144^\circ$ (iii) $x=146^\circ$ (iv) $x=142^\circ$ (v) $x=145^\circ$

43. Find the unknown marked angles in the following figure



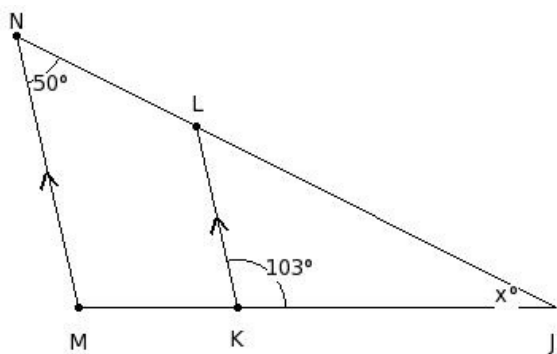
- (i) $x=121^\circ, y=153^\circ$ (ii) $x=119^\circ, y=151^\circ$ (iii) $x=117^\circ, y=149^\circ$ (iv) $x=118^\circ, y=150^\circ$ (v) $x=120^\circ, y=152^\circ$

44. Find the unknown marked angles in the following figure



- (i) $x=93^\circ, y=119^\circ$ (ii) $x=97^\circ, y=123^\circ$ (iii) $x=96^\circ, y=122^\circ$ (iv) $x=94^\circ, y=120^\circ$ (v) $x=95^\circ, y=121^\circ$

45. In the given figure, it is given that $LK \parallel NM$, $\angle LNM = 50^\circ$ and $\angle LKJ = 103^\circ$. Find the value of x .



- (i) $x=27^\circ$ (ii) $x=26^\circ$ (iii) $x=25^\circ$ (iv) $x=28^\circ$ (v) $x=29^\circ$

Assignment Key

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