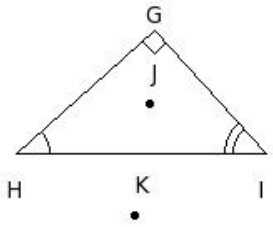
EduSahara™ Worksheet

Name : Chapter Based Worksheet

Chapter : Triangles

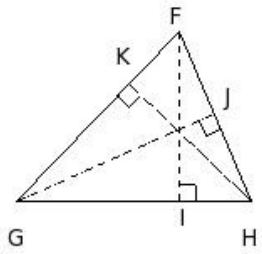
Grade : ICSE Grade VII

1. The angles of the triangle are



(i) ∠H , ∠I , ∠J (ii) ∠I , ∠J , ∠K (iii) ∠H , ∠I , ∠K (iv) ∠G , ∠H , ∠J (v) ∠G , ∠H , ∠I

2. The altitude corresponding to the side $\overline{FG}$



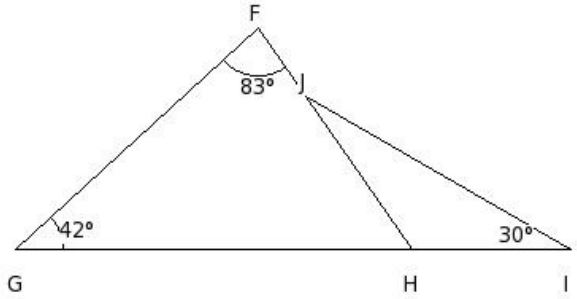
(i) $\overline{GJ}$ (ii) $\overline{FG}$ (iii) $\overline{FI}$ (iv) $\overline{HK}$ (v) $\overline{FJ}$

3. Which of the following are measures of a scalene triangle ?

(i) ∠I = 45° , ∠J = 90° , ∠K = 45° (ii) ∠I = 45.24° , ∠J = 67.38° , ∠K = 67.38°

(iii) ∠I = 60° , ∠J = 60° , ∠K = 60° (iv) ∠I = 78.46° , ∠J = 57.12° , ∠K = 44.42°

4. In the given figure, find ∠JHI



(i) 127° (ii) 123° (iii) 125° (iv) 126° (v) 124°

5. Which of the following are measures of an isosceles right angled triangle ?

(i) ∠M = 115.37° , ∠N = 35.1° , ∠O = 29.53° (ii) ∠M = 60° , ∠N = 60° , ∠O = 60°

(iii) ∠M = 44.42° , ∠N = 57.12° , ∠O = 78.46° (iv) ∠M = 45° , ∠N = 90° , ∠O = 45°

(v) ∠M = 47.16° , ∠N = 66.42° , ∠O = 66.42°

6. Which of the following are measures of an obtuse angled triangle ?

(i) FG = 13 cm , GH = 26 cm , HF = 15 cm (ii) FG = 13 cm , GH = 13 cm , HF = 18.38 cm

(iii) FG = 14 cm , GH = 10 cm , HF = 10 cm (iv) FG = 11 cm , GH = 14 cm , HF = 13 cm

(v) FG = 15 cm , GH = 13 cm , HF = 19.85 cm

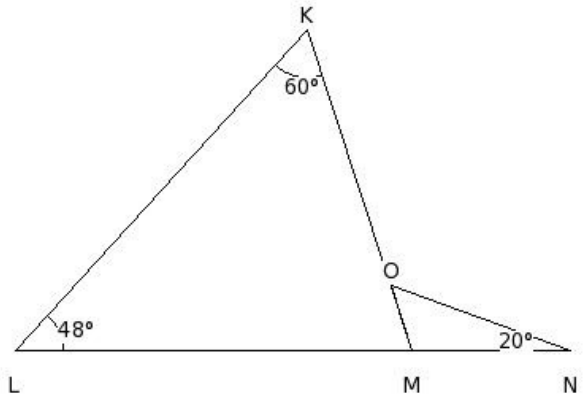
7. Which of the following are measures of an isosceles right angled triangle ?

(i) MN = 10 cm , NO = 10 cm , OM = 10 cm (ii) MN = 11 cm , NO = 23 cm , OM = 14 cm

(iii) MN = 14 cm , NO = 14 cm , OM = 19.8 cm (iv) MN = 12 cm , NO = 11 cm , OM = 14 cm

(v) MN = 12 cm , NO = 13 cm , OM = 12 cm

8. In the given figure, find ∠NOM



(i) 53° (ii) 50° (iii) 54° (iv) 52° (v) 51°

9. Find the measures of the three angles suitable to form a triangle?

(i) ∠A = 96.80° , ∠B = 59.60° , ∠C = 96.10° (ii) ∠A = 120.10° , ∠B = 110.80° , ∠C = 57.80°

(iii) ∠A = 71.79° , ∠B = 61.26° , ∠C = 46.95° (iv) ∠A = 50.40° , ∠B = 52.50° , ∠C = 59.30°

(v) ∠A = 63.40° , ∠B = 85.90° , ∠C = 56.10°

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

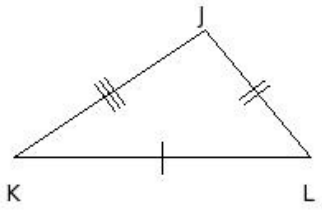
(i) A=118°,B=32°,C=30° (ii) A=120°,B=28°,C=32° (iii) A=120°,B=30°,C=30°

(iv) A=122°,B=30°,C=28° (v) A=118°,B=30°,C=32°

11. One angle of a triangle measures 60° and the other two angles are in the ratio 3 : 5. Find these angles.

(i) B=43°,C=73° (ii) B=47°,C=77° (iii) B=45°,C=75° (iv) B=46°,C=76° (v) B=44°,C=74°

12. Which of the following are measures of an obtuse angled triangle ?



(i) JK = 15 cm , KL = 13 cm , LJ = 13 cm (ii) JK = 14 cm , KL = 18 cm , LJ = 10 cm

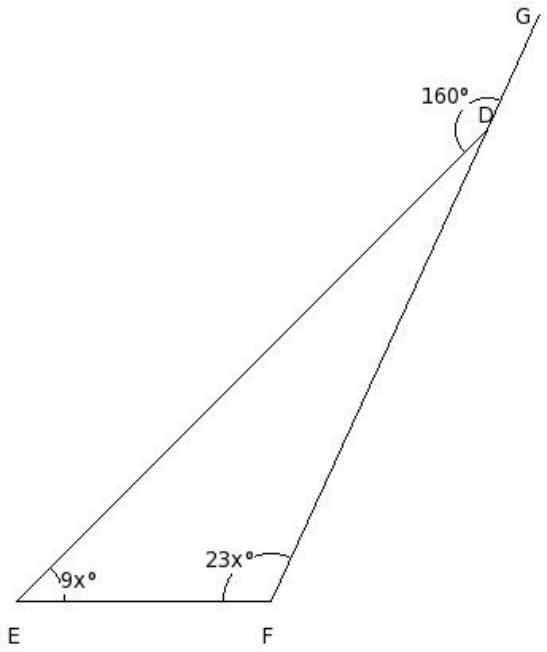
(iii) JK = 14 cm , KL = 14 cm , LJ = 19.8 cm (iv) JK = 14 cm , KL = 11 cm , LJ = 12 cm

(v) JK = 10 cm , KL = 15 cm , LJ = 18.03 cm

13. The point of intersection of the bisectors of the interior angles of a triangle is called

(i) circumcentre (ii) altitude (iii) incentre (iv) orthocentre (v) centroid

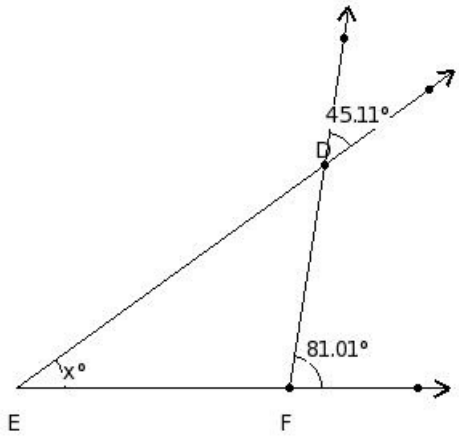
14. In the following figure, one side of a triangle has been produced. Find all the angles of the triangle.



(i) D=18°,E=45°,F=117° (ii) D=20°,E=43°,F=117° (iii) D=18°,E=47°,F=115°

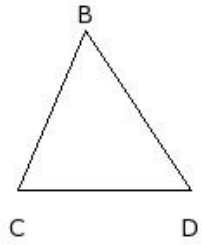
(iv) D=22°,E=45°,F=113° (v) D=20°,E=45°,F=115°

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



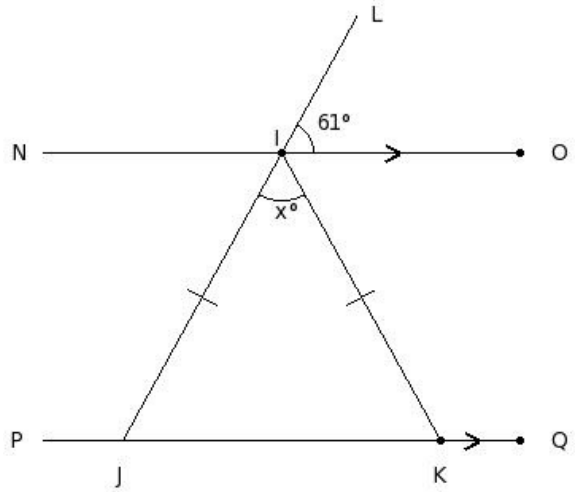
(i) x=35.9° (ii) x=34.9° (iii) x=37.9° (iv) x=33.9° (v) x=36.9°

16. The side opposite to the vertex B



(i) $\overline{BF}$ (ii) $\overline{BC}$ (iii) $\overline{DB}$ (iv) $\overline{CD}$ (v) $\overline{EC}$

17. In the given figure, NO ∥ PQ, ∠LIO = 61° and IJ = KI. Find the measure of x.



(i) x=59° (ii) x=60° (iii) x=56° (iv) x=57° (v) x=58°

18. Which of the following are measures of an acute angled triangle ?

(i) ∠I = 106.73° , ∠J = 43.16° , ∠K = 30.11° (ii) ∠I = 46.97° , ∠J = 90° , ∠K = 43.03°

(iii) ∠I = 104.47° , ∠J = 46.57° , ∠K = 28.96° (iv) ∠I = 45° , ∠J = 90° , ∠K = 45°

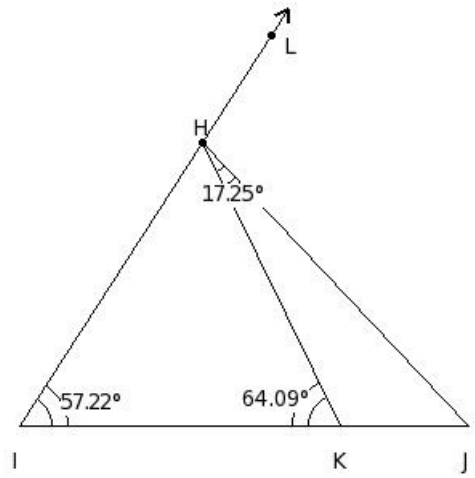
(v) ∠I = 47.01° , ∠J = 47.01° , ∠K = 85.98°

19. The angles of a triangle ABC are in the ratio 5 : 3 : 7. Find the measure of each angle of the triangle

(i) A=60°,B=34°,C=86° (ii) A=60°,B=36°,C=84° (iii) A=58°,B=38°,C=84° (iv) A=58°,B=36°,C=86°

(v) A=62°,B=36°,C=82°

20. In below given figure, find ∠HKJ



(i) 113.91° (ii) 114.91° (iii) 117.91° (iv) 115.91° (v) 116.91°

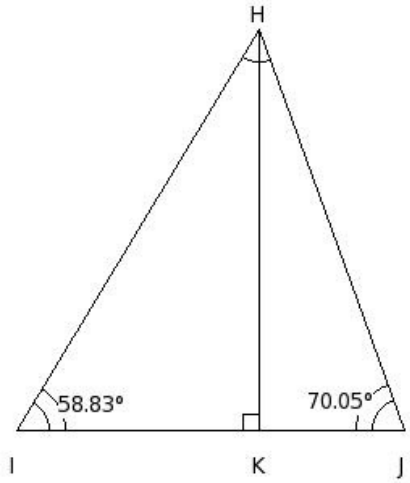
21. Which of the following are measures of an equilateral triangle ?

(i) ∠G = 45° , ∠H = 90° , ∠I = 45° (ii) ∠G = 70.46° , ∠H = 54.77° , ∠I = 54.77°

(iii) ∠G = 60° , ∠H = 60° , ∠I = 60° (iv) ∠G = 43.03° , ∠H = 90° , ∠I = 46.97°

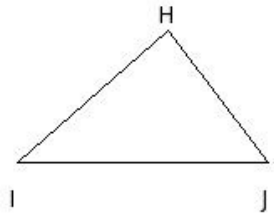
(v) ∠G = 75.31° , ∠H = 40.16° , ∠I = 64.53°

22. In the given figure , if KH ⊥ IJ and ∠HIK = 58.83°, find ∠JHK



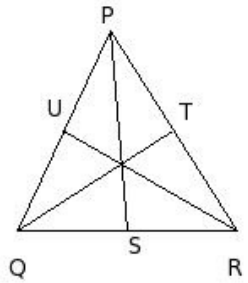
(i) 18.95° (ii) 17.95° (iii) 20.95° (iv) 19.95° (v) 21.95°

23. The vertex opposite to the side $\overline{IJ}$



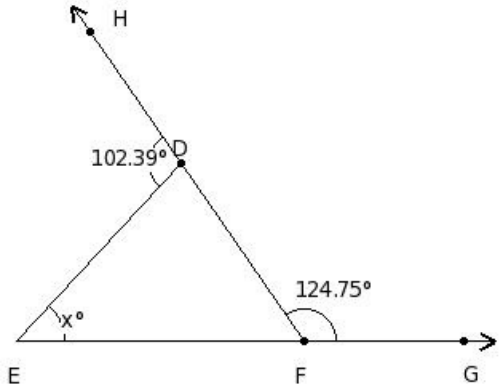
(i) L (ii) $\overline{JK}$ (iii) I (iv) H

24. The median corresponding to the side $\overline{RP}$



(i) $\overline{PT}$ (ii) $\overline{RU}$ (iii) $\overline{QT}$ (iv) $\overline{PS}$ (v) $\overline{PQ}$

25. Find the unknown marked angle in the following figure



(i) x=49.14° (ii) x=47.14° (iii) x=46.14° (iv) x=45.14° (v) x=48.14°

Assignment Key

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