EduSahara™ Worksheet

Name : Chapter Based Worksheet

Chapter : Triangles

Grade : ICSE Grade VII

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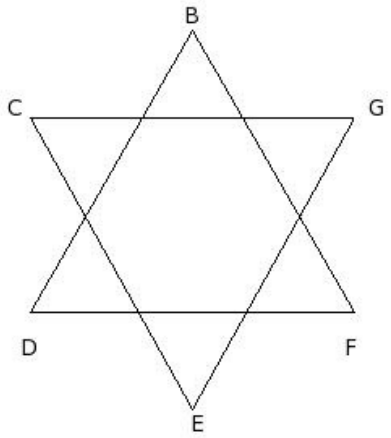
1. Which of the following are measures of an isosceles right angled triangle ?

   (i) LM = 10 cm , MN = 10 cm , NL = 10 cm (ii) LM = 12 cm , MN = 12 cm , NL = 16.97 cm

   (iii) LM = 14 cm , MN = 26 cm , NL = 15 cm (iv) LM = 13 cm , MN = 11 cm , NL = 10 cm

   (v) LM = 10 cm , MN = 12 cm , NL = 11 cm

2. In the given two equilateral triangles, find ∠B + ∠D + ∠F + ∠C + ∠E + ∠G .

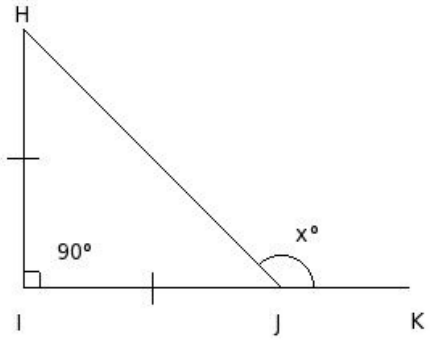


   (i) 359° (ii) 358° (iii) 360° (iv) 361° (v) 362°

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

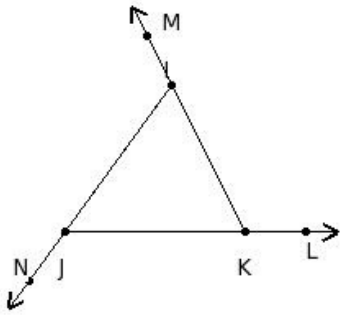
   (i) B=38°,C=92° (ii) B=34°,C=88° (iii) B=36°,C=90° (iv) B=35°,C=89° (v) B=37°,C=91°

4. Find the unknown angle in the following figure



   (i) x=135° (ii) x=137° (iii) x=136° (iv) x=133° (v) x=134°

5. The exterior angles of the triangle are



(i) ∠KLI , ∠LIJ , ∠MJL (ii) ∠MLJ , ∠NJK , ∠OKL (iii) ∠LMJ , ∠MJK , ∠NKM (iv) ∠LKI , ∠MIJ , ∠NJK

(v) ∠NMK , ∠OKL , ∠PLM

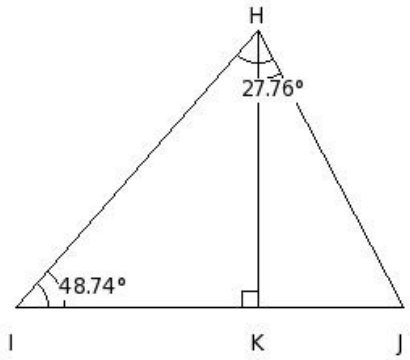
6. Which of the following are measures of an equilateral triangle ?

(i) ∠P = 60° , ∠Q = 60° , ∠R = 60° (ii) ∠P = 59.41° , ∠Q = 52.62° , ∠R = 67.97°

(iii) ∠P = 65.16° , ∠Q = 57.42° , ∠R = 57.42° (iv) ∠P = 45° , ∠Q = 90° , ∠R = 45°

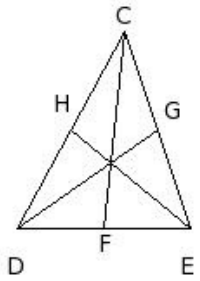
(v) ∠P = 43.03° , ∠Q = 90° , ∠R = 46.97°

7. In the given figure , if KH ⊥ IJ and ∠HIK = 48.74°, find ∠KJH



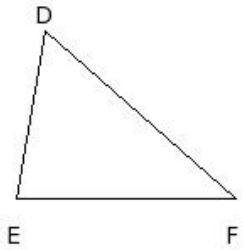
(i) 62.24° (ii) 63.24° (iii) 61.24° (iv) 64.24° (v) 60.24°

8. The median corresponding to the side $\overline{EC}$



(i) $\overline{CG}$ (ii) $\overline{CF}$ (iii) $\overline{EH}$ (iv) $\overline{DG}$ (v) $\overline{CD}$

9. The vertex opposite to the side $\overline{FD}$



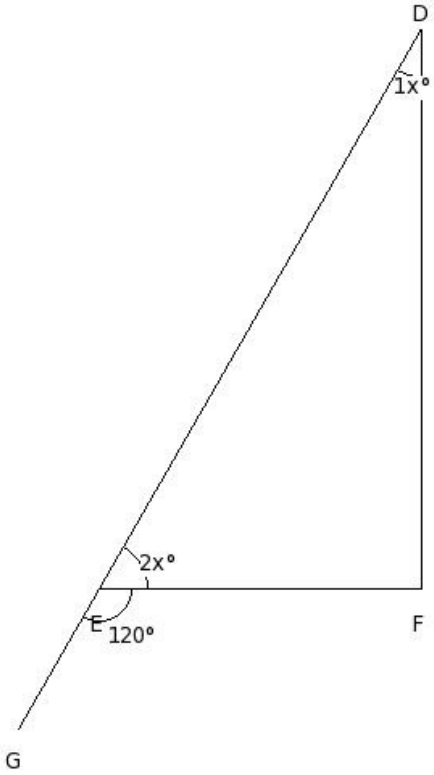
(i) H (ii) $\overline{FG}$ (iii) E (iv) D

10. One of the two equal angles of an isosceles triangle measures 38°. Find the measure of each angle of the triangle.

(i) A=40°,B=38°,C=102° (ii) A=38°,B=36°,C=106° (iii) A=36°,B=40°,C=104°

(iv) A=36°,B=38°,C=106° (v) A=38°,B=38°,C=104°

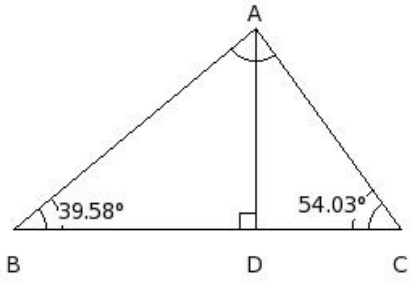
11. In the following figure, one side of a triangle has been produced. Find all the angles of the triangle



(i) D=28°,E=62°,F=90° (ii) D=32°,E=60°,F=88° (iii) D=30°,E=60°,F=90° (iv) D=28°,E=60°,F=92°

(v) D=30°,E=58°,F=92°

12. In the given figure , if DA ⊥ BC and ∠ABD = 39.58°, find ∠CAD



(i) 37.97° (ii) 33.97° (iii) 34.97° (iv) 36.97° (v) 35.97°

13. The point of intersection of the bisectors of the interior angle and the two exterior opposite angles of a triangle is called

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

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

(i) X=43°,Y=90°,Z=47° (ii) X=43°,Y=92°,Z=45° (iii) X=45°,Y=90°,Z=45° (iv) X=45°,Y=88°,Z=47°

(v) X=47°,Y=90°,Z=43°

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

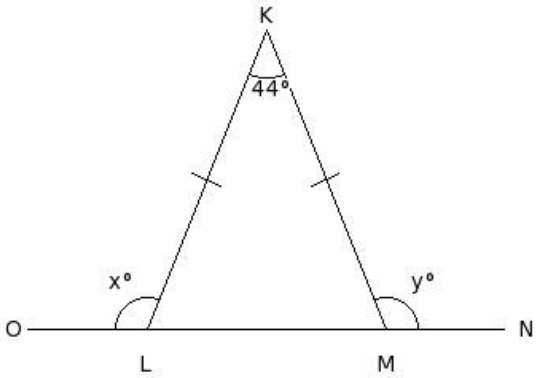
(i) 47° (ii) 46° (iii) 44° (iv) 43° (v) 45°

16. Which of the following may lie outside or on the triangle?

a) orthocentre
b) circumcentre
c) centroid
d) incentre
e) excentre

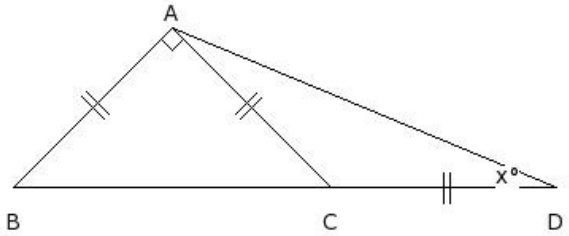
(i) {c,d,e} (ii) {c,a,b} (iii) {d,b} (iv) {a,b,e} (v) {c,a}

17. Find the unknown marked angles in the following figure



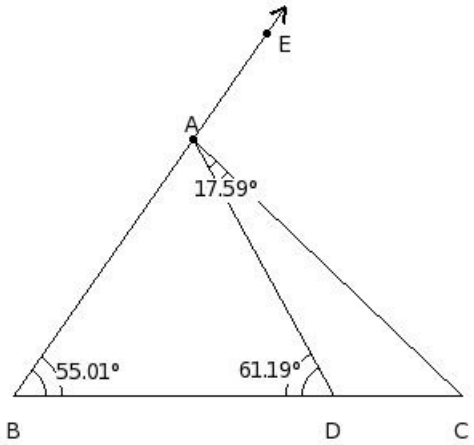
(i) x=114°,y=114° (ii) x=111°,y=111° (iii) x=113°,y=113° (iv) x=112°,y=112° (v) x=110°,y=110°

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



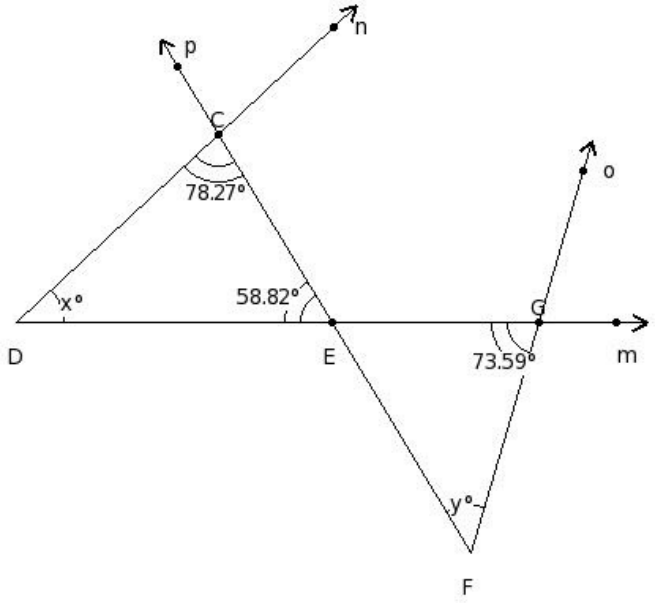
(i) x=22.5° (ii) x=21.5° (iii) x=23.5° (iv) x=20.5° (v) x=24.5°

19. In below given figure, find ∠ADC



(i) 117.81° (ii) 118.81° (iii) 116.81° (iv) 119.81° (v) 120.81°

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



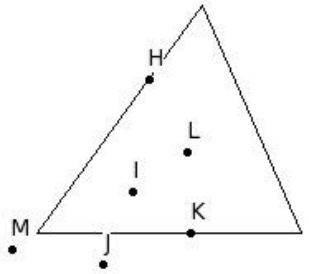
(i) x=41.91°,y=46.59° (ii) x=43.91°,y=48.59° (iii) x=42.91°,y=47.59° (iv) x=40.91°,y=45.59°

(v) x=44.91°,y=49.59°

21. The point of intersection of the altitudes of a triangle is called

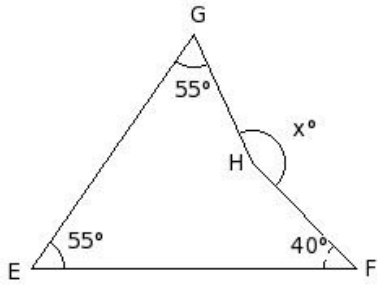
(i) incentre (ii) circumcentre (iii) centroid (iv) altitude (v) orthocentre

22. Identify the points that are on the triangle



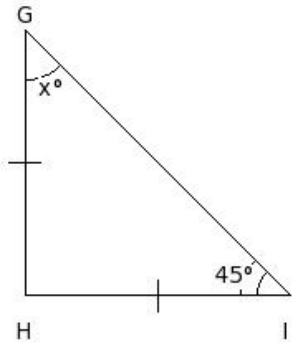
(i) {H,K} (ii) {I,L} (iii) {M,K} (iv) {J,M} (v) {L,K}

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



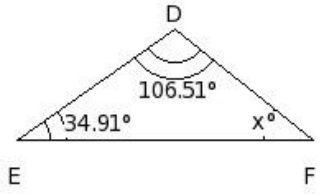
(i) x=150° (ii) x=148° (iii) x=152° (iv) x=151° (v) x=149°

24. Find the unknown angle in the following figure



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

25. Find the unknown angle from the following figure



(i) x=38.58° (ii) x=37.58° (iii) x=39.58° (iv) x=36.58° (v) x=40.58°

Assignment Key

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

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