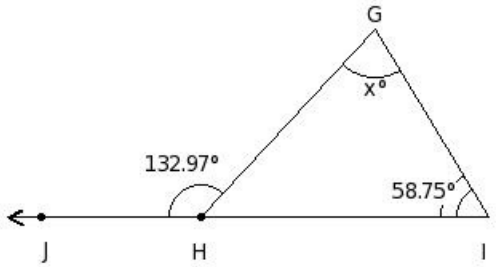
EduSahara™ Worksheet

Name : Chapter Based Worksheet

Chapter : Triangles

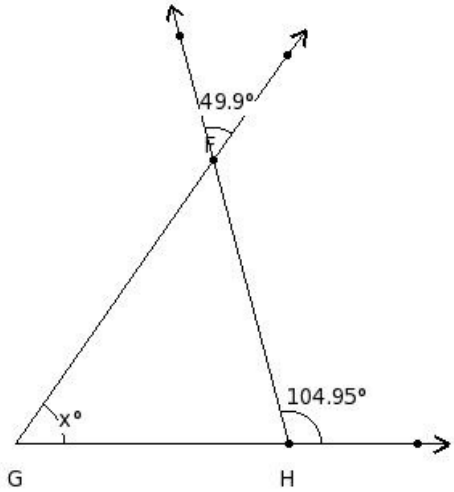
Grade : ICSE Grade IX

1. Calculate the value of x in the following figure



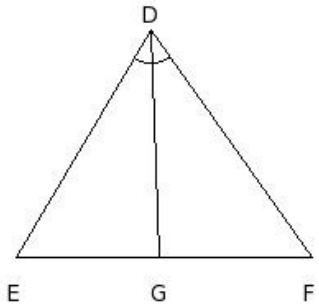
(i) x=72.22° (ii) x=73.22° (iii) x=76.22° (iv) x=75.22° (v) x=74.22°

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



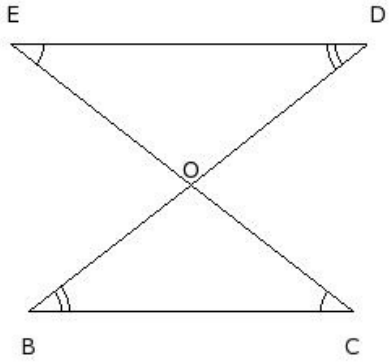
(i) x=56.05° (ii) x=55.05° (iii) x=54.05° (iv) x=53.05° (v) x=57.05°

3. With the data in the figure, △DGE ≅ △DGF by which property?



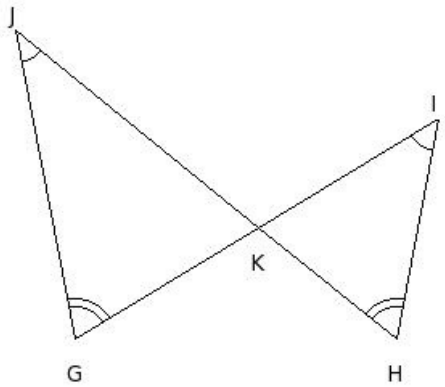
(i) SAS Congruency (ii) ASA Congruency (iii) not congruent (iv) RHS Congruency (v) SSS Congruency

4. With the data in the figure, $\triangle BOC \cong \triangle DOE$ by which property?



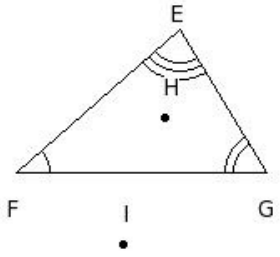
(i) SAS Congruency (ii) not congruent (iii) SSS Congruency (iv) RHS Congruency (v) ASA Congruency

5. With the data in the figure, $\triangle GKJ \cong \triangle HKI$ by which property?



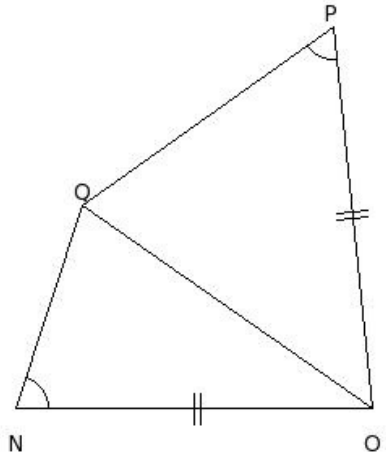
(i) SAS Congruency (ii) SSS Congruency (iii) not congruent (iv) ASA Congruency (v) RHS Congruency

6. The sides of the triangle are



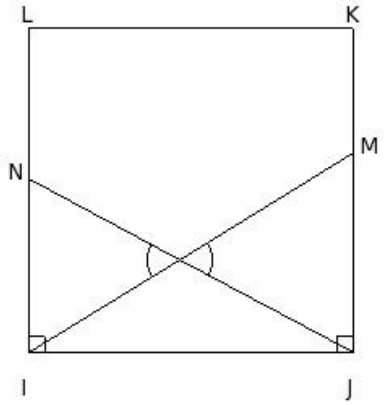
(i) $\overline{GH}, \overline{HF}, \overline{FG}$ (ii) $\overline{FH}, \overline{HE}, \overline{EF}$ (iii) $\overline{FG}, \overline{GE}, \overline{EF}$ (iv) $\overline{GI}, \overline{IF}, \overline{FG}$ (v) $\overline{HI}, \overline{IG}, \overline{GH}$

7. With the data in the given figure, $\triangle NOQ \cong \triangle POQ$ by which property?



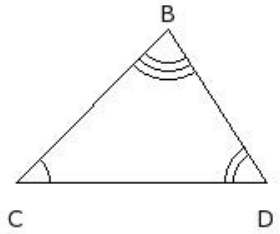
(i) not congruent (ii) RHS Congruency (iii) SSS Congruency (iv) ASA Congruency (v) SAS Congruency

8. With the data in the figure, △IJM ≅ △JIN by which property?



(i) SSS Congruency (ii) SAS Congruency (iii) not congruent (iv) ASA Congruency (v) RHS Congruency

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

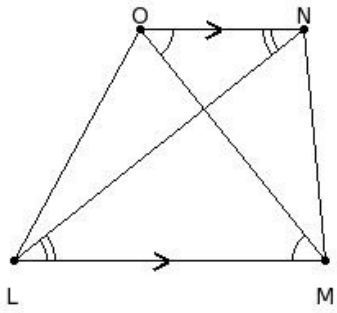


(i) ∠B = 76.87° , ∠C = 45.57° , ∠D = 57.56° (ii) ∠B = 60° , ∠C = 60° , ∠D = 60°

(iii) ∠B = 88.86° , ∠C = 45.57° , ∠D = 45.57° (iv) ∠B = 45° , ∠C = 90° , ∠D = 45°

(v) ∠B = 50.06° , ∠C = 64.97° , ∠D = 64.97°

10. With the data in the given figure, △LMO ≅ △MLN by which property?



(i) SAS Congruency (ii) RHS Congruency (iii) ASA Congruency (iv) SSS Congruency (v) not congruent

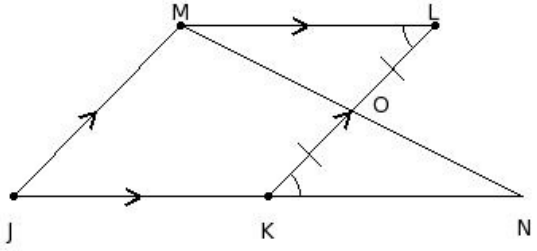
11. Which of the following are measures of a right angled triangle ?

(i) GH = 10 cm , HI = 13 cm , IG = 13 cm (ii) GH = 11 cm , HI = 13 cm , IG = 12 cm

(iii) GH = 14 cm , HI = 14 cm , IG = 14 cm (iv) GH = 12 cm , HI = 10 cm , IG = 15.62 cm

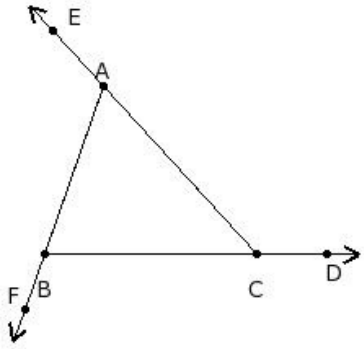
(v) GH = 10 cm , HI = 20 cm , IG = 14 cm

12. With the given data in the figure, △MLO ≅ △NKO by which property?



(i) ASA Congruency (ii) not congruent (iii) SSS Congruency (iv) SAS Congruency (v) RHS Congruency

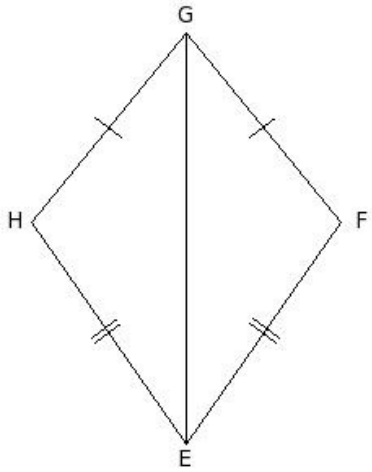
13. The exterior angles of the triangle are



(i) ∠FEC , ∠GCD , ∠HDE (ii) ∠DEB , ∠EBC , ∠FCE (iii) ∠CDA , ∠DAB , ∠EBD (iv) ∠DCA , ∠EAB , ∠FBC

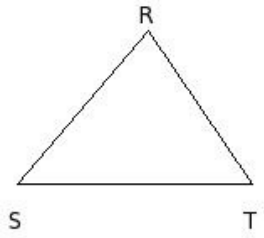
(v) ∠EDB , ∠FBC , ∠GCD

14. With the data in the given figure, △EHG ≅ △EFG by which property?



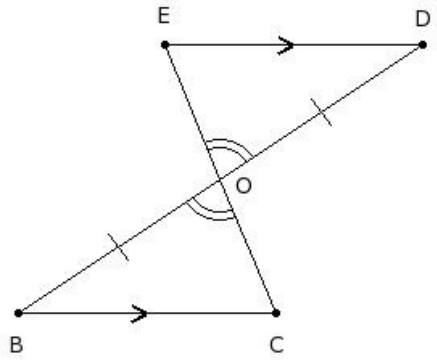
(i) ASA Congruency (ii) SSS Congruency (iii) RHS Congruency (iv) SAS Congruency (v) not congruent

15. The vertex opposite to the side $\overline{TR}$



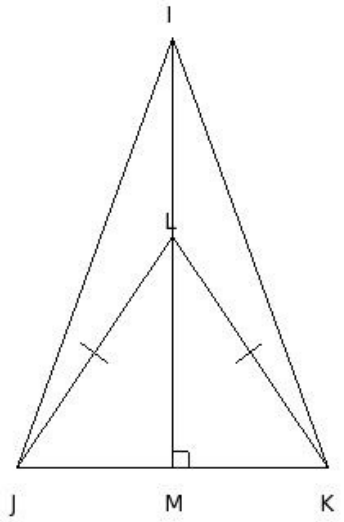
(i) S (ii) R (iii) V (iv) $\overline{TU}$

16. With the data in the given figure, △OED ≅ △OCB by which property?



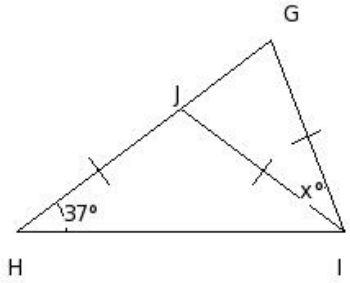
(i) not congruent (ii) SAS Congruency (iii) ASA Congruency (iv) RHS Congruency (v) SSS Congruency

17. In the given figure, △LJK is an isosceles triangle. IM ⊥ JK passing through L. △ILJ ≅ △ILK by which property?



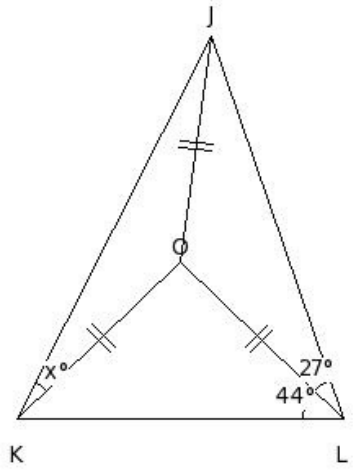
(i) RHS Congruency (ii) SAS Congruency (iii) SSS Congruency (iv) not congruent (v) ASA Congruency

18. In the given figure, if IG = IJ = JH, find the value of x



(i) x=31° (ii) x=34° (iii) x=32° (iv) x=33° (v) x=30°

19. Find the value of x in the given figure.



(i) x=17° (ii) x=21° (iii) x=19° (iv) x=18° (v) x=20°

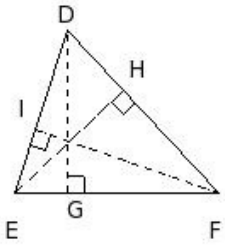
20. The point of intersection of the perpendicular bisectors of the sides of a triangle is called

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

21. Two angles of a triangle measure 66° and 51° respectively. Find the measure of the third angle of the triangle

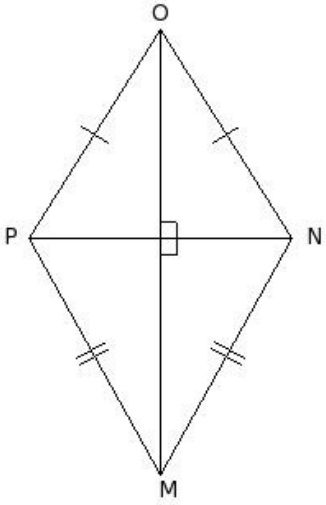
(i) 62° (ii) 64° (iii) 63° (iv) 65° (v) 61°

22. The altitude corresponding to the side $\overline{DE}$



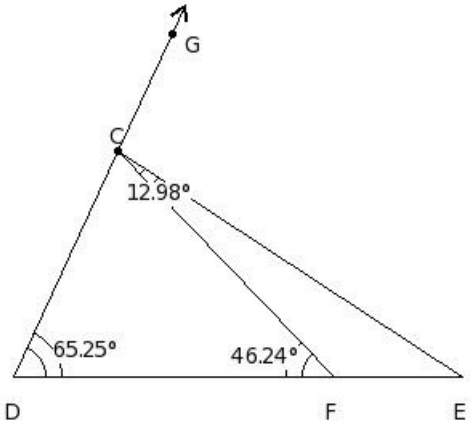
(i) $\overline{EH}$ (ii) $\overline{FI}$ (iii) $\overline{DH}$ (iv) $\overline{DG}$ (v) $\overline{DE}$

23. With the data in the given figure, $\triangle MNP \cong \triangle ONP$ by which property?



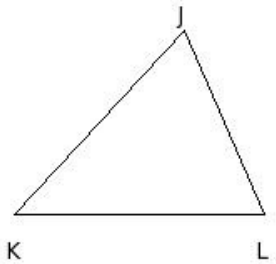
(i) not congruent (ii) RHS Congruency (iii) SAS Congruency (iv) ASA Congruency (v) SSS Congruency

24. In below given figure, find ∠ECG



(i) 97.51° (ii) 96.51° (iii) 100.51° (iv) 98.51° (v) 99.51°

25. The vertex opposite to the side $\overline{KL}$



(i) N (ii) K (iii) J (iv) $\overline{LM}$

Assignment Key

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