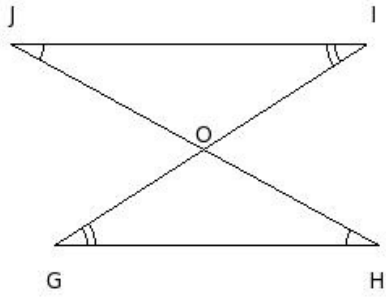
EduSahara™ Worksheet

Name : Chapter Based Worksheet

Chapter : Triangles

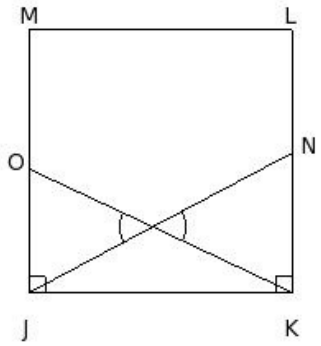
Grade : CBSE Grade IX

1. With the data in the figure, △GOH ≅ △IOJ by which property?



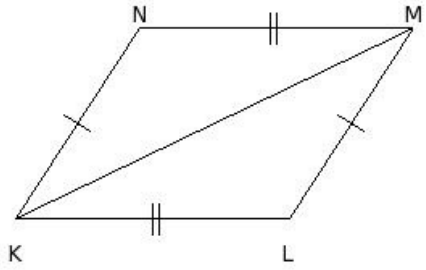
(i) RHS Congruency (ii) not congruent (iii) ASA Congruency (iv) SAS Congruency (v) SSS Congruency

2. With the data in the figure, △JKN ≅ △KJO by which property?



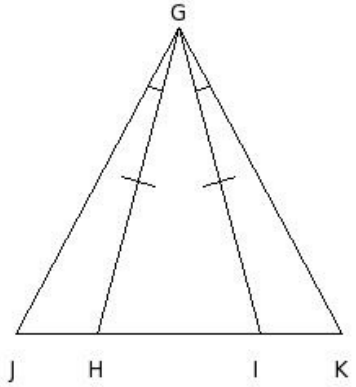
(i) not congruent (ii) RHS Congruency (iii) SAS Congruency (iv) ASA Congruency (v) SSS Congruency

3. In the given figure, which of the following is true?



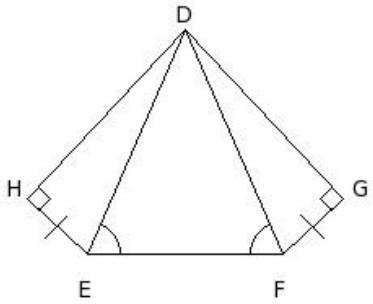
(i) △KMN ≅ △MKL (ii) △KMN ≅ △KLM (iii) △KMN ≅ △KML (iv) △KNM ≅ △LMK (v) △KNM ≅ △KLM

4. With the data in the given figure, △GHJ ≅ △GIK by which property?



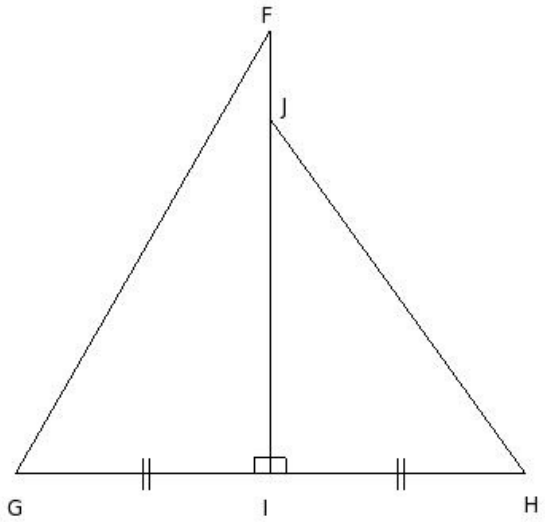
(i) SAS Congruency (ii) SSS Congruency (iii) ASA Congruency (iv) not congruent (v) RHS Congruency

5. With the data in the given figure, △DEH ≅ △DFG by which property?



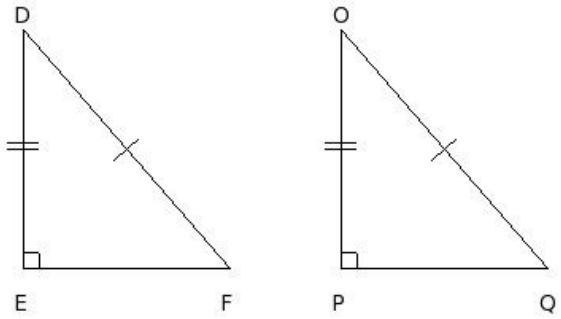
(i) SAS Congruency (ii) SSS Congruency (iii) RHS Congruency (iv) ASA Congruency (v) not congruent

6. With the data in the figure, △FGI ≅ △JHI by which property?



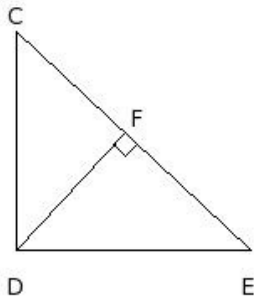
(i) not congruent (ii) ASA Congruency (iii) RHS Congruency (iv) SSS Congruency (v) SAS Congruency

7. Identify the property by which the two given triangles are congruent



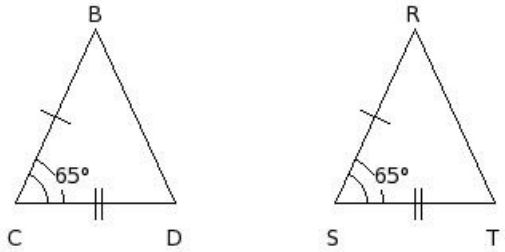
(i) ASA Congruency (ii) SAS Congruency (iii) SSS Congruency (iv) RHS Congruency

8. With the data in the figure, △CDF ≅ △EDF by which property?



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

9. Identify the property by which the two given triangles are congruent



(i) ASA Congruency (ii) RHS Congruency (iii) SSS Congruency (iv) SAS Congruency

10. In the given figure, points H , I and J are the mid-points of sides FG, GE and EF of △EFG. Which of the following are true?

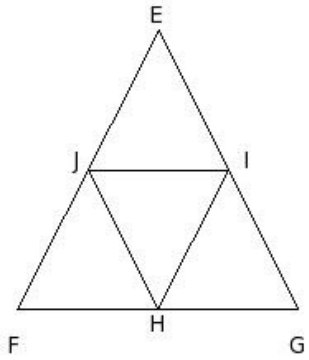
a) Area of trapezium FGIJ is thrice the area of △EJI

b) Area of $\triangle EFG = \frac{1}{3}$ area of $\triangle HIJ$

c) Area of △EFG = 4 times area of △HIJ

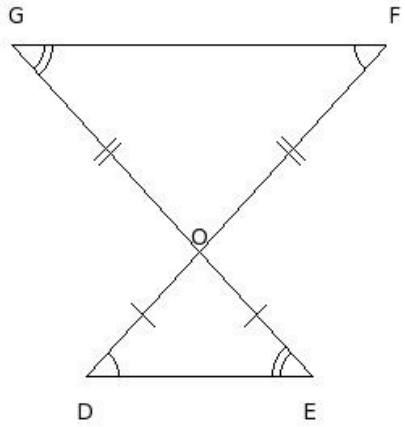
d) Area of trapezium FGIJ is $\frac{1}{4}$ the area of $\triangle EFG$

e) All four small triangles have equal areas



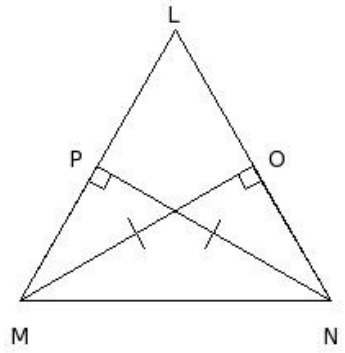
(i) {a,c,e} (ii) {d,c} (iii) {b,a} (iv) {b,d,e} (v) {b,a,c}

11. With the data in the figure, △DOE ≅ △FOG by which property?



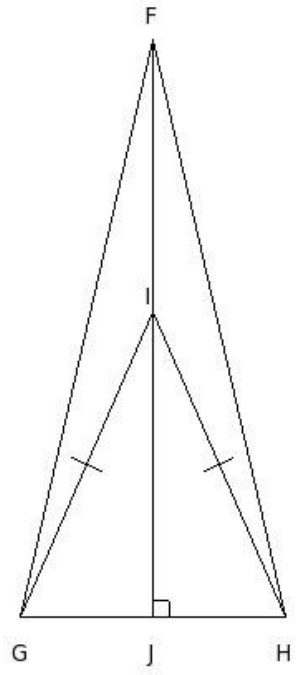
(i) SSS Congruency (ii) SAS Congruency (iii) ASA Congruency (iv) RHS Congruency (v) not congruent

12. With the data in the given figure, △MON ≅ △NPM by which property?



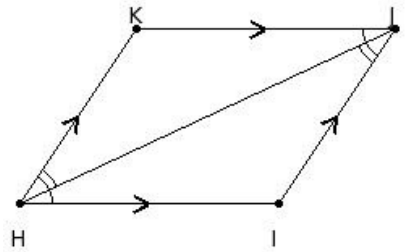
(i) ASA Congruency (ii) SSS Congruency (iii) RHS Congruency (iv) SAS Congruency (v) not congruent

13. In the given figure, △IGH is an isosceles triangle. FJ ⊥ GH passing through I. △FIG ≅ △FIH by which property?



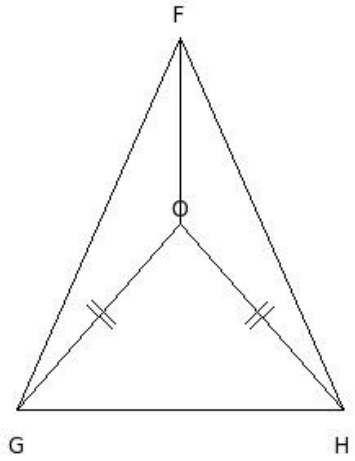
(i) ASA Congruency (ii) RHS Congruency (iii) not congruent (iv) SSS Congruency (v) SAS Congruency

14. With the given data in the figure, △HIJ ≅ △JKH by which property?



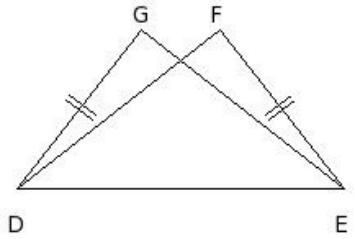
(i) ASA Congruency (ii) not congruent (iii) RHS Congruency (iv) SSS Congruency (v) SAS Congruency

15. With the data in the given figure, △FOG ≅ △FOH by which property?



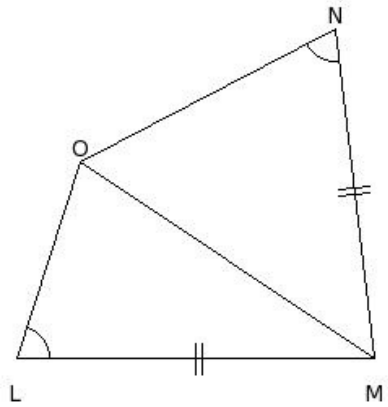
(i) RHS Congruency (ii) SAS Congruency (iii) SSS Congruency (iv) not congruent (v) ASA Congruency

16. With the data in the figure, △DGE ≅ △EFD by which property?



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

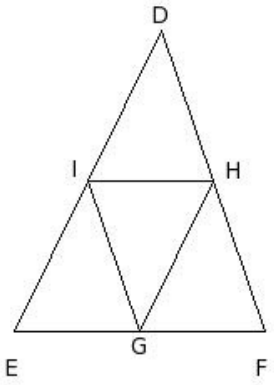
17. With the data in the given figure, △LMO ≅ △NMO by which property?



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

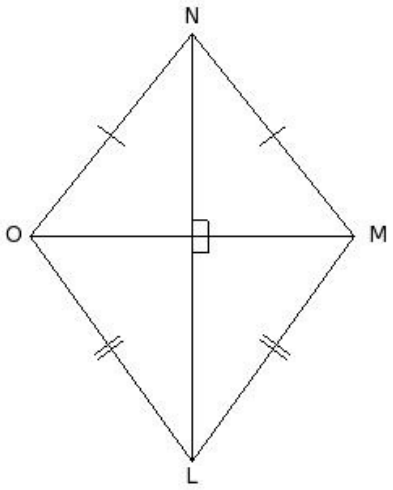
18. In the given figure, points G , H and I are the mid-points of sides EF, FD and DE of △DEF. Which of the following are true?

a) △IEG ≅ △GHI
b) △IEG ≅ △DIH
c) △DIH ≅ △GIH
d) △DIH ≅ △GHI
e) △DIH ≅ △HGF



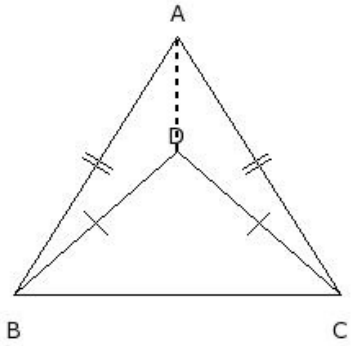
(i) {c,b} (ii) {c,e,a} (iii) {c,a} (iv) {c,d} (v) {a,b,d,e}

19. With the data in the given figure, △LMO ≅ △NMO by which property?



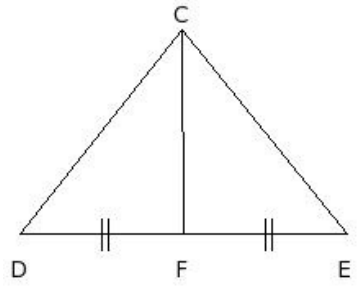
(i) ASA Congruency (ii) not congruent (iii) RHS Congruency (iv) SSS Congruency (v) SAS Congruency

20. With the data in the given figure, △ADB ≅ △ADC by which property?



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

21. With the data in the figure, △CFD ≅ △CFE by which property?



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

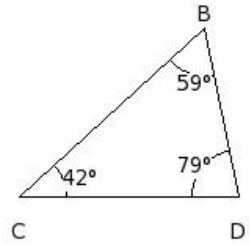
22. Which of the following are true?

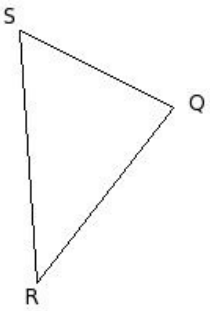
a) Area of the union of two polygonal region is the sum of the individual area.
b) A polygonal region can be divided into a finite number of triangles in a unique way.
c) Area of the union of two polygonal region is not equal to the sum of the individual area.
d) Area of a convex polygonal region is equal to the sum of the areas of all triangles formed by joining the vertices of the polygon with an interior point.

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

23. In the given figure, △BCD ≅ △SRQ. Which of the following are true?

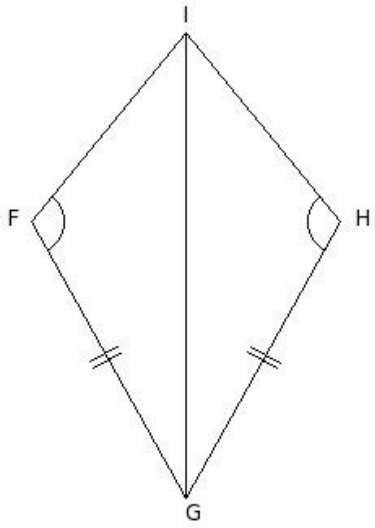
a) ∠R = 42°
b) ∠S = 42°
c) ∠Q = 79°
d) ∠R = 79°
e) ∠S = 59°
f) ∠Q = 59°





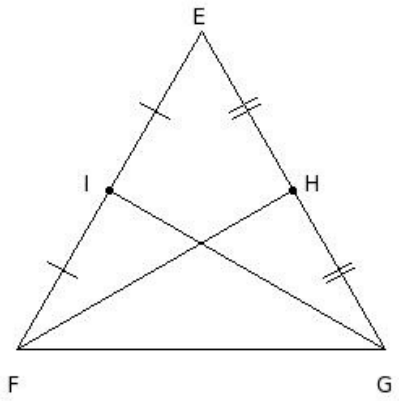
(i) {d,a,c} (ii) {b,a} (iii) {f,b,e} (iv) {a,c,e} (v) {d,c}

24. With the data in the figure, △FIG ≅ △HIG by which property?



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

25. With the data in the figure, △FGI ≅ △GFH by which property?



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

Assignment Key

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