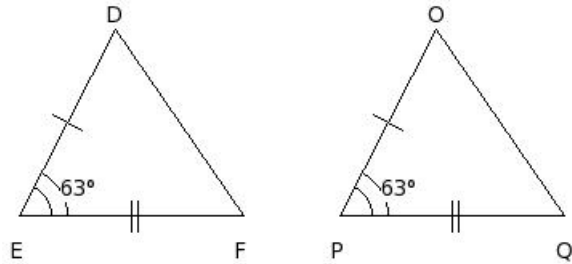


**EduSahara™ Learning Center Assignment**

Grade : Class VII, SSC  
Chapter : Congruency of Triangles  
Name : Congruency of Triangles  
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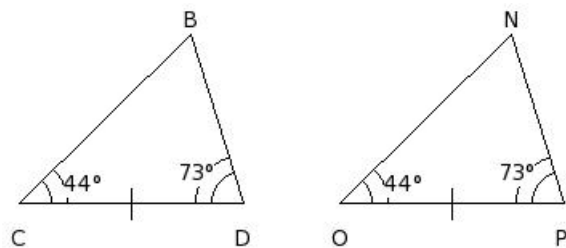
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1. Identify the property by which the two given triangles are congruent



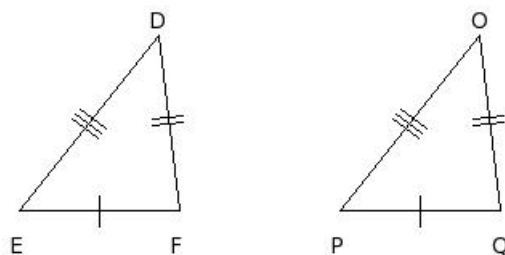
- (i) SAS Congruency
  - (ii) SSS Congruency
  - (iii) ASA Congruency
  - (iv) RHS Congruency
- 

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



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

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

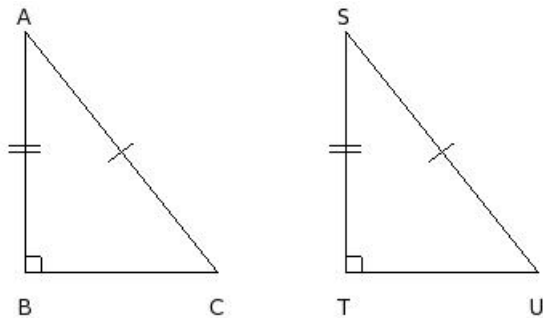


- (i) SAS Congruency
- (ii) RHS Congruency

(iii) ASA Congruency

(iv) SSS Congruency

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



(i) SSS Congruency

(ii) ASA Congruency

(iii) RHS Congruency

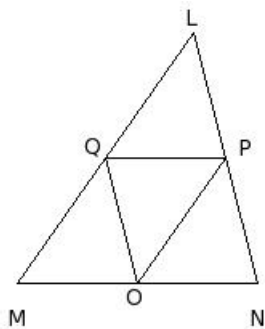
(iv) SAS Congruency

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

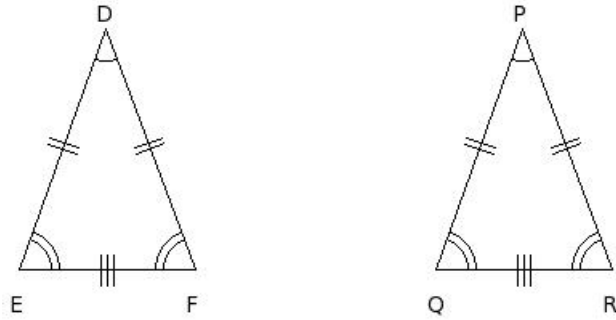
6. In the given figure, points O , P and Q are the mid-points of sides MN, NL and LM of  $\triangle LMN$ . Which of the following are true?

- a)  $\triangle QMO \cong \triangle LQP$
- b)  $\triangle LQP \cong \triangle OPQ$
- c)  $\triangle LQP \cong \triangle PON$
- d)  $\triangle LQP \cong \triangle OQP$
- e)  $\triangle QMO \cong \triangle OPQ$



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

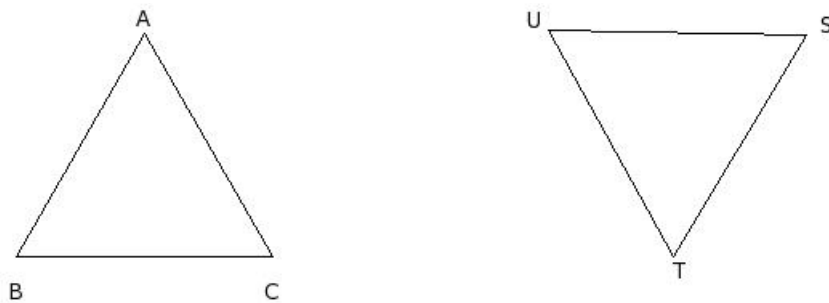
7. In the given figure, which of the following is true ?



- (i)  $\triangle DEF \cong \triangle RPQ$
- (ii)  $\triangle DEF \cong \triangle RQP$
- (iii)  $\triangle DEF \cong \triangle QRP$
- (iv)  $\triangle DEF \cong \triangle PQR$
- (v)  $\triangle EFD \cong \triangle PQR$

8. In the given figure,  $\triangle ABC \cong \triangle UTS$ . Which of the following are true ?

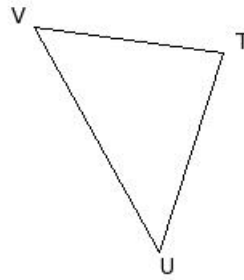
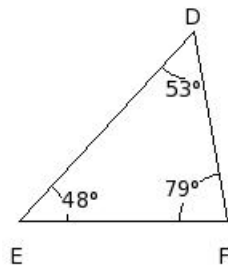
- a)  $\angle C = \angle S$
- b)  $\angle A = \angle S$
- c)  $BC = TS$
- d)  $BC = UT$
- e)  $\angle B = \angle T$



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

9. In the given figure,  $\triangle DEF \cong \triangle VUT$ . Which of the following are true ?

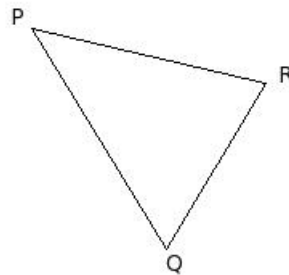
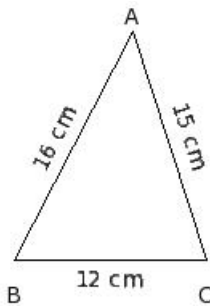
- a)  $\angle U = 79^\circ$
- b)  $\angle V = 48^\circ$
- c)  $\angle V = 53^\circ$
- d)  $\angle T = 79^\circ$
- e)  $\angle T = 53^\circ$
- f)  $\angle U = 48^\circ$



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

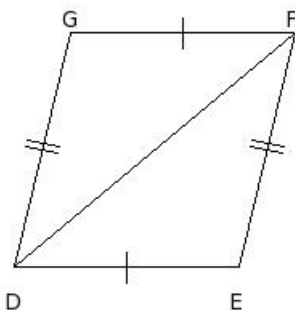
10. In the given figure,  $\triangle ABC \cong \triangle PQR$ . Which of the following are true ?

- a)  $RP = 15$  cm
- b)  $RP = 16$  cm
- c)  $PQ = 16$  cm
- d)  $QR = 16$  cm
- e)  $QR = 12$  cm
- f)  $PQ = 12$  cm



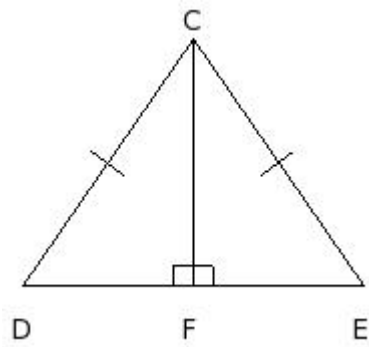
- (i) {d,a,c} (ii) {d,c} (iii) {a,c,e} (iv) {b,a} (v) {f,b,e}

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



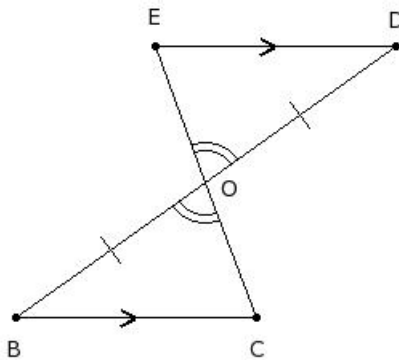
- (i)  $\triangle DFG \cong \triangle DEF$
- (ii)  $\triangle DGF \cong \triangle DEF$
- (iii)  $\triangle DGF \cong \triangle EFD$
- (iv)  $\triangle DFG \cong \triangle DFE$
- (v)  $\triangle DFG \cong \triangle FDE$

12. With the data in the given figure,  $\triangle CDF \cong \triangle CEF$  by which property ?



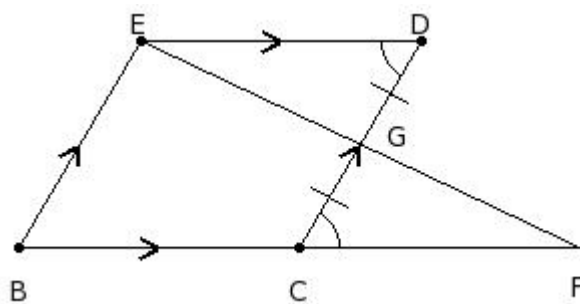
- (i) ASA Congruency
- (ii) not congruent
- (iii) RHS Congruency
- (iv) SAS Congruency
- (v) SSS Congruency

13. With the data in the given figure,  $\triangle OED \cong \triangle OCB$  by which property ?



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

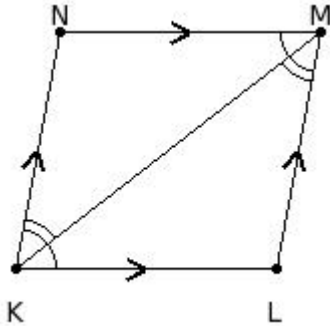
14. With the given data in the figure,  $\triangle EDG \cong \triangle FCG$  by which property ?



- (i) SSS Congruency
- (ii) SAS Congruency

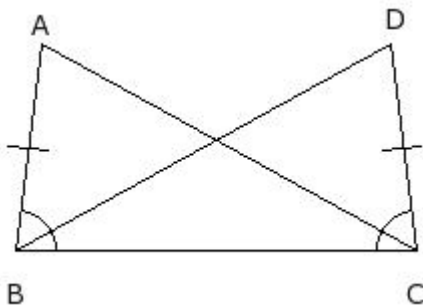
- (iii) RHS Congruency
  - (iv) not congruent
  - (v) ASA Congruency
- 

15. With the given data in the figure,  $\triangle KLM \cong \triangle MNK$  by which property ?



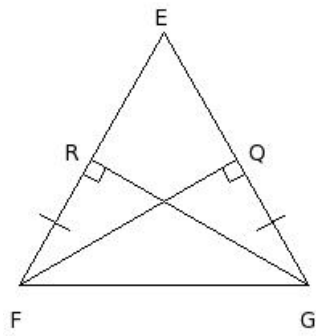
- (i) not congruent
  - (ii) SSS Congruency
  - (iii) ASA Congruency
  - (iv) SAS Congruency
  - (v) RHS Congruency
- 

16. With the given data in the figure,  $\triangle ABC \cong \triangle DCB$  by which property ?



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

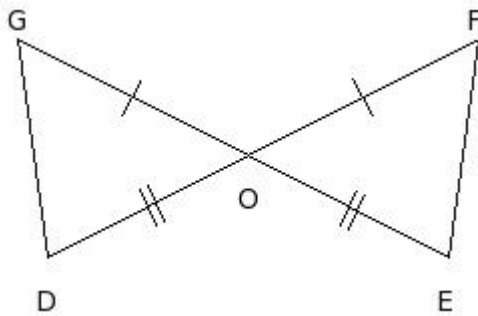
17. With the given data in the figure,  $\triangle RFG \cong \triangle QGF$  by which property ?



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

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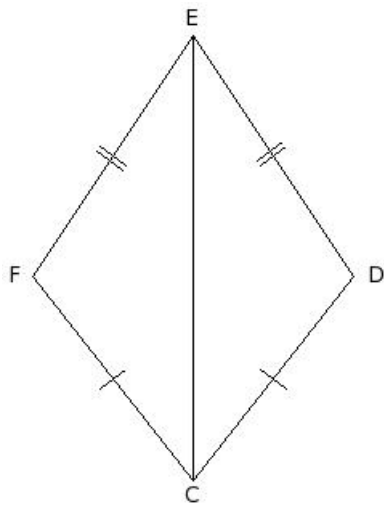
18. With the data in the given figure,  $\triangle DGO \cong \triangle EFO$  by which property ?



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

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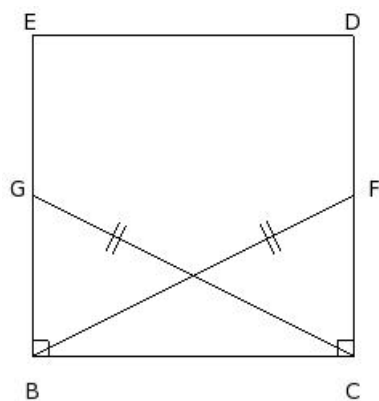
19. With the data in the given figure,  $\triangle CFE \cong \triangle CDE$  by which property ?



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

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20. With the data in the given figure,  $\triangle GBC \cong \triangle FCB$  by which property ?

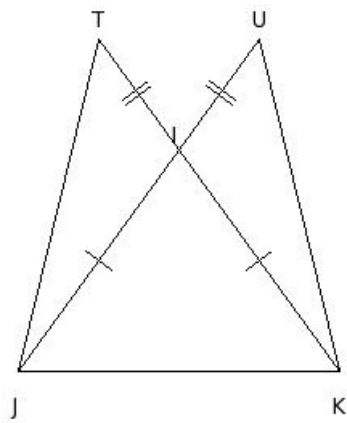


- (i) RHS Congruency
- (ii) not congruent
- (iii) SSS Congruency
- (iv) SAS Congruency
- (v) ASA Congruency

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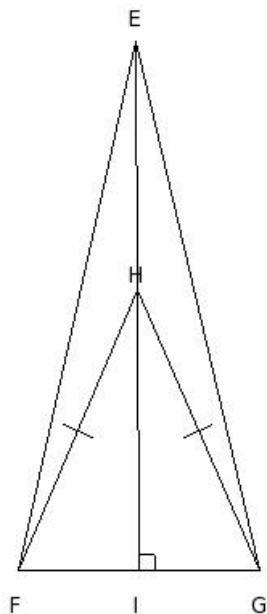
21. With the data in the given figure,  $\triangle TJK \cong \triangle UKJ$  by which property ?





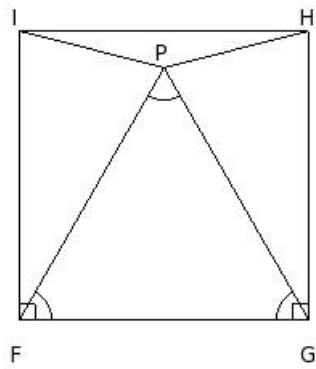
- (i) SSS Congruency
- (ii) RHS Congruency
- (iii) not congruent
- (iv) ASA Congruency
- (v) SAS Congruency

22. In the given figure,  $\triangle HFG$  is an isosceles triangle.  $EH \perp FG$  passing through H.  $\triangle EHF \cong \triangle EHG$  by which property ?



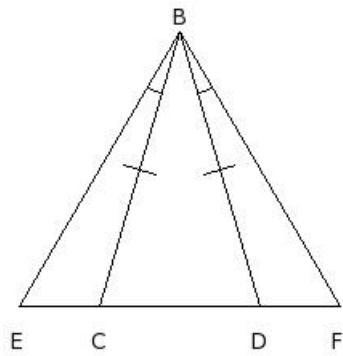
- (i) RHS Congruency
- (ii) SAS Congruency
- (iii) not congruent
- (iv) ASA Congruency
- (v) SSS Congruency

23. In the given figure, FGHI is a square and  $\triangle PFG$  is an equilateral triangle.  $\triangle PIF \cong \triangle PHG$  by which property ?



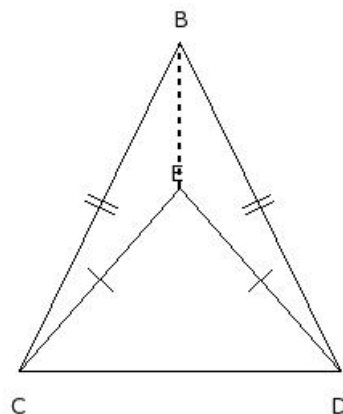
- (i) not congruent
- (ii) SSS Congruency
- (iii) ASA Congruency
- (iv) RHS Congruency
- (v) SAS Congruency

24. With the data in the given figure,  $\triangle BCE \cong \triangle BDF$  by which property ?



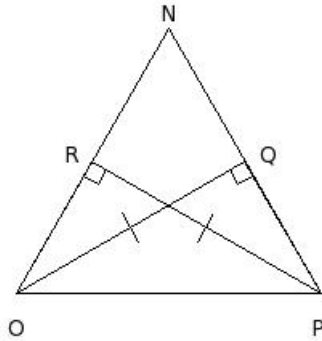
- (i) RHS Congruency
- (ii) SAS Congruency
- (iii) ASA Congruency
- (iv) not congruent
- (v) SSS Congruency

25. With the data in the given figure,  $\triangle BEC \cong \triangle BED$  by which property ?



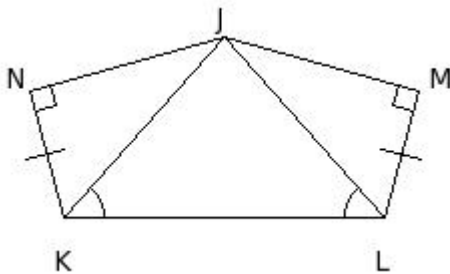
- (i) SAS Congruency
  - (ii) RHS Congruency
  - (iii) not congruent
  - (iv) ASA Congruency
  - (v) SSS Congruency
- 

26. With the data in the given figure,  $\triangle OQP \cong \triangle PRO$  by which property ?



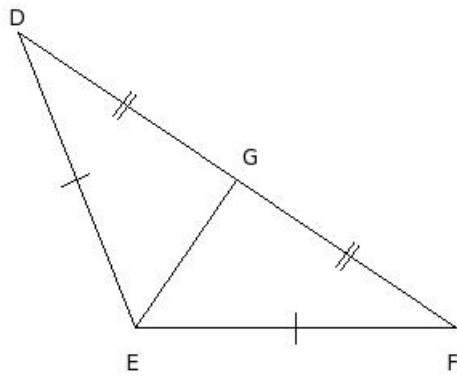
- (i) ASA Congruency
  - (ii) SAS Congruency
  - (iii) RHS Congruency
  - (iv) not congruent
  - (v) SSS Congruency
- 

27. With the data in the given figure,  $\triangle JKN \cong \triangle JLM$  by which property ?



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

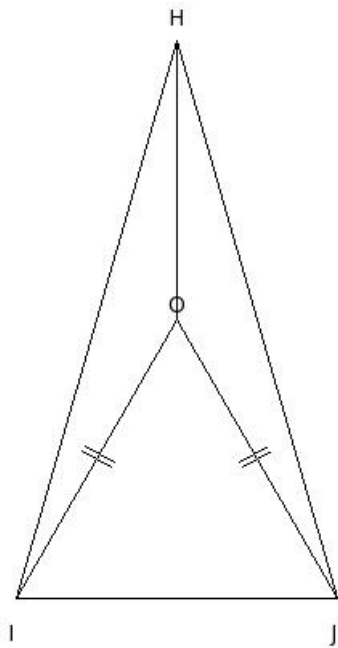
28. In the given figure,  $\triangle DEF$  is an obtuse angled triangle.  $\triangle DEG \cong \triangle FEG$  by which property ?



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

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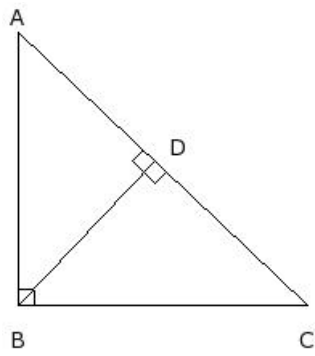
29. With the data in the given figure,  $\triangle HOI \cong \triangle HOJ$  by which property ?



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

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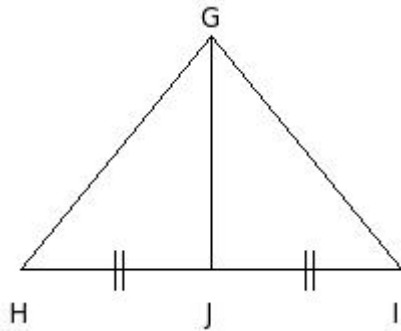
30. With the data in the figure,  $\triangle ADB \cong \triangle CDB$  by which property ?



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

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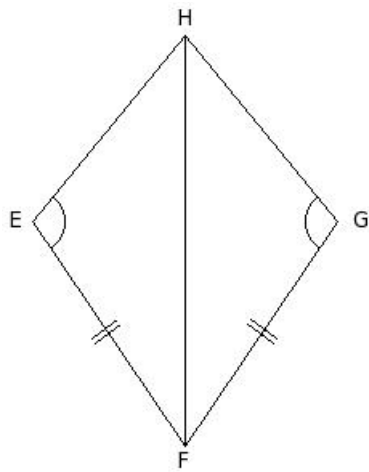
31. With the data in the figure,  $\triangle GJH \cong \triangle GJI$  by which property ?



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

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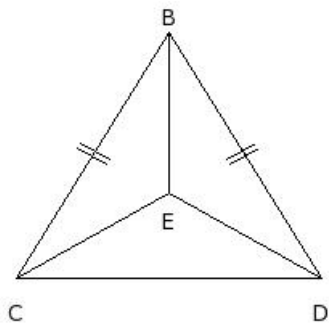
32. With the data in the figure,  $\triangle EHF \cong \triangle GHF$  by which property ?



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

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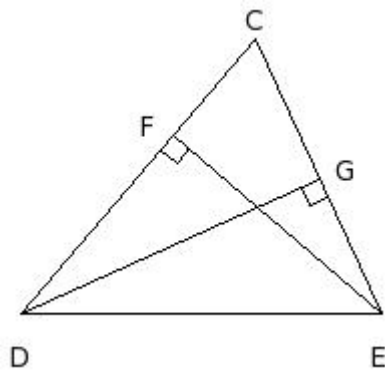
33. With the data in the figure,  $\triangle BCE \cong \triangle BDE$  by which property ?



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

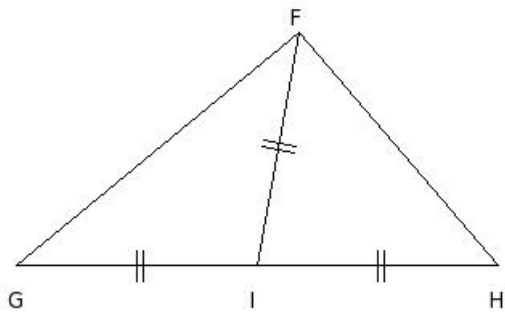
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34. With the data in the figure,  $\triangle DGE \cong \triangle EFD$  by which property ?



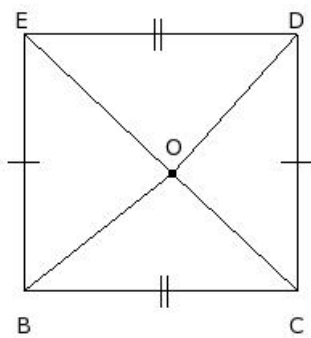
- (i) ASA Congruency
- (ii) RHS Congruency
- (iii) not congruent
- (iv) SAS Congruency
- (v) SSS Congruency

35. With the data in the figure,  $\triangle FIG \cong \triangle FIH$  by which property ?



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

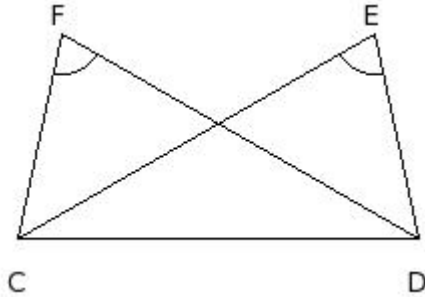
36. With the data in the figure,  $\triangle BOC \cong \triangle EOD$  by which property ?



- (i) SSS Congruency
- (ii) ASA Congruency

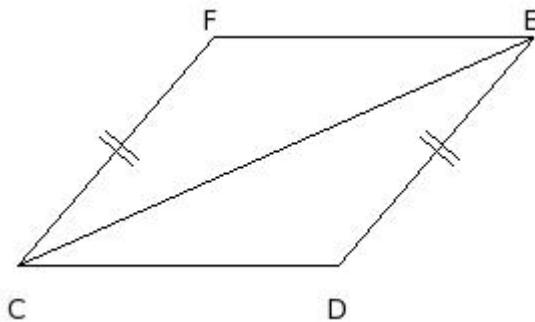
- (iii) not congruent
  - (iv) SAS Congruency
  - (v) RHS Congruency
- 

37. With the data in the figure,  $\triangle CDF \cong \triangle DCE$  by which property ?



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

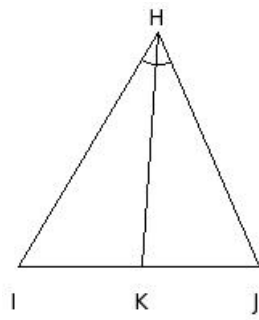
38. With the data in the figure,  $\triangle CEF \cong \triangle ECD$  by which property ?



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

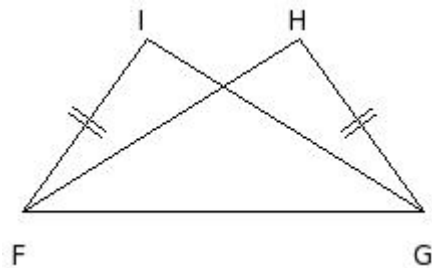
39. With the data in the figure,  $\triangle HKI \cong \triangle HKJ$  by which property ?





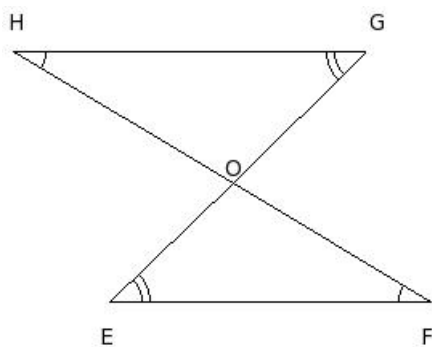
- (i) ASA Congruency
- (ii) SAS Congruency
- (iii) SSS Congruency
- (iv) RHS Congruency
- (v) not congruent

40. With the data in the figure,  $\triangle FIG \cong \triangle GHF$  by which property ?



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

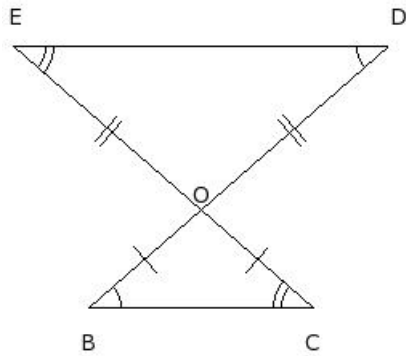
41. With the data in the figure,  $\triangle EOF \cong \triangle GOH$  by which property ?



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

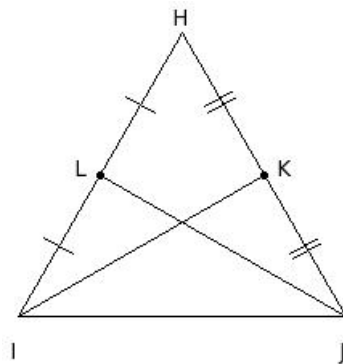
(v) RHS Congruency

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



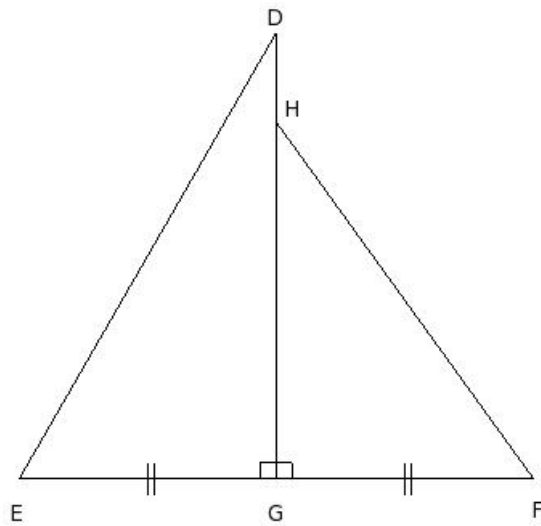
- (i) RHS Congruency
- (ii) SSS Congruency
- (iii) SAS Congruency
- (iv) ASA Congruency
- (v) not congruent

43. With the data in the figure,  $\triangle IJL \cong \triangle JIK$  by which property ?



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

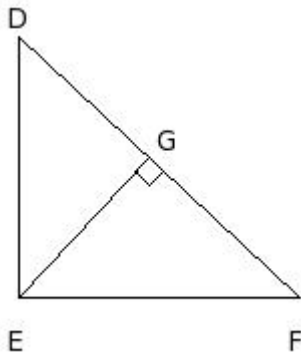
44. With the data in the figure,  $\triangle DEG \cong \triangle HFG$  by which property ?



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

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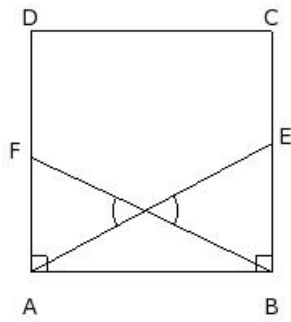
45. With the data in the figure,  $\triangle DEG \cong \triangle FEG$  by which property ?



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

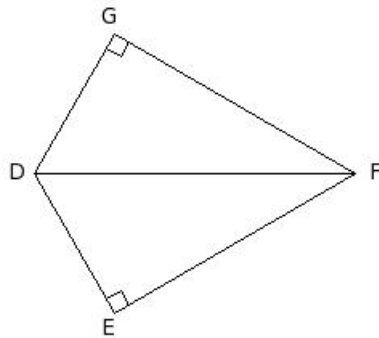
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46. With the data in the figure,  $\triangle ABE \cong \triangle BAF$  by which property ?



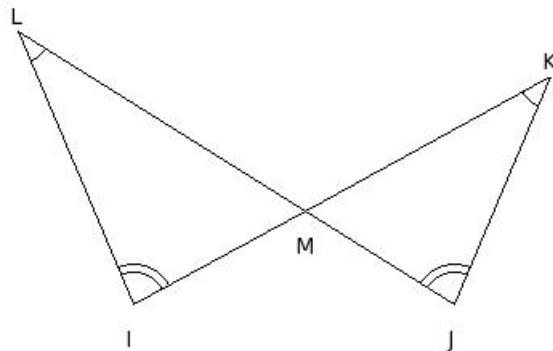
- (i) SAS Congruency
- (ii) RHS Congruency
- (iii) SSS Congruency
- (iv) ASA Congruency
- (v) not congruent

47. With the data in the figure,  $\triangle DFG \cong \triangle DFE$  by which property ?



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

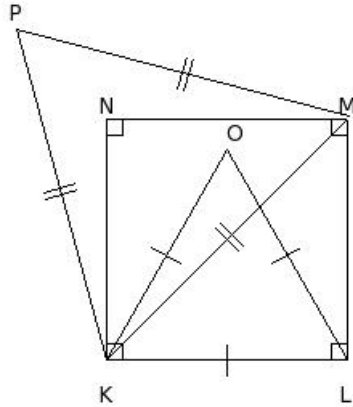
48. With the data in the figure,  $\triangle IML \cong \triangle JMK$  by which property ?



- (i) ASA Congruency
- (ii) SSS Congruency

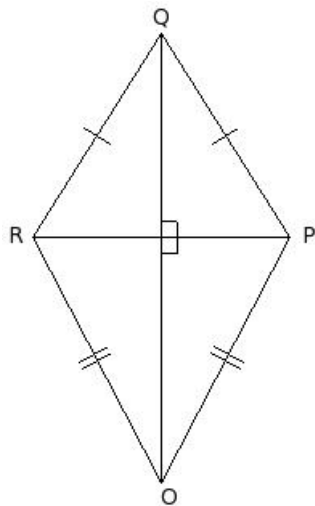
- (iii) RHS Congruency
- (iv) SAS Congruency
- (v) not congruent

49. With the data in the figure,  $\triangle KLO \cong \triangle KMP$  by which property ?



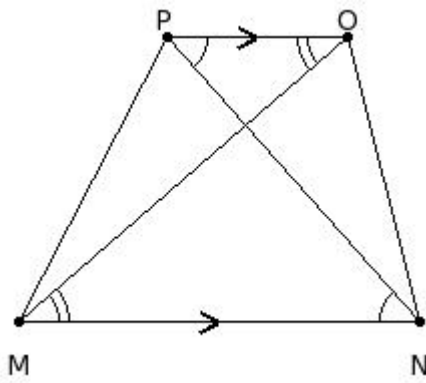
- (i) RHS Congruency
- (ii) ASA Congruency
- (iii) not congruent
- (iv) SSS Congruency
- (v) SAS Congruency

50. With the data in the given figure,  $\triangle OPR \cong \triangle QPR$  by which property ?



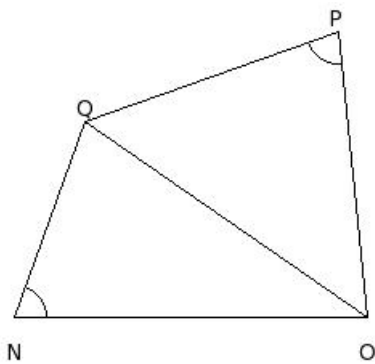
- (i) not congruent
- (ii) SAS Congruency
- (iii) ASA Congruency
- (iv) SSS Congruency
- (v) RHS Congruency

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



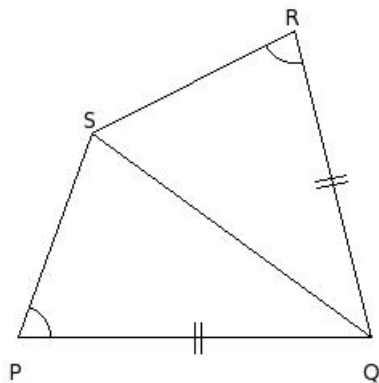
- (i) RHS Congruency
- (ii) not congruent
- (iii) SSS Congruency
- (iv) SAS Congruency
- (v) ASA Congruency

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



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

53. With the data in the given figure,  $\triangle PQS \cong \triangle RQS$  by which property ?



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

54. In the given figure, which pair of triangles are not congruent ?

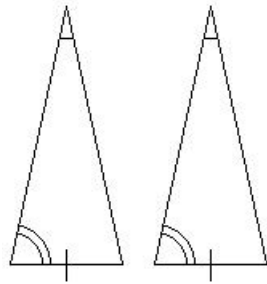


fig 3

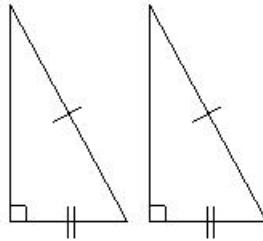


fig 4

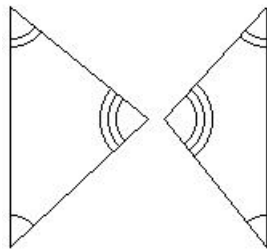


fig 1

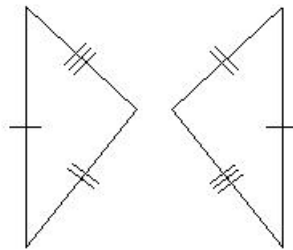


fig 2

- (i) fig 4 (ii) fig 3 (iii) fig 1 (iv) fig 2

55. In the given figure, which pair of triangles are not congruent ?

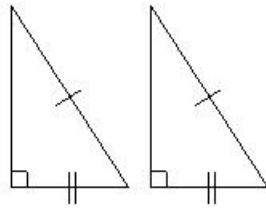


fig 3

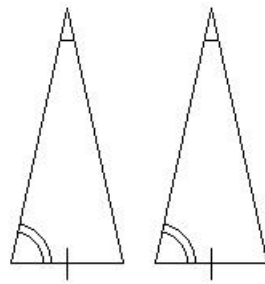


fig 4

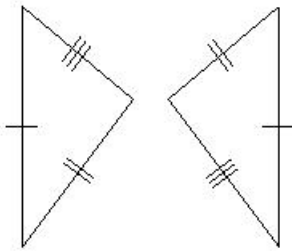


fig 1

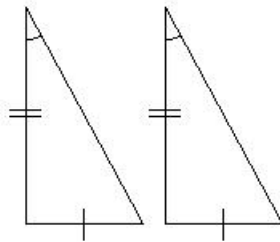


fig 2

(i) fig 2 (ii) fig 1 (iii) fig 4 (iv) fig 3

56. In the given figure, which pair of triangles are not congruent ?

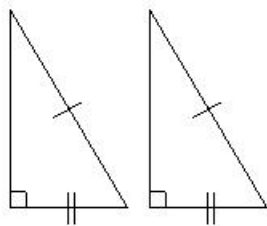


fig 3

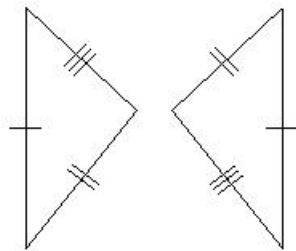


fig 4

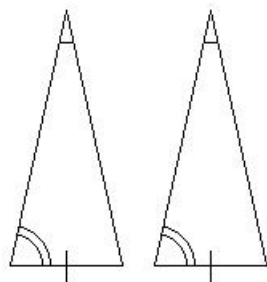


fig 1

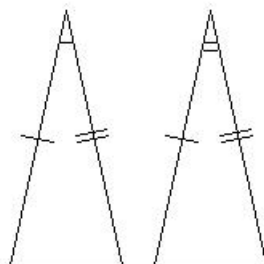


fig 2

(i) fig 1 (ii) fig 4 (iii) fig 3 (iv) fig 2



## Assignment Key

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

- 40) (iii)
- 41) (iii)
- 42) (v)
- 43) (iv)
- 44) (ii)
- 45) (ii)
- 46) (v)
- 47) (iii)
- 48) (v)
- 49) (iii)
- 50) (i)
- 51) (ii)
- 52) (i)
- 53) (iv)
- 54) (iii)
- 55) (i)
- 56) (iv)