EduSahara™ Assignment

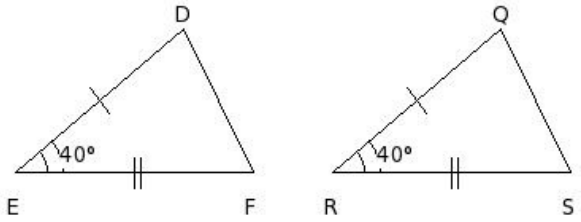
Name : Congruency of Triangles

Chapter : Congruence of Triangles

Grade : CBSE Grade VII

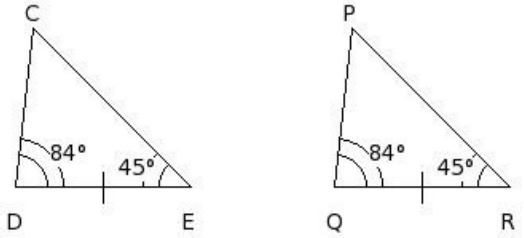


1. Identify the property by which the two given triangles are congruent



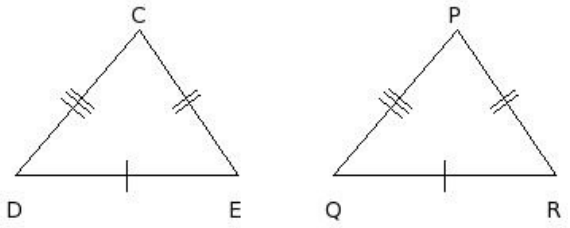

(i) SAS Congruency (ii) ASA Congruency (iii) SSS Congruency (iv) RHS Congruency

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



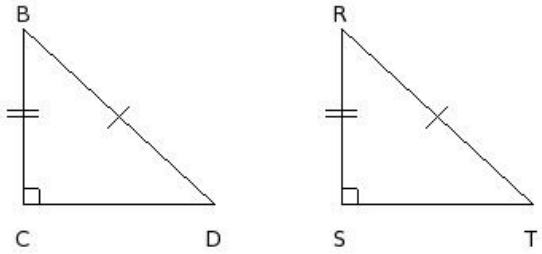

(i) RHS Congruency (ii) ASA Congruency (iii) SAS Congruency (iv) SSS Congruency

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

5. Which of the following are true?

a) Any two triangles are congruent.
b) Any two triangles are similar.
c) Any two circles are congruent.
d) Any two squares are congruent.
e) Any two squares are similar.
f) Any two circles are similar.

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

6. Which of the following are true?

a) A sector is a polygonal region.
b) A circle is a polygonal region.
c) A semi-circle is a polygonal region.
d) A triangle is a polygonal region.
e) A square is a polygonal region.

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

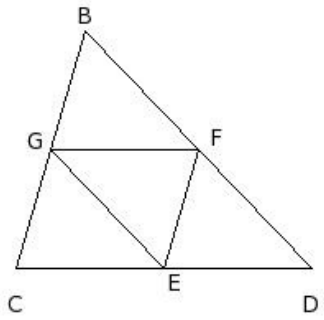
7. Which of the following are true?

a) Similar figures have same area.
b) Similar and congruent are not synonymous.
c) If two figures are similar, then they are congruent too.
d) If two figures are congruent, then they are similar too.
e) Congruent figures have same area.

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

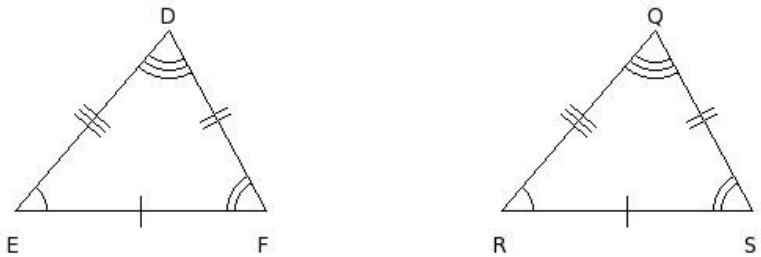
8. In the given figure, points E , F and G are the mid-points of sides CD, DB and BC of △BCD. Which of the following are true?

a) △GCE ≅ △BGF
b) △GCE ≅ △EFG
c) △BGF ≅ △EGF
d) △BGF ≅ △FED
e) △BGF ≅ △EFG




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

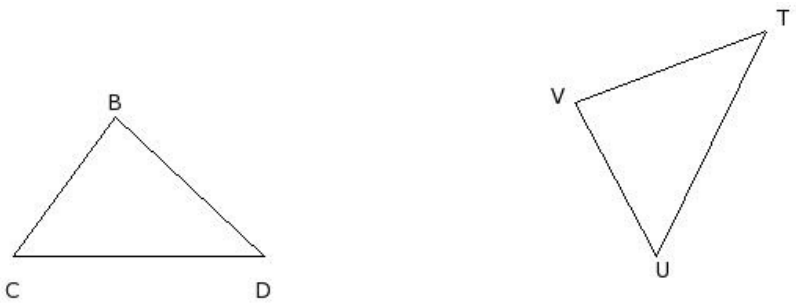
9. In the given figure, which of the following is true?




(i) △DEF ≅ △SRQ (ii) △DEF ≅ △SQR (iii) △DEF ≅ △RSQ (iv) △DEF ≅ △QRS (v) △EFD ≅ △QRS

10. In the given figure, △BCD ≅ △VUT. Which of the following are true?

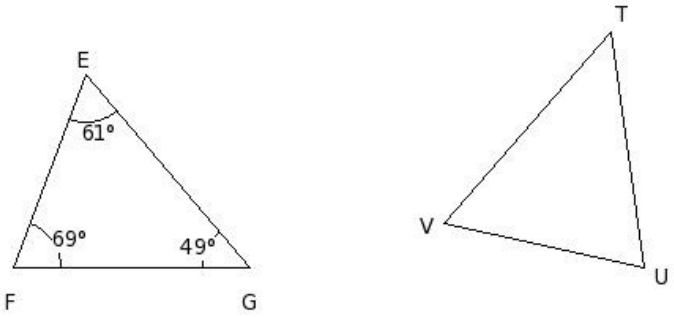
a) ∠C = ∠U
b) ∠B = ∠T
c) CD = VU
d) CD = UT
e) ∠D = ∠T




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

11. In the given figure, △EFG ≅ △VUT. Which of the following are true?

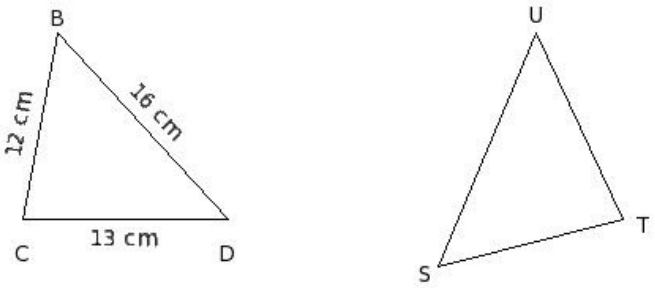
a) ∠U = 69°
b) ∠T = 49°
c) ∠V = 61°
d) ∠U = 49°
e) ∠T = 61°
f) ∠V = 69°




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

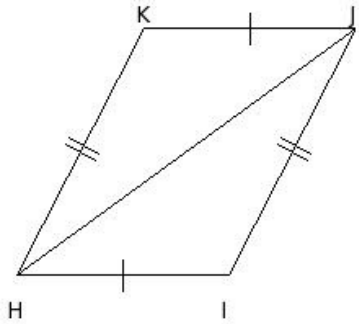
12. In the given figure, △BCD ≅ △STU. Which of the following are true?

a) TU = 12 cm
b) US = 16 cm
c) TU = 13 cm
d) US = 12 cm
e) ST = 13 cm
f) ST = 12 cm



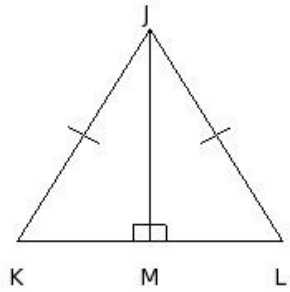

(i) {e,a,f} (ii) {a,b} (iii) {b,c,f} (iv) {d,b,c} (v) {d,c}

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



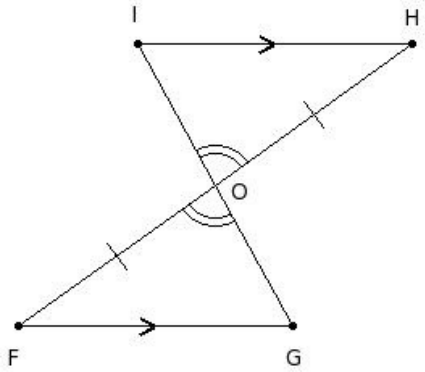

(i) △HJK ≅ △JHI (ii) △HJK ≅ △HIJ (iii) △HKJ ≅ △HIJ (iv) △HKJ ≅ △IJH (v) △HJK ≅ △HJI

14. With the data in the given figure, △JKM ≅ △JLM by which property?



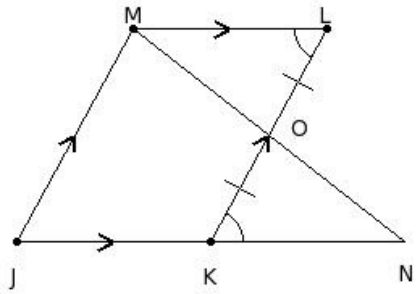

(i) RHS Congruency (ii) not congruent (iii) SSS Congruency (iv) SAS Congruency (v) ASA Congruency

15. With the data in the given figure, △OIH ≅ △OGF by which property?



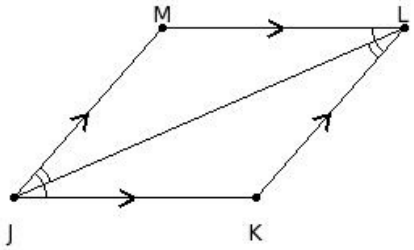

(i) ASA Congruency (ii) not congruent (iii) SAS Congruency (iv) RHS Congruency (v) SSS Congruency

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



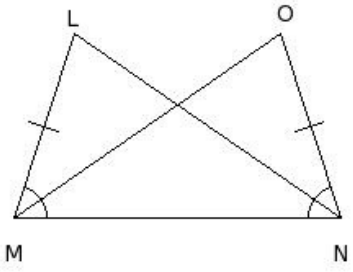

(i) SAS Congruency (ii) not congruent (iii) SSS Congruency (iv) RHS Congruency (v) ASA Congruency

17. With the given data in the figure, △JKL ≅ △LMJ by which property?



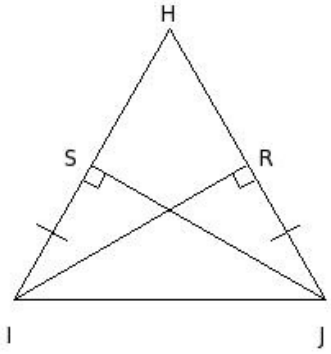

(i) SSS Congruency (ii) ASA Congruency (iii) RHS Congruency (iv) not congruent (v) SAS Congruency

18. With the given data in the figure, △LMN ≅ △ONM by which property?



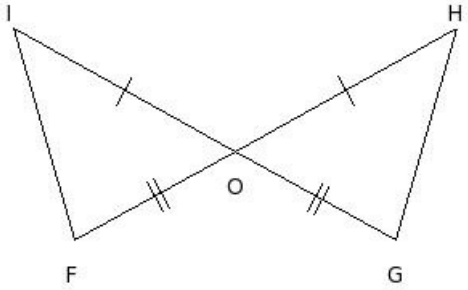

(i) SSS Congruency (ii) ASA Congruency (iii) RHS Congruency (iv) SAS Congruency (v) not congruent

19. With the given data in the figure, △SIJ ≅ △RJI by which property?



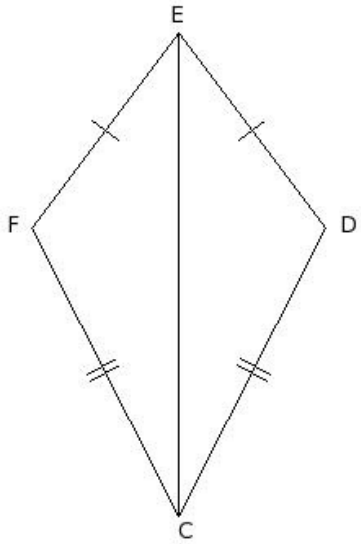

(i) ASA Congruency (ii) RHS Congruency (iii) SAS Congruency (iv) SSS Congruency (v) not congruent

20. With the data in the given figure, △FIO ≅ △GHO by which property?



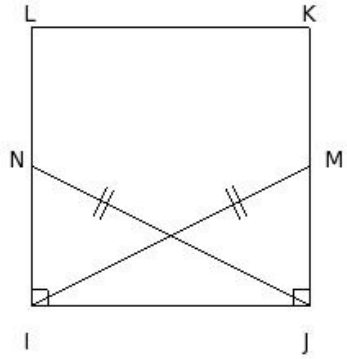

(i) RHS Congruency (ii) SAS Congruency (iii) SSS Congruency (iv) not congruent (v) ASA Congruency

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



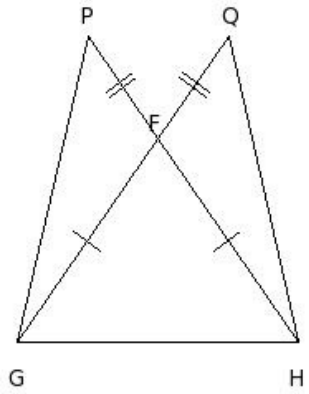

(i) RHS Congruency (ii) not congruent (iii) SSS Congruency (iv) SAS Congruency (v) ASA Congruency

22. With the data in the given figure, △NIJ ≅ △MJI by which property?



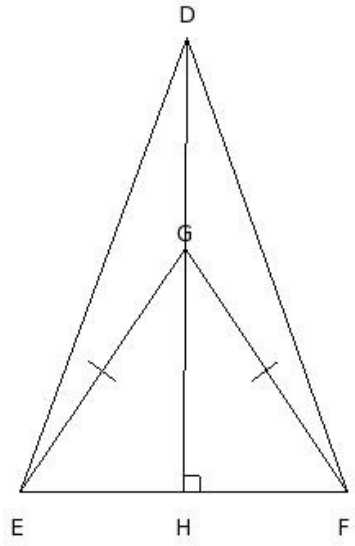

(i) ASA Congruency (ii) SAS Congruency (iii) SSS Congruency (iv) not congruent (v) RHS Congruency

23. With the data in the given figure, △PGH ≅ △QHG by which property?



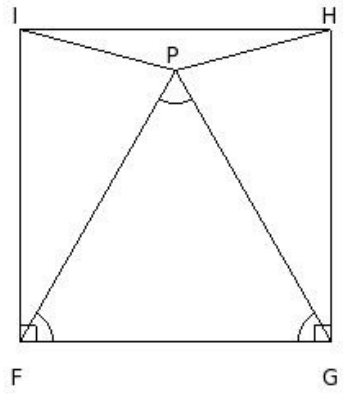

(i) SSS Congruency (ii) RHS Congruency (iii) SAS Congruency (iv) not congruent (v) ASA Congruency

24. In the given figure, △GEF is an isosceles triangle. DH ⊥ EF passing through G. △DGE ≅ △DGF by which property?



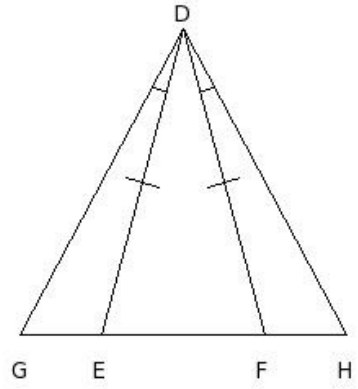

(i) SAS Congruency (ii) RHS Congruency (iii) not congruent (iv) SSS Congruency (v) ASA Congruency

25. In the given figure, FGHI is a square and △PFG is an equilateral triangle. △PIF ≅ △PHG by which property?



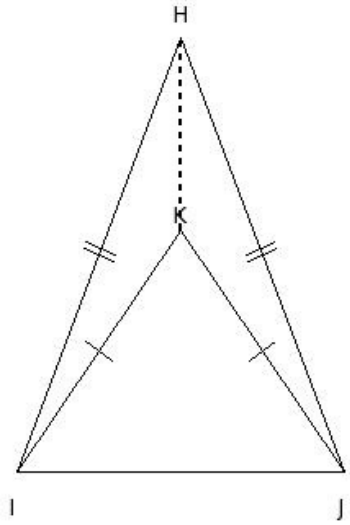

(i) ASA Congruency (ii) SAS Congruency (iii) SSS Congruency (iv) not congruent (v) RHS Congruency

26. With the data in the given figure, △DEG ≅ △DFH by which property?



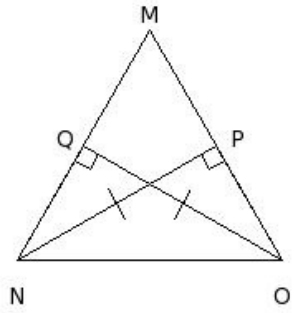

(i) not congruent (ii) ASA Congruency (iii) RHS Congruency (iv) SAS Congruency (v) SSS Congruency

27. With the data in the given figure, △HKI ≅ △HKJ by which property?



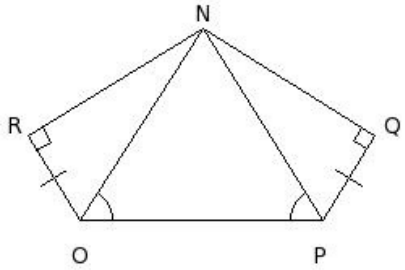

(i) SSS Congruency (ii) SAS Congruency (iii) RHS Congruency (iv) not congruent (v) ASA Congruency

28. With the data in the given figure, △NPO ≅ △OQN by which property?



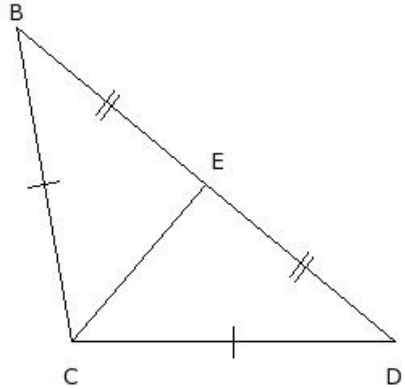

(i) not congruent (ii) SSS Congruency (iii) RHS Congruency (iv) ASA Congruency (v) SAS Congruency

29. With the data in the given figure, △NOR ≅ △NPQ by which property?



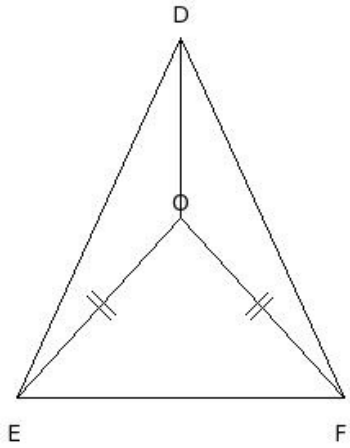

(i) SAS Congruency (ii) SSS Congruency (iii) not congruent (iv) RHS Congruency (v) ASA Congruency

30. In the given figure, △BCD is an obtuse angled triangle. △BCE ≅ △DCE by which property?



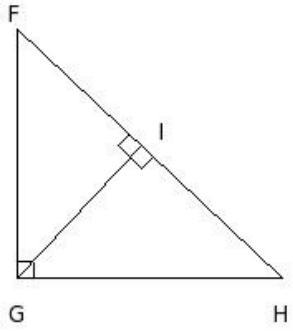

(i) not congruent (ii) RHS Congruency (iii) SAS Congruency (iv) SSS Congruency (v) ASA Congruency

31. With the data in the given figure, △DOE ≅ △DOF by which property?



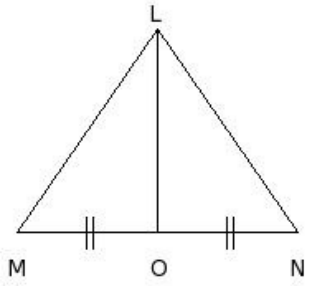

(i) ASA Congruency (ii) RHS Congruency (iii) not congruent (iv) SAS Congruency (v) SSS Congruency

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



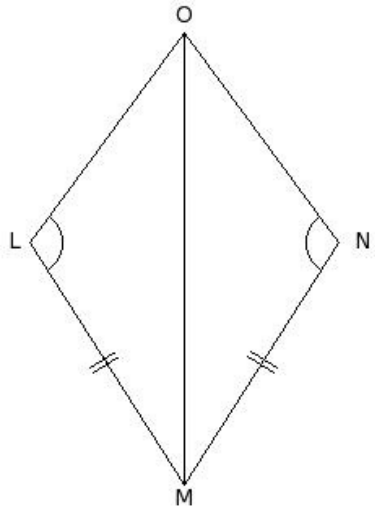

(i) not congruent (ii) SSS Congruency (iii) SAS Congruency (iv) RHS Congruency (v) ASA Congruency

33. With the data in the figure, △LOM ≅ △LON by which property?



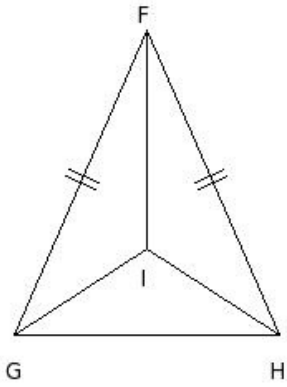

(i) SSS Congruency (ii) ASA Congruency (iii) RHS Congruency (iv) not congruent (v) SAS Congruency

34. With the data in the figure, △LOM ≅ △NOM by which property?



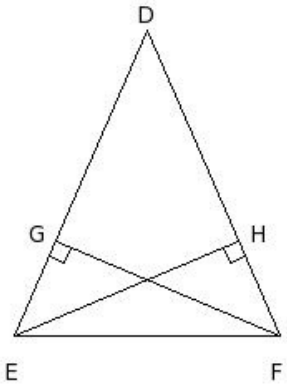

(i) RHS Congruency (ii) not congruent (iii) ASA Congruency (iv) SAS Congruency (v) SSS Congruency

35. With the data in the figure, △FGI ≅ △FHI by which property?



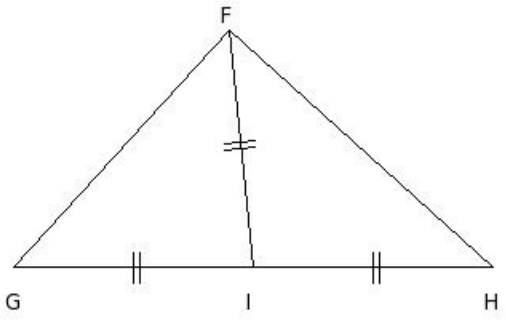

(i) SSS Congruency (ii) RHS Congruency (iii) not congruent (iv) ASA Congruency (v) SAS Congruency

36. With the data in the figure, △EHF ≅ △FGE by which property?



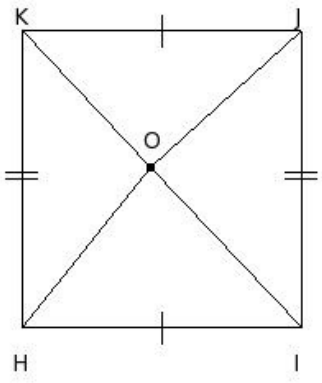

(i) SSS Congruency (ii) not congruent (iii) ASA Congruency (iv) SAS Congruency (v) RHS Congruency

37. With the data in the figure, △FIG ≅ △FIH by which property?



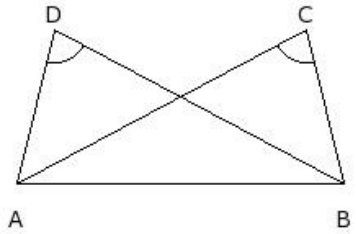

(i) SAS Congruency (ii) RHS Congruency (iii) SSS Congruency (iv) ASA Congruency (v) not congruent

38. With the data in the figure, △HOI ≅ △KOJ by which property?



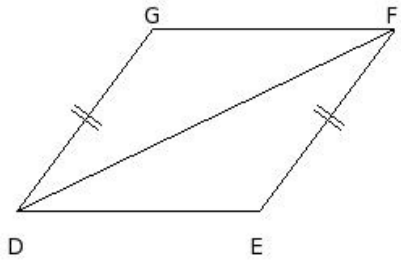

(i) SAS Congruency (ii) ASA Congruency (iii) not congruent (iv) RHS Congruency (v) SSS Congruency

39. With the data in the figure, △ABD ≅ △BAC by which property?



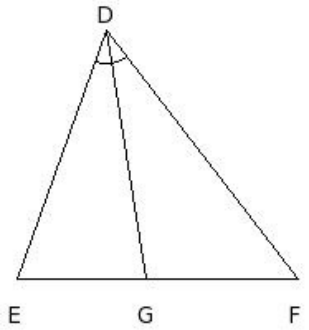

(i) not congruent (ii) SAS Congruency (iii) SSS Congruency (iv) RHS Congruency (v) ASA Congruency

40. With the data in the figure, △DFG ≅ △FDE by which property?



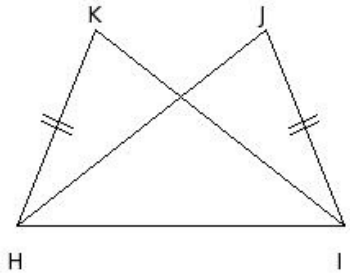

(i) SAS Congruency (ii) SSS Congruency (iii) ASA Congruency (iv) RHS Congruency (v) not congruent

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



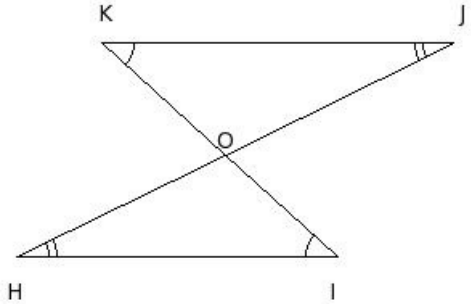

(i) ASA Congruency (ii) not congruent (iii) SSS Congruency (iv) SAS Congruency (v) RHS Congruency

42. With the data in the figure, △HKI ≅ △IJH by which property?



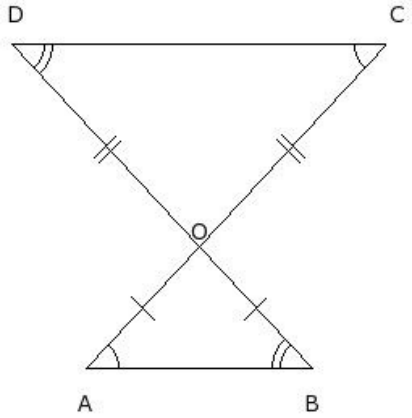

(i) SAS Congruency (ii) SSS Congruency (iii) not congruent (iv) RHS Congruency (v) ASA Congruency

43. With the data in the figure, △HOI ≅ △JOK by which property?



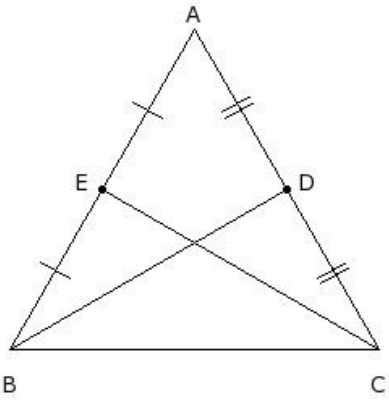

(i) RHS Congruency (ii) ASA Congruency (iii) SSS Congruency (iv) SAS Congruency (v) not congruent

44. With the data in the figure, △AOB ≅ △COD by which property?



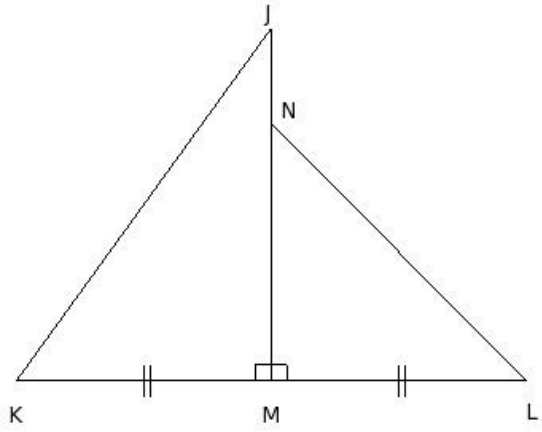

(i) ASA Congruency (ii) not congruent (iii) SSS Congruency (iv) RHS Congruency (v) SAS Congruency

45. With the data in the figure, △BCE ≅ △CBD by which property?



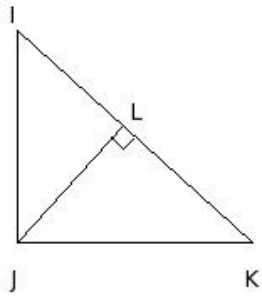

(i) not congruent (ii) ASA Congruency (iii) SSS Congruency (iv) RHS Congruency (v) SAS Congruency

46. With the data in the figure, △JKM ≅ △NLM by which property?



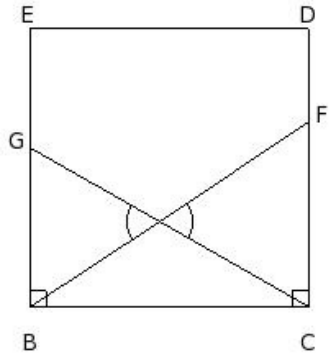

(i) ASA Congruency (ii) not congruent (iii) RHS Congruency (iv) SAS Congruency (v) SSS Congruency

47. With the data in the figure, △IJL ≅ △KJL by which property?



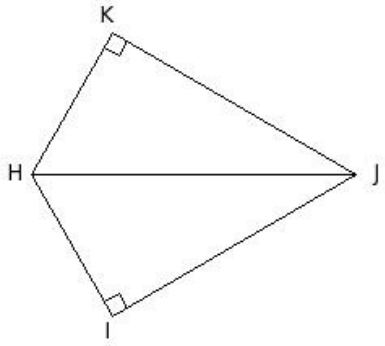

(i) not congruent (ii) SSS Congruency (iii) ASA Congruency (iv) SAS Congruency (v) RHS Congruency

48. With the data in the figure, △BCF ≅ △CBG by which property?



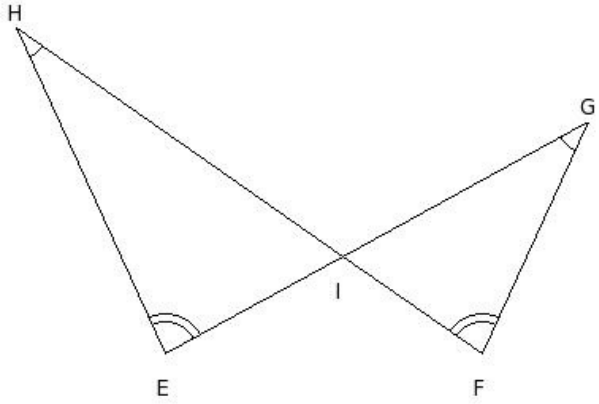

(i) SAS Congruency (ii) ASA Congruency (iii) RHS Congruency (iv) not congruent (v) SSS Congruency

49. With the data in the figure, △HJK ≅ △HJI by which property?



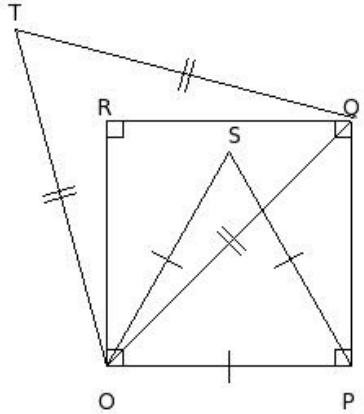

(i) not congruent (ii) SSS Congruency (iii) SAS Congruency (iv) RHS Congruency (v) ASA Congruency

50. With the data in the figure, △EIH ≅ △FIG by which property?



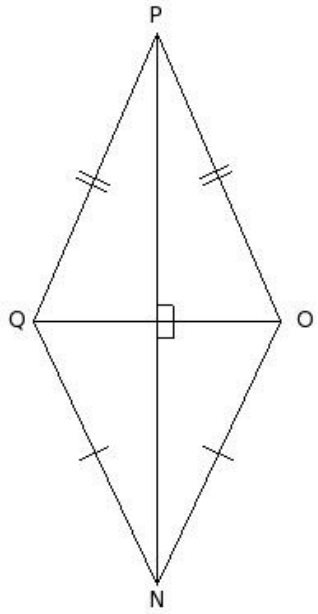

(i) ASA Congruency (ii) SSS Congruency (iii) SAS Congruency (iv) not congruent (v) RHS Congruency

51. With the data in the figure, △OPS ≅ △OQT by which property?



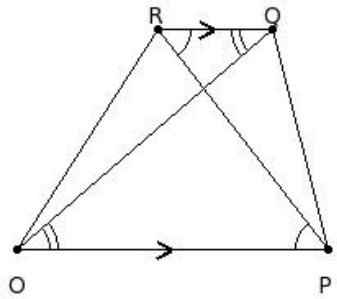

(i) not congruent (ii) ASA Congruency (iii) SAS Congruency (iv) RHS Congruency (v) SSS Congruency

52. With the data in the given figure, △NOQ ≅ △POQ by which property?



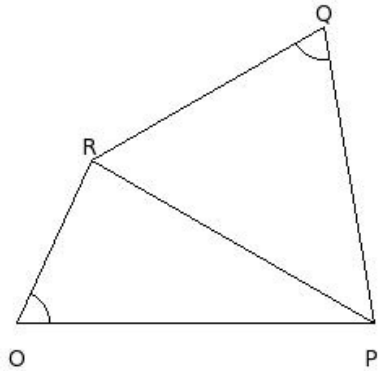

(i) SSS Congruency (ii) SAS Congruency (iii) not congruent (iv) ASA Congruency (v) RHS Congruency

53. With the data in the given figure, △OPR ≅ △POQ by which property?



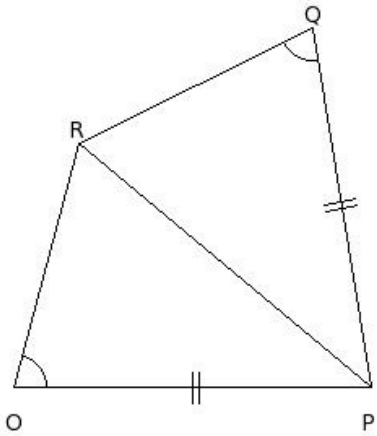

(i) SAS Congruency (ii) not congruent (iii) RHS Congruency (iv) ASA Congruency (v) SSS Congruency

54. With the data in the given figure, △OPR ≅ △QRP by which property?




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

55. 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

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

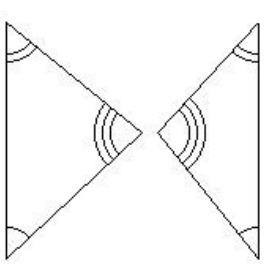


fig 3

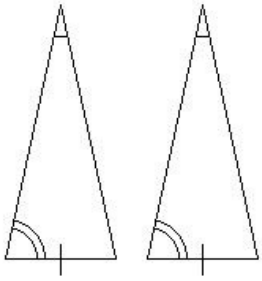


fig 4

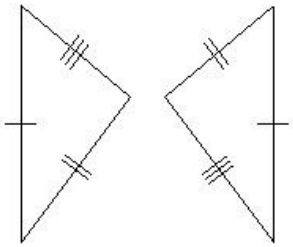


fig 1

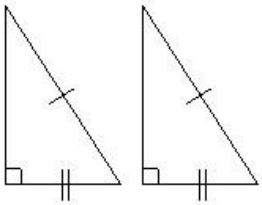


fig 2

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

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

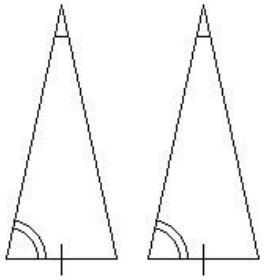


fig 3

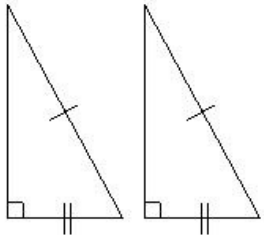


fig 4

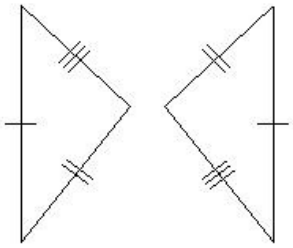


fig 1

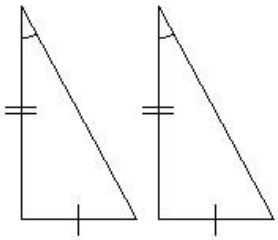


fig 2

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

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

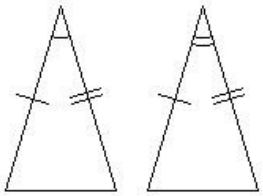


fig 3

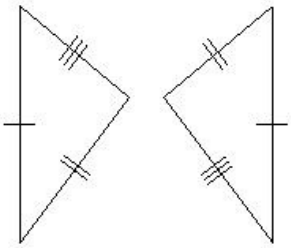


fig 4

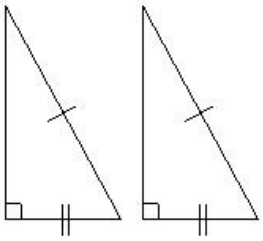


fig 1

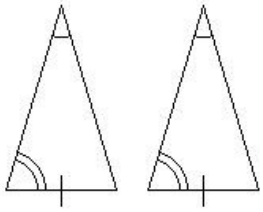


fig 2

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

# Assignment Key

| | | | | | |
|---|---|---|---|---|---|
| 1) (i) | 2) (ii) | 3) (iv) | 4) (ii) | 5) (v) | 6) (ii) |
| 7) (v) | 8) (iii) | 9) (iv) | 10) (iv) | 11) (v) | 12) (iii) |
| 13) (i) | 14) (i) | 15) (i) | 16) (v) | 17) (ii) | 18) (iv) |
| 19) (ii) | 20) (ii) | 21) (iii) | 22) (v) | 23) (iii) | 24) (i) |
| 25) (ii) | 26) (ii) | 27) (i) | 28) (iii) | 29) (iv) | 30) (iv) |
| 31) (iii) | 32) (i) | 33) (iv) | 34) (ii) | 35) (iii) | 36) (ii) |
| 37) (v) | 38) (iii) | 39) (i) | 40) (v) | 41) (ii) | 42) (iii) |
| 43) (v) | 44) (ii) | 45) (i) | 46) (ii) | 47) (i) | 48) (iv) |
| 49) (i) | 50) (iv) | 51) (i) | 52) (iii) | 53) (ii) | 54) (v) |
| 55) (i) | 56) (iv) | 57) (iv) | 58) (iii) | | |