EduSahara™ Assignment

Name : Quadrilateral Properties Using Diagrams

Chapter : Quadrilaterals

Grade : ICSE Grade IX

1. In the given parallelogram, which of the following statements are true?

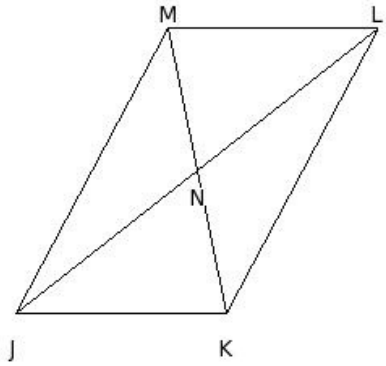
   a) $KN = MN$

   b) $\overline{MJ} \parallel \overline{KL}$

   c) N is the mid point of $\overline{JL}$

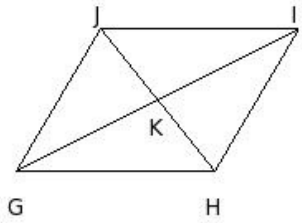
   d) $\triangle KMJ \cong \triangle LMJ$

   e) $KN = NJ$



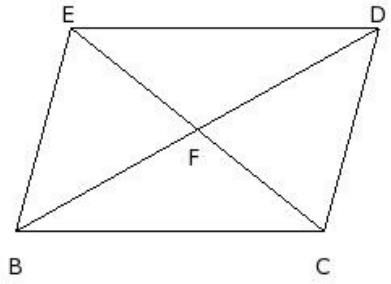
   (i) {d,a} (ii) {d,e,c} (iii) {e,b} (iv) {a,b,c} (v) {d,a,b}

2. In parallelogram $GHIJ$, diagonals $\overline{HJ}$ and $\overline{GI}$ intersect at K. Then $\overline{GH} \parallel$



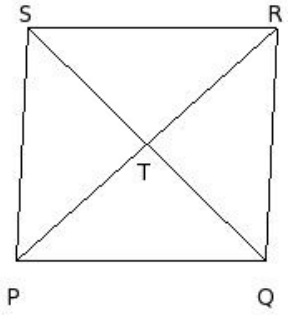
   (i) $\overline{IJ}$ (ii) $\overline{HJ}$ (iii) $\overline{HI}$ (iv) $\overline{GI}$ (v) $\overline{JG}$

3. In parallelogram $BCDE$, diagonals $\overline{CE}$ and $\overline{BD}$ intersect at F. Then $\overline{DE} \parallel$



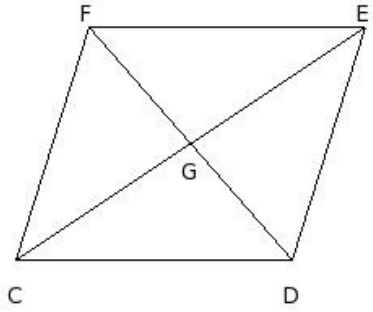
   (i) $\overline{BD}$ (ii) $\overline{CE}$ (iii) $\overline{BC}$ (iv) $\overline{CD}$ (v) $\overline{EB}$

4. In parallelogram PQRS, diagonals $\overline{QS}$ and $\overline{PR}$ intersect at T. Then $\overline{SP}$ ∥



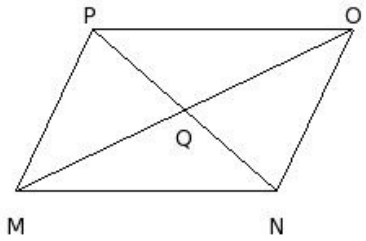
(i) $\overline{PQ}$ (ii) $\overline{RS}$ (iii) $\overline{PR}$ (iv) $\overline{QS}$ (v) $\overline{QR}$

5. In parallelogram CDEF, diagonals $\overline{DF}$ and $\overline{CE}$ intersect at G. Then $\overline{DE}$ ∥



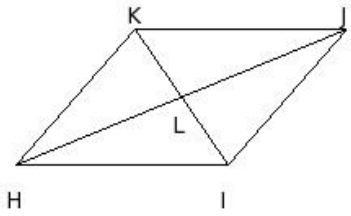
(i) $\overline{CD}$ (ii) $\overline{CE}$ (iii) $\overline{DF}$ (iv) $\overline{EF}$ (v) $\overline{FC}$

6. In parallelogram MNOP, diagonals $\overline{NP}$ and $\overline{MO}$ intersect at Q. Then MN =



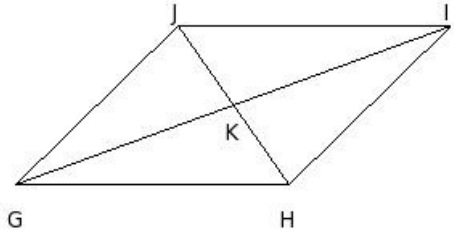
(i) NP (ii) MO (iii) OP (iv) NO (v) PM

7. In parallelogram HIJK, diagonals $\overline{IK}$ and $\overline{HJ}$ intersect at L. Then JK =



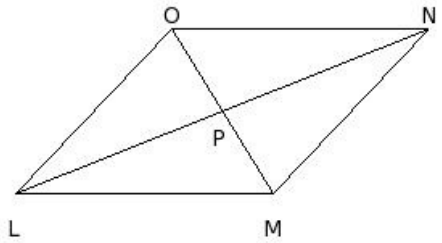
(i) HI (ii) KH (iii) HJ (iv) IJ (v) IK

8. In parallelogram GHIJ, diagonals $\overline{HJ}$ and $\overline{GI}$ intersect at K. Then JG =



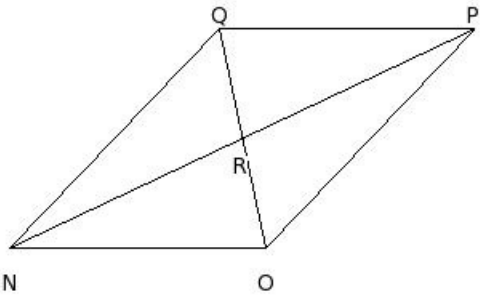
(i) GI (ii) HJ (iii) IJ (iv) HI (v) GH

9. In parallelogram LMNO, diagonals $\overline{MO}$ and $\overline{LN}$ intersect at P. Then MN =



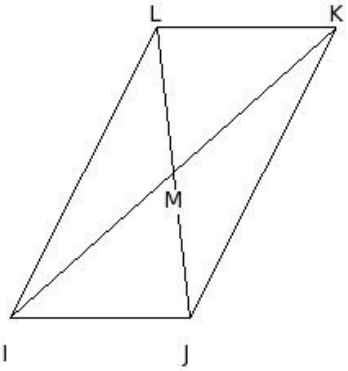
(i) LN (ii) OL (iii) LM (iv) NO (v) MO

10. In parallelogram NOPQ, diagonals $\overline{OQ}$ and $\overline{NP}$ intersect at R. Then △QNO ≅



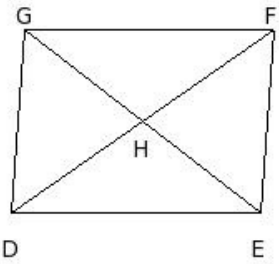
(i) △NOR (ii) △NOP (iii) △PQN (iv) △OPQ (v) △PQR

11. In parallelogram IJKL, diagonals $\overline{JL}$ and $\overline{IK}$ intersect at M. Then △JKL ≅



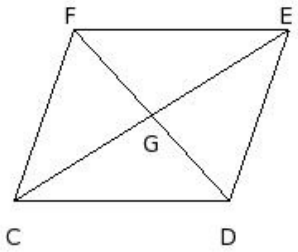
(i) △KLI (ii) △IJK (iii) △IJM (iv) △LIJ (v) △KLM

12. In parallelogram DEFG, diagonals $\overline{EG}$ and $\overline{DF}$ intersect at H. Then △FGD ≅



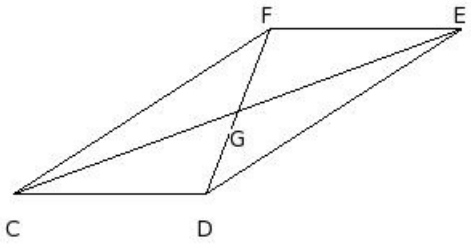
(i) △FGH (ii) △DEF (iii) △GDE (iv) △EFG (v) △DEH

13. In parallelogram CDEF, diagonals $\overline{DF}$ and $\overline{CE}$ intersect at G. Then $\triangle CDE \cong$



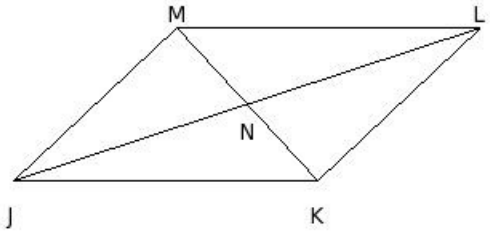
(i) $\triangle EFG$ (ii) $\triangle DEF$ (iii) $\triangle EFC$ (iv) $\triangle FCD$ (v) $\triangle CDG$

14. In parallelogram CDEF, diagonals $\overline{DF}$ and $\overline{CE}$ intersect at G. Then $\angle FCD =$



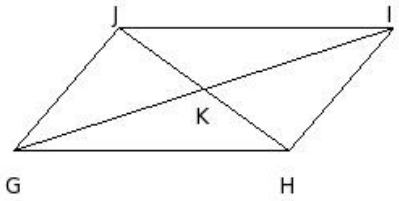
(i) $\angle EFG$ (ii) $\angle EFC$ (iii) $\angle CDG$ (iv) $\angle CDE$ (v) $\angle DEF$

15. In parallelogram JKLM, diagonals $\overline{KM}$ and $\overline{JL}$ intersect at N. Then $\angle KLM =$



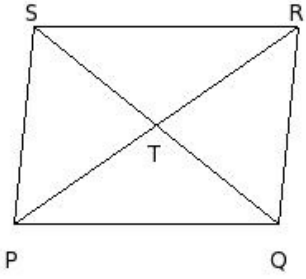
(i) $\angle JKL$ (ii) $\angle LMJ$ (iii) $\angle JKN$ (iv) $\angle MJK$ (v) $\angle LMN$

16. In parallelogram GHIJ, diagonals $\overline{HJ}$ and $\overline{GI}$ intersect at K. Then $\angle GHI =$



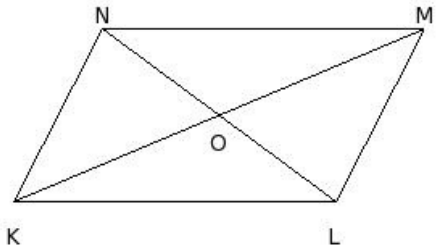
(i) $\angle IJG$ (ii) $\angle GHK$ (iii) $\angle JGH$ (iv) $\angle HIJ$ (v) $\angle IJK$

17. In parallelogram PQRS, diagonals $\overline{QS}$ and $\overline{PR}$ intersect at T. Then $\angle RSP =$



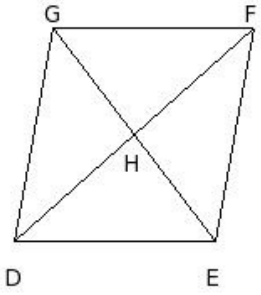
(i) $\angle PQR$ (ii) $\angle SPQ$ (iii) $\angle QRS$ (iv) $\angle PQT$ (v) $\angle RST$

18. In parallelogram KLMN, diagonals $\overline{LN}$ and $\overline{KM}$ intersect at O. Then MO =



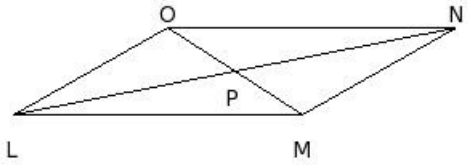
(i) NK (ii) KO (iii) NO (iv) LO (v) LM

19. In parallelogram DEFG, diagonals $\overline{EG}$ and $\overline{DF}$ intersect at H. Then DH =



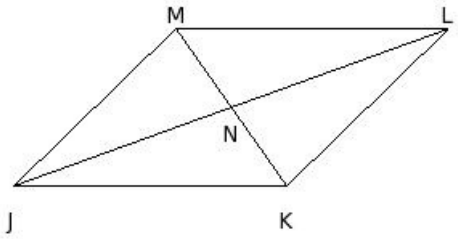
(i) GD (ii) GH (iii) EF (iv) EH (v) FH

20. In parallelogram LMNO, diagonals $\overline{MO}$ and $\overline{LN}$ intersect at P. Then OP =



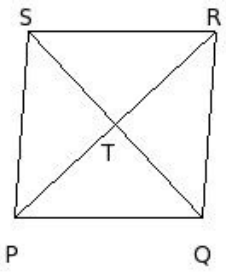
(i) NP (ii) LP (iii) MN (iv) OL (v) MP

21. In parallelogram JKLM, diagonals $\overline{KM}$ and $\overline{JL}$ intersect at N. Then KN =



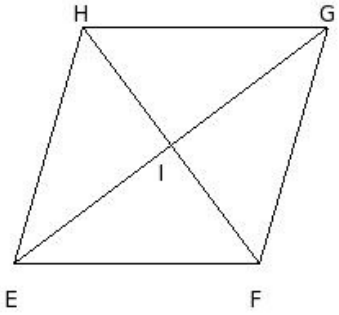
(i) JN (ii) MN (iii) LN (iv) KL (v) MJ

22. In rhombus PQRS, diagonals $\overline{PR}$ and $\overline{QS}$ intersect at T. Then $\overline{PQ} \parallel$



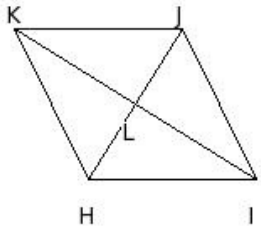
(i) $\overline{RS}$ (ii) $\overline{SP}$ (iii) $\overline{QS}$ (iv) $\overline{QR}$

23. In rhombus EFGH, diagonals $\overline{EG}$ and $\overline{FH}$ intersect at I. Then $\overline{GH} \parallel$



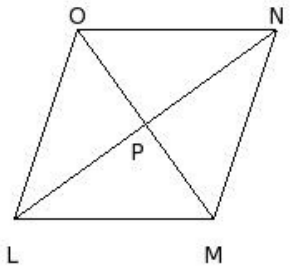
(i) $\overline{FH}$ (ii) $\overline{HE}$ (iii) $\overline{FG}$ (iv) $\overline{EF}$

24. In rhombus HIJK, diagonals $\overline{HJ}$ and $\overline{IK}$ intersect at L. Then $\overline{KH} \parallel$



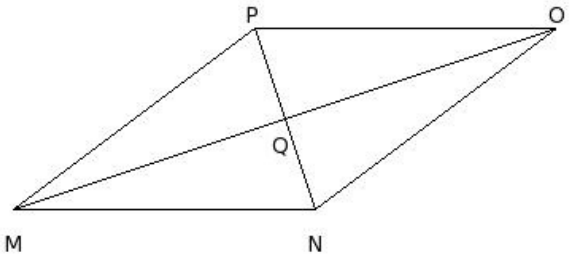
(i) $\overline{IJ}$ (ii) $\overline{HI}$ (iii) $\overline{IK}$ (iv) $\overline{JK}$

25. In rhombus LMNO, diagonals $\overline{LN}$ and $\overline{MO}$ intersect at P. Then $\overline{MN} \parallel$



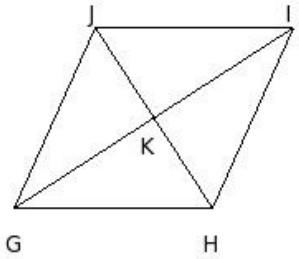
(i) $\overline{LM}$ (ii) $\overline{MO}$ (iii) $\overline{NO}$ (iv) $\overline{OL}$

26. In rhombus MNOP, diagonals $\overline{MO}$ and $\overline{NP}$ intersect at Q. Then $MN \neq$



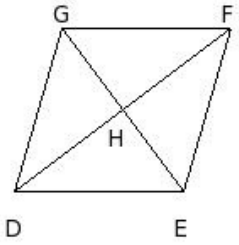
(i) NP (ii) PM (iii) NO (iv) OP

27. In rhombus GHIJ, diagonals $\overline{GI}$ and $\overline{HJ}$ intersect at K. Then $IJ \neq$



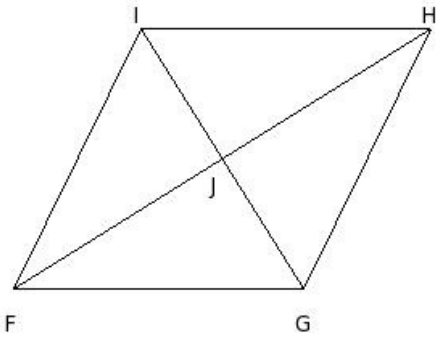
(i) HJ (ii) JG (iii) GH (iv) HI

28. In rhombus DEFG, diagonals $\overline{DF}$ and $\overline{EG}$ intersect at H. Then GD ≠



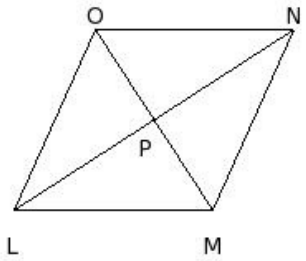
(i) FG (ii) DE (iii) EG (iv) EF

29. In rhombus FGHI, diagonals $\overline{FH}$ and $\overline{GI}$ intersect at J. Then GH ≠



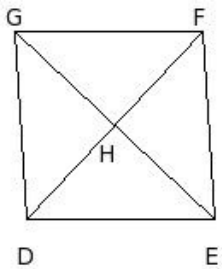
(i) FG (ii) GI (iii) HI (iv) IF

30. In rhombus LMNO, diagonals $\overline{LN}$ and $\overline{MO}$ intersect at P. Then △OLM ≅



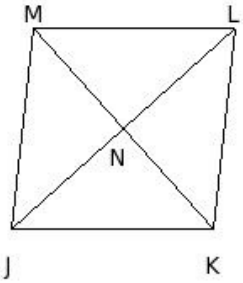
(i) △LMN (ii) △PLM (iii) △MNO (iv) △NOL

31. In rhombus DEFG, diagonals $\overline{DF}$ and $\overline{EG}$ intersect at H. Then △EFG ≅



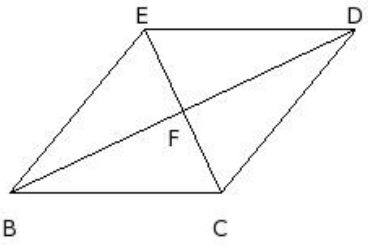
(i) △FGD (ii) △GDE (iii) △HDE (iv) △DEF

32. In rhombus JKLM, diagonals $\overline{JL}$ and $\overline{KM}$ intersect at N. Then $\triangle LMJ \cong$



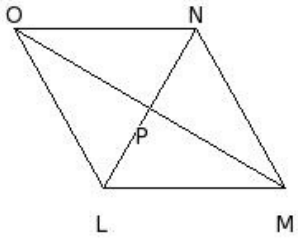
(i) $\triangle JKL$ (ii) $\triangle MJK$ (iii) $\triangle KLM$ (iv) $\triangle NJK$

33. In rhombus BCDE, diagonals $\overline{BD}$ and $\overline{CE}$ intersect at F. Then $\triangle BCD \cong$



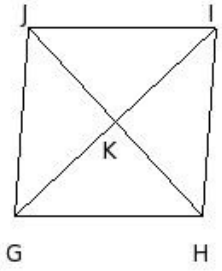
(i) $\triangle DEB$ (ii) $\triangle CDE$ (iii) $\triangle FBC$ (iv) $\triangle EBC$

34. In rhombus LMNO, diagonals $\overline{LN}$ and $\overline{MO}$ intersect at P. Then $\triangle PLM \ncong$



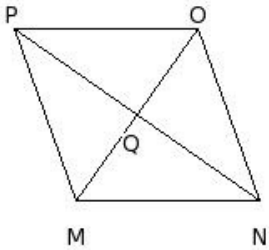
(i) $\triangle PNM$ (ii) $\triangle PLO$ (iii) $\triangle PNO$ (iv) $\triangle OLM$

35. In rhombus GHIJ, diagonals $\overline{GI}$ and $\overline{HJ}$ intersect at K. Then $\triangle KIH \ncong$



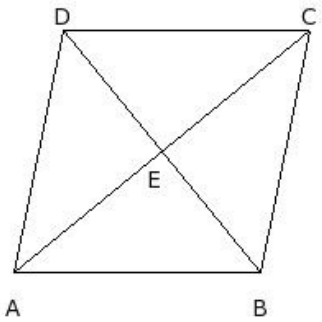
(i) $\triangle KGH$ (ii) $\triangle KGJ$ (iii) $\triangle JGH$ (iv) $\triangle KIJ$

36. In rhombus MNOP, diagonals $\overline{MO}$ and $\overline{NP}$ intersect at Q. Then $\triangle QOP \ncong$



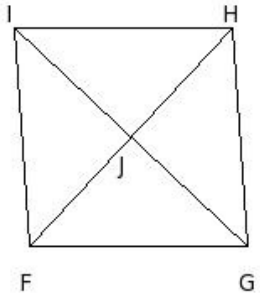
(i) $\triangle QON$ (ii) $\triangle QMP$ (iii) $\triangle PMN$ (iv) $\triangle QMN$

37. In rhombus ABCD, diagonals $\overline{AC}$ and $\overline{BD}$ intersect at E. Then $\triangle EAD \ncong$



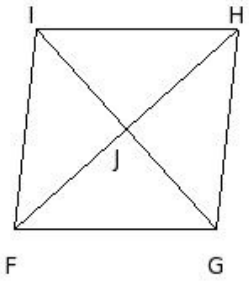
(i) $\triangle ECD$ (ii) $\triangle ECB$ (iii) $\triangle EAB$ (iv) $\triangle DAB$

38. In rhombus FGHI, diagonals $\overline{FH}$ and $\overline{GI}$ intersect at J. Then $\angle IFG =$



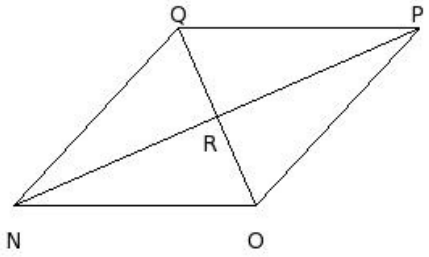
(i) $\angle FGJ$ (ii) $\angle FGH$ (iii) $\angle GHI$ (iv) $\angle HIF$

39. In rhombus FGHI, diagonals $\overline{FH}$ and $\overline{GI}$ intersect at J. Then $\angle GHI =$



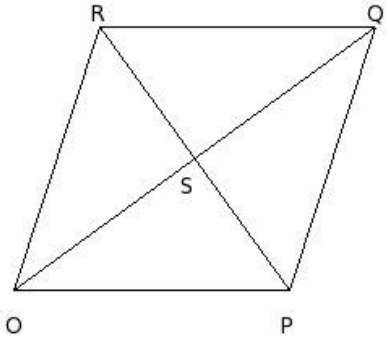
(i) $\angle FGJ$ (ii) $\angle IFG$ (iii) $\angle FGH$ (iv) $\angle HIF$

40. In rhombus NOPQ, diagonals $\overline{NP}$ and $\overline{OQ}$ intersect at R. Then $\angle NOP =$



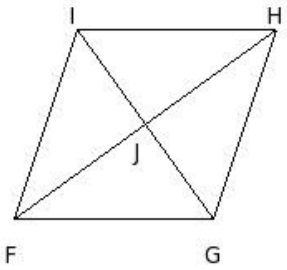
(i) $\angle NOR$ (ii) $\angle OPQ$ (iii) $\angle PQN$ (iv) $\angle QNO$

41. In rhombus OPQR, diagonals $\overline{OQ}$ and $\overline{PR}$ intersect at S. Then $\angle QRO =$



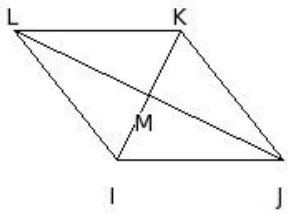
(i) $\angle OPQ$ (ii) $\angle ROP$ (iii) $\angle OPS$ (iv) $\angle PQR$

42. In rhombus FGHI, diagonals $\overline{FH}$ and $\overline{GI}$ intersect at J. Then $\angle GJF \neq$



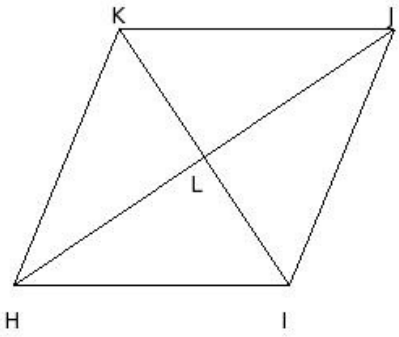
(i) $\angle FJI$ (ii) $\angle IFG$ (iii) $\angle HJG$ (iv) $\angle IJH$

43. In rhombus IJKL, diagonals $\overline{IK}$ and $\overline{JL}$ intersect at M. Then $\angle LMK \neq$



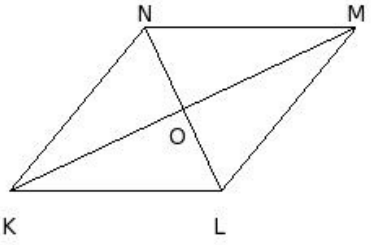
(i) $\angle JMI$ (ii) $\angle IML$ (iii) $\angle LIJ$ (iv) $\angle KMJ$

44. In rhombus HIJK, diagonals $\overline{HJ}$ and $\overline{IK}$ intersect at L. Then $\angle HLK \neq$



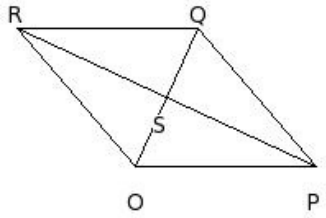
(i) $\angle KHI$ (ii) $\angle ILH$ (iii) $\angle KLJ$ (iv) $\angle JLI$

45. In rhombus KLMN, diagonals $\overline{KM}$ and $\overline{LN}$ intersect at O. Then $\angle MOL \neq$



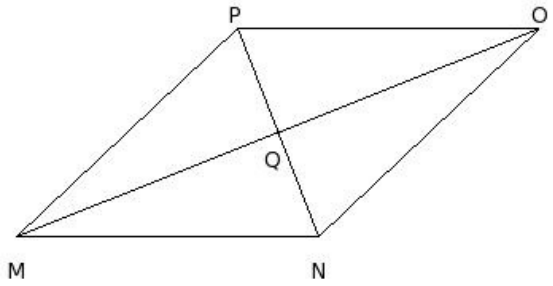
(i) $\angle KON$ (ii) $\angle LOK$ (iii) $\angle NOM$ (iv) $\angle NKL$

46. In rhombus OPQR, diagonals $\overline{OQ}$ and $\overline{PR}$ intersect at S. Then $\angle SOP \neq$



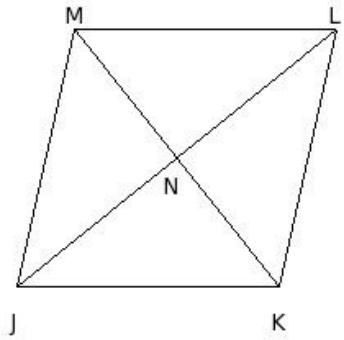
(i) $\angle ROS$ (ii) $\angle SQR$ (iii) $\angle OSR$ (iv) $\angle PQS$

47. In rhombus MNOP, diagonals $\overline{MO}$ and $\overline{NP}$ intersect at Q. Then $\angle QOP \neq$



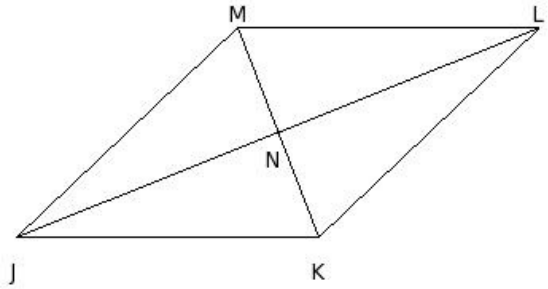
(i) $\angle NOQ$ (ii) $\angle PMQ$ (iii) $\angle MQP$ (iv) $\angle QMN$

48. In rhombus JKLM, diagonals $\overline{JL}$ and $\overline{KM}$ intersect at N. Then $\angle MJN \neq$



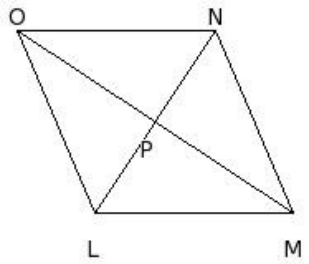
(i) $\angle NJK$ (ii) $\angle JNM$ (iii) $\angle NLM$ (iv) $\angle KLN$

49. In rhombus JKLM, diagonals $\overline{JL}$ and $\overline{KM}$ intersect at N. Then $\angle KLN \neq$



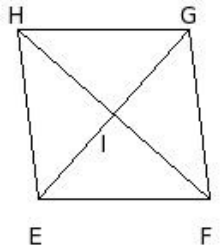
(i) $\angle NJK$ (ii) $\angle MJN$ (iii) $\angle JNM$ (iv) $\angle NLM$

50. In rhombus LMNO, diagonals $\overline{LN}$ and $\overline{MO}$ intersect at P. Then $\angle POL \neq$



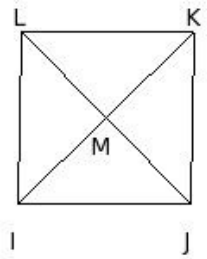
(i) $\angle NOP$ (ii) $\angle OPN$ (iii) $\angle PMN$ (iv) $\angle LMP$

51. In rhombus EFGH, diagonals $\overline{EG}$ and $\overline{FH}$ intersect at I. Then $\angle IFG \neq$



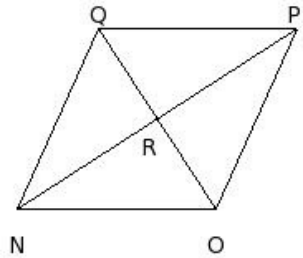
(i) $\angle EFI$ (ii) $\angle IHE$ (iii) $\angle HIG$ (iv) $\angle GHI$

52. In rhombus IJKL, diagonals $\overline{IK}$ and $\overline{JL}$ intersect at M. Then $\angle IJM \neq$



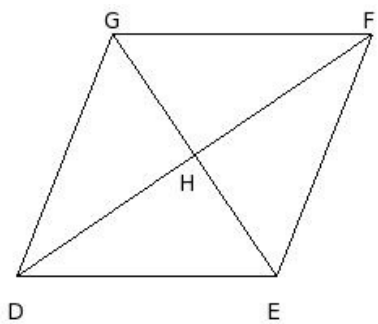
(i) $\angle LMK$ (ii) $\angle MLI$ (iii) $\angle MJK$ (iv) $\angle KLM$

53. In rhombus NOPQ, diagonals $\overline{NP}$ and $\overline{OQ}$ intersect at R. Then $\angle PQR \neq$



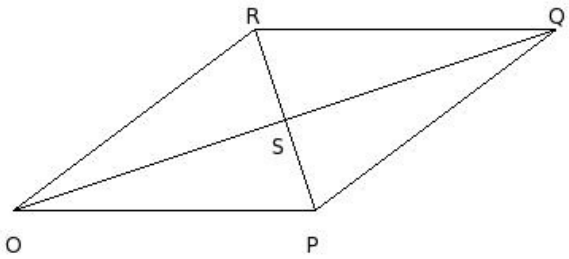
(i) $\angle NOR$ (ii) $\angle RQN$ (iii) $\angle QRP$ (iv) $\angle ROP$

54. In rhombus DEFG, diagonals $\overline{DF}$ and $\overline{EG}$ intersect at H. Then GH =



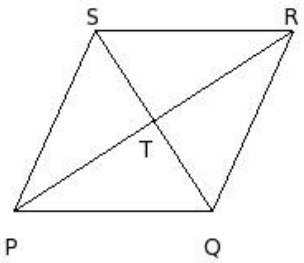
(i) GD (ii) DH (iii) EH (iv) FH

55. In rhombus OPQR, diagonals $\overline{OQ}$ and $\overline{PR}$ intersect at S. Then PS =



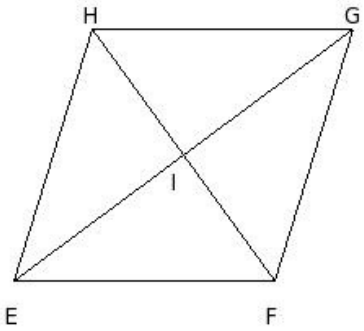
(i) QS (ii) RS (iii) OS (iv) RO

56. In rhombus PQRS, diagonals $\overline{PR}$ and $\overline{QS}$ intersect at T. Then PT =



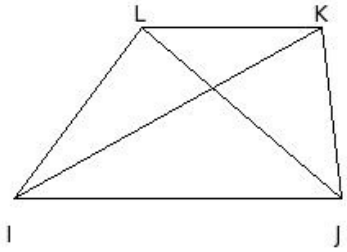
(i) RT (ii) QT (iii) ST (iv) SP

57. In rhombus EFGH, diagonals $\overline{EG}$ and $\overline{FH}$ intersect at I. Then GI =



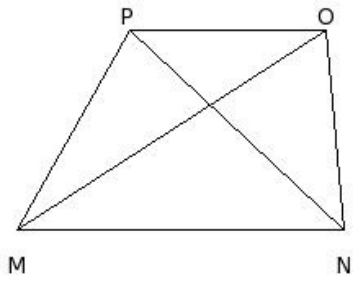
(i) HI (ii) FI (iii) EI (iv) HE

58. In trapezium IJKL, $\overline{IK}$ and $\overline{JL}$ are diagonals. Then $\overline{IJ}$ ∥



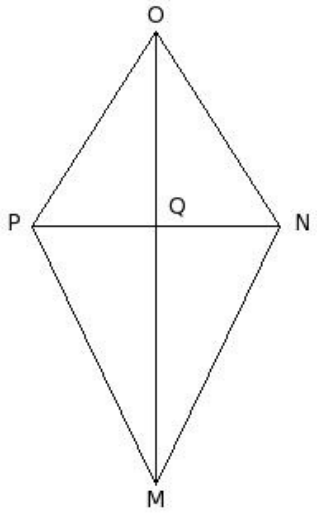
(i) $\overline{LI}$ (ii) $\overline{KL}$ (iii) $\overline{JK}$ (iv) $\overline{JL}$ (v) $\overline{IK}$

59. In trapezium MNOP, $\overline{MO}$ and $\overline{NP}$ are diagonals. Then $\overline{OP}$ ∥



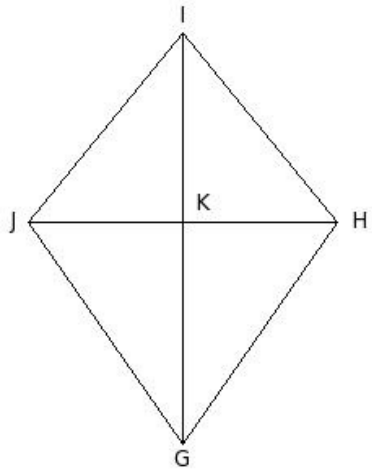
(i) $\overline{MN}$ (ii) $\overline{NO}$ (iii) $\overline{PM}$ (iv) $\overline{NP}$ (v) $\overline{MO}$

60. In kite MNOP, $\overline{MO}$ and $\overline{NP}$ are diagonals. Then MN =



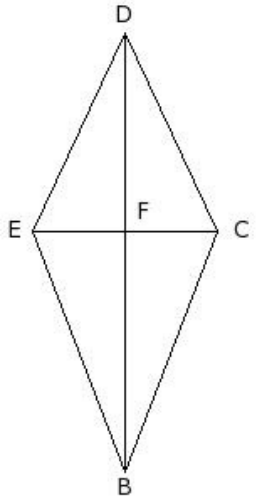
(i) NP (ii) OP (iii) MO (iv) PM (v) NO

61. In kite GHIJ, $\overline{GI}$ and $\overline{HJ}$ are diagonals. Then JG =



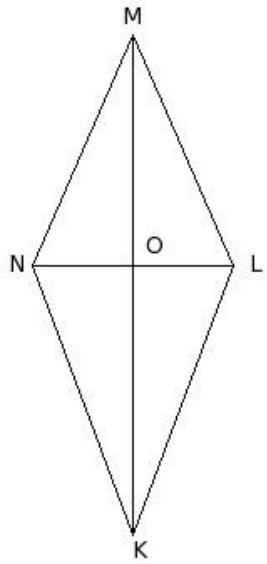
(i) GH (ii) HI (iii) HJ (iv) GI (v) IJ

62. In kite BCDE, $\overline{BD}$ and $\overline{CE}$ are diagonals. Then CD =



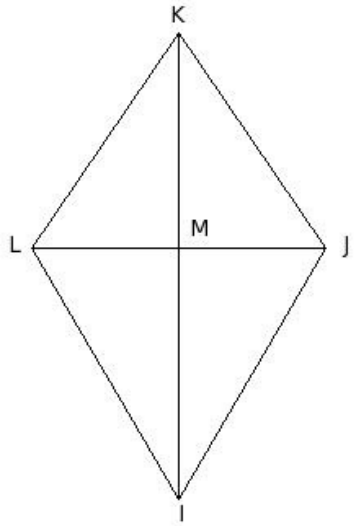
(i) DE (ii) BD (iii) BC (iv) CE (v) EB

63. In kite KLMN, $\overline{KM}$ and $\overline{LN}$ are diagonals. Then MN =



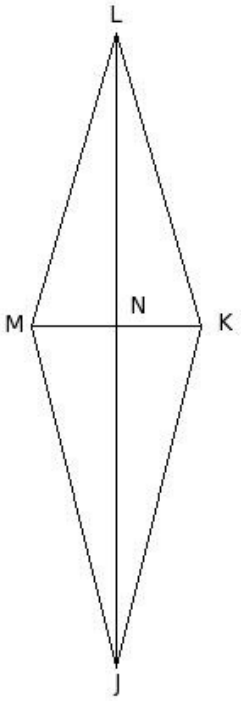
(i) LN (ii) NK (iii) KM (iv) LM (v) KL

64. In kite IJKL, $\overline{IK}$ and $\overline{JL}$ are diagonals. Then ∠IJK =



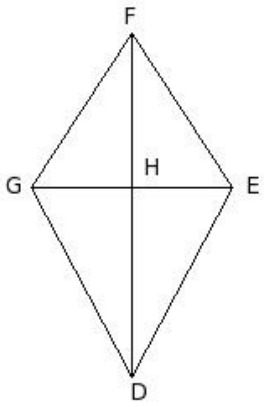
(i) ∠IML (ii) ∠KLJ (iii) ∠ILJ (iv) ∠IMJ (v) ∠KLI

65. In kite JKLM, $\overline{JL}$ and $\overline{KM}$ are diagonals. Then $\angle LMJ =$



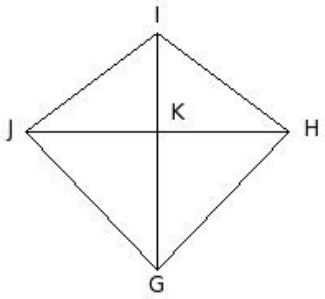
(i) $\angle JNK$ (ii) $\angle LMK$ (iii) $\angle JNM$ (iv) $\angle JMK$ (v) $\angle JKL$

66. In kite DEFG, $\overline{DF}$ and $\overline{EG}$ are diagonals. Then $\angle DHG =$



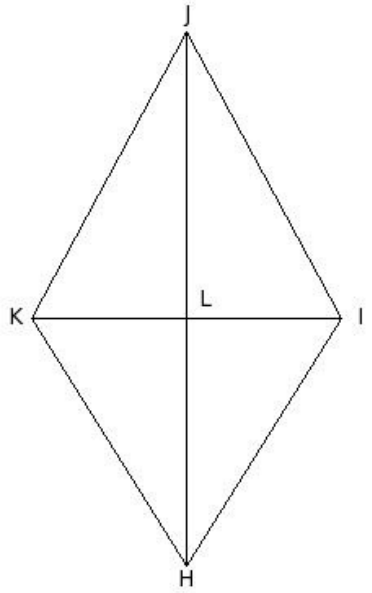
(i) $\angle FGE$ (ii) $\angle FGD$ (iii) $\angle DGE$ (iv) $\angle DHE$ (v) $\angle DEF$

67. In kite GHIJ, $\overline{GI}$ and $\overline{HJ}$ are diagonals. Then $\angle GKH =$



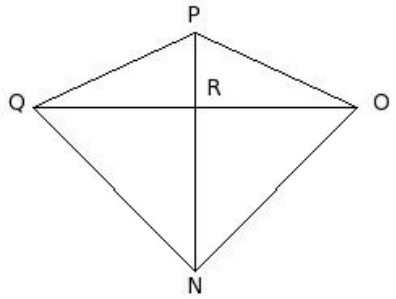
(i) $\angle GHI$ (ii) $\angle IJH$ (iii) $\angle GKJ$ (iv) $\angle GJH$ (v) $\angle IJG$

68. In kite HIJK, $\overline{HJ}$ and $\overline{IK}$ are diagonals. Then $\triangle JKH \cong$



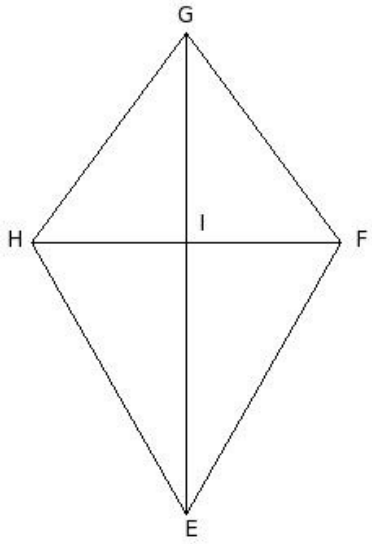
(i) $\triangle LJI$ (ii) $\triangle LKH$ (iii) $\triangle KIH$ (iv) $\triangle JIH$ (v) $\triangle KIJ$

69. In kite NOPQ, $\overline{NP}$ and $\overline{OQ}$ are diagonals. Then $\triangle PON \cong$



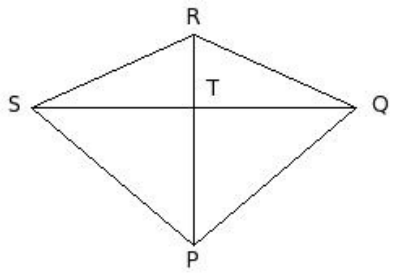
(i) $\triangle QON$ (ii) $\triangle QOP$ (iii) $\triangle PQN$ (iv) $\triangle RQN$ (v) $\triangle RPO$

70. In kite EFGH, $\overline{EG}$ and $\overline{FH}$ are diagonals. Then $\triangle IHE \cong$



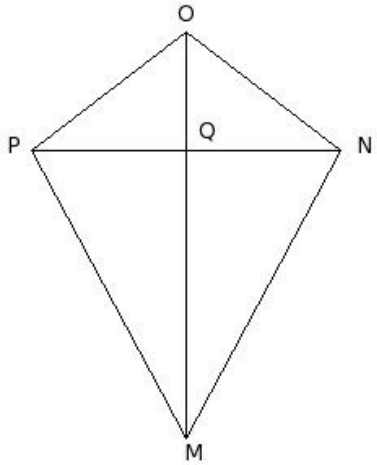
(i) $\triangle HFE$ (ii) $\triangle HFG$ (iii) $\triangle IGF$ (iv) $\triangle IGH$ (v) $\triangle IFE$

71. In kite PQRS, $\overline{PR}$ and $\overline{QS}$ are diagonals. Then $\triangle TQP \cong$



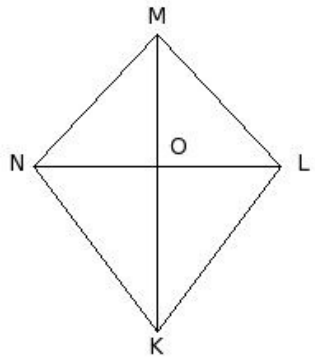
(i) $\triangle TRQ$ (ii) $\triangle SQR$ (iii) $\triangle TSP$ (iv) $\triangle TRS$ (v) $\triangle SQP$

72. In kite MNOP, $\overline{MO}$ and $\overline{NP}$ are diagonals. Then $\triangle QOP \cong$



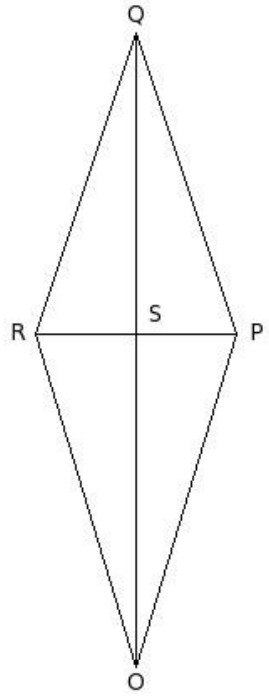
(i) $\triangle QPM$ (ii) $\triangle PNO$ (iii) $\triangle QNM$ (iv) $\triangle PNM$ (v) $\triangle QON$

73. In kite KLMN, $\overline{KM}$ and $\overline{LN}$ are diagonals. Then $\triangle OML \cong$



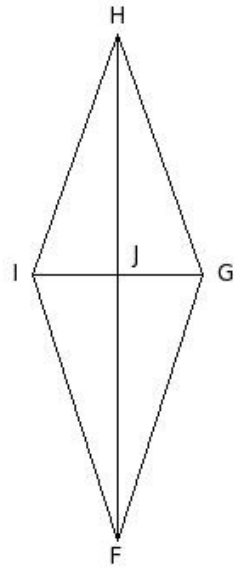
(i) $\triangle NLM$ (ii) $\triangle OMN$ (iii) $\triangle NLK$ (iv) $\triangle OLK$ (v) $\triangle ONK$

74. In kite OPQR, $\overline{OQ}$ and $\overline{PR}$ are diagonals. Then $\angle ROS =$



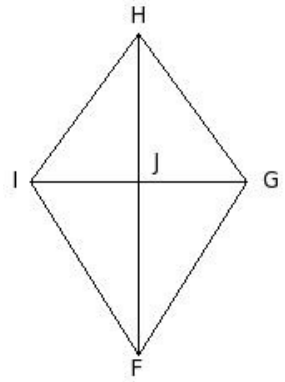
(i) $\angle RSQ$ (ii) $\angle POS$ (iii) $\angle OSR$ (iv) $\angle SQP$ (v) $\angle SQR$

75. In kite FGHI, $\overline{FH}$ and $\overline{GI}$ are diagonals. Then $\angle GFJ =$



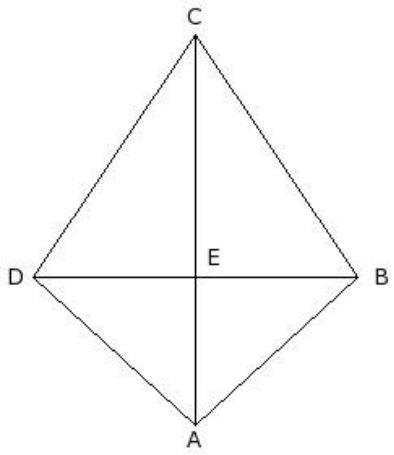
(i) $\angle FJI$ (ii) $\angle JHI$ (iii) $\angle JHG$ (iv) $\angle IJH$ (v) $\angle IFJ$

76. In kite FGHI, $\overline{FH}$ and $\overline{GI}$ are diagonals. Then $\angle JHI =$



(i) $\angle FJI$ (ii) $\angle IJH$ (iii) $\angle IFJ$ (iv) $\angle GFJ$ (v) $\angle JHG$

77. In kite $ABCD$, $\overline{AC}$ and $\overline{BD}$ are diagonals. Then $\angle ECB =$



(i) $\angle BAE$ (ii) $\angle DEC$ (iii) $\angle ECD$ (iv) $\angle DAE$ (v) $\angle AED$

Assignment Key

1) (iv)	2) (i)	3) (iii)	4) (v)	5) (v)	6) (iii)
7) (i)	8) (iv)	9) (ii)	10) (iv)	11) (iv)	12) (ii)
13) (iii)	14) (v)	15) (iv)	16) (i)	17) (i)	18) (ii)
19) (v)	20) (v)	21) (ii)	22) (i)	23) (iv)	24) (i)
25) (iv)	26) (i)	27) (i)	28) (iii)	29) (ii)	30) (iii)
31) (ii)	32) (i)	33) (i)	34) (iv)	35) (iii)	36) (iii)
37) (iv)	38) (iii)	39) (ii)	40) (iii)	41) (i)	42) (ii)
43) (iii)	44) (i)	45) (iv)	46) (iii)	47) (iii)	48) (ii)
49) (iii)	50) (ii)	51) (iii)	52) (i)	53) (iii)	54) (iii)
55) (ii)	56) (i)	57) (iii)	58) (ii)	59) (i)	60) (iv)
61) (i)	62) (i)	63) (iv)	64) (v)	65) (v)	66) (iv)
67) (iii)	68) (iv)	69) (iii)	70) (v)	71) (iii)	72) (v)
73) (ii)	74) (ii)	75) (v)	76) (v)	77) (iii)	