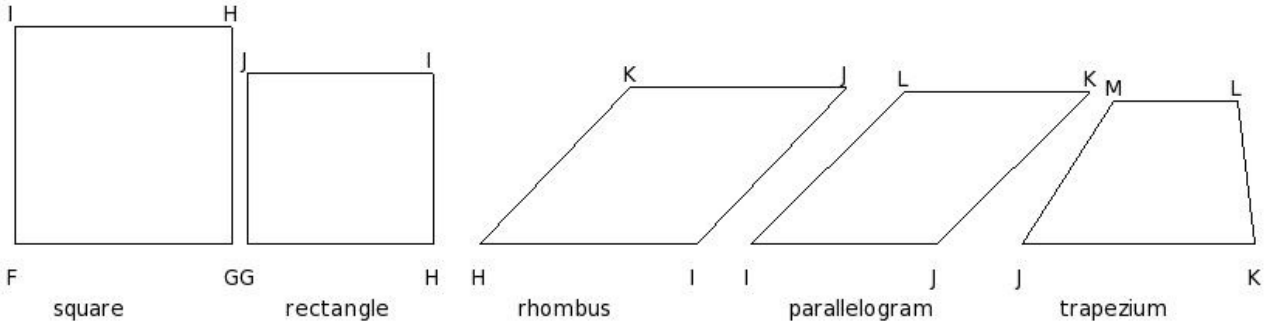
EduSahara™ Assignment

Name : Quadrilateral Properties Using Diagrams

Chapter : Quadrilaterals

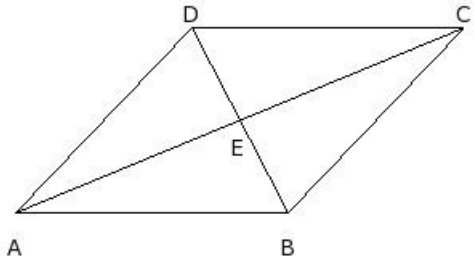
Grade : SSC Grade IX

1. Which of the following figures is a regular quadrilateral?



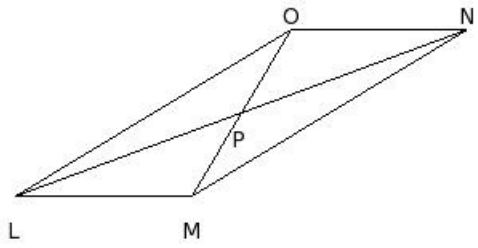
(i) parallelogram (ii) rhombus (iii) rectangle (iv) square (v) trapezium

2. In parallelogram ABCD, diagonals $\overline{BD}$ and $\overline{AC}$ intersect at E. Then $\overline{AB}$ ∥



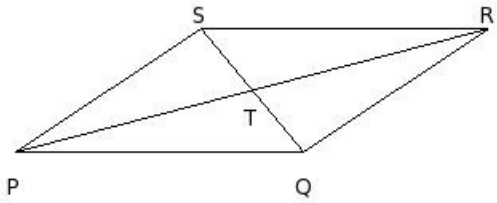
(i) $\overline{DA}$ (ii) $\overline{AC}$ (iii) $\overline{BC}$ (iv) $\overline{BD}$ (v) $\overline{CD}$

3. In parallelogram LMNO, diagonals $\overline{MO}$ and $\overline{LN}$ intersect at P. Then $\overline{NO}$ ∥



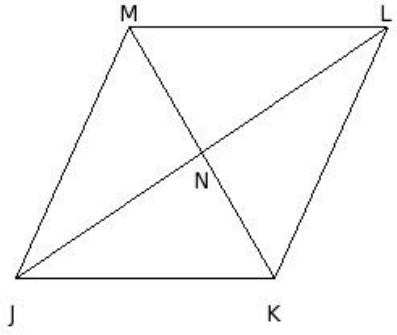
(i) $\overline{MO}$ (ii) $\overline{LN}$ (iii) $\overline{MN}$ (iv) $\overline{OL}$ (v) $\overline{LM}$

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



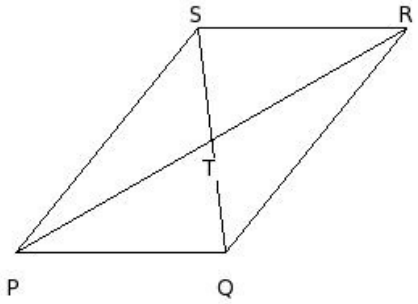
(i) $\overline{QR}$ (ii) $\overline{RS}$ (iii) $\overline{QS}$ (iv) $\overline{PQ}$ (v) $\overline{PR}$

5. In parallelogram JKLM, diagonals $\overline{KM}$ and $\overline{JL}$ intersect at N. Then $\overline{KL}$ ∥



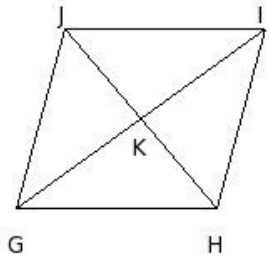
(i) $\overline{KM}$ (ii) $\overline{JK}$ (iii) $\overline{MJ}$ (iv) $\overline{LM}$ (v) $\overline{JL}$

6. In parallelogram PQRS, diagonals $\overline{QS}$ and $\overline{PR}$ intersect at T. Then PQ =



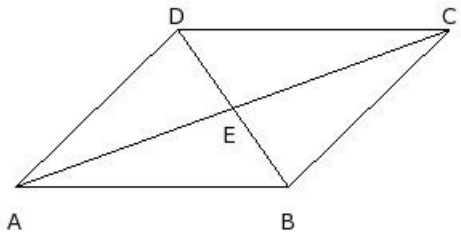
(i) RS (ii) QR (iii) SP (iv) PR (v) QS

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



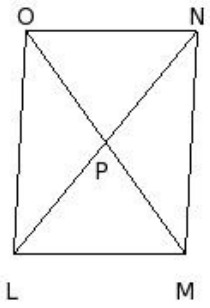
(i) HJ (ii) HI (iii) GI (iv) GH (v) JG

8. In parallelogram ABCD, diagonals $\overline{BD}$ and $\overline{AC}$ intersect at E. Then DA =



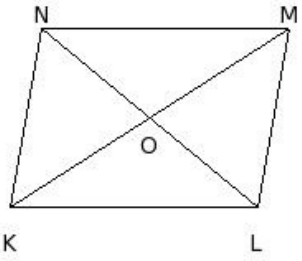
(i) BD (ii) AC (iii) BC (iv) CD (v) AB

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



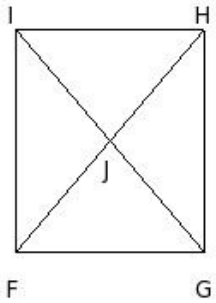
(i) OL (ii) LN (iii) MO (iv) LM (v) NO

10. In parallelogram KLMN, diagonals $\overline{LN}$ and $\overline{KM}$ intersect at O. Then $\triangle NKL \cong$



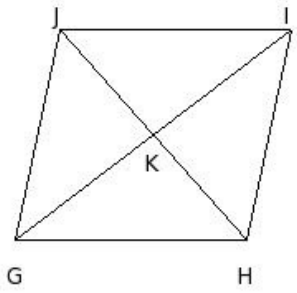
(i) $\triangle KLM$ (ii) $\triangle MNO$ (iii) $\triangle MNK$ (iv) $\triangle KLO$ (v) $\triangle LMN$

11. In parallelogram FGHI, diagonals $\overline{GI}$ and $\overline{FH}$ intersect at J. Then $\triangle GHI \cong$



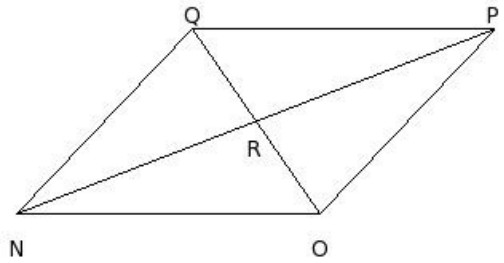
(i) $\triangle IFG$ (ii) $\triangle HIF$ (iii) $\triangle FGH$ (iv) $\triangle FGJ$ (v) $\triangle HIJ$

12. In parallelogram GHIJ, diagonals $\overline{HJ}$ and $\overline{GI}$ intersect at K. Then $\triangle IJG \cong$



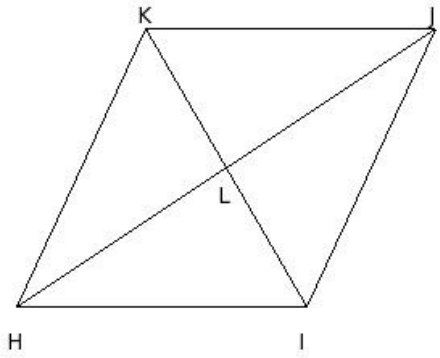
(i) $\triangle IJK$ (ii) $\triangle GHI$ (iii) $\triangle HIJ$ (iv) $\triangle JGH$ (v) $\triangle GHK$

13. In parallelogram NOPQ, diagonals $\overline{OQ}$ and $\overline{NP}$ intersect at R. Then $\triangle NOP \cong$



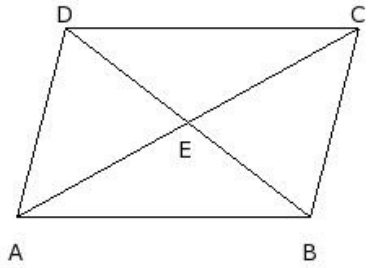
(i) $\triangle PQN$ (ii) $\triangle NOR$ (iii) $\triangle QNO$ (iv) $\triangle PQR$ (v) $\triangle OPQ$

14. In parallelogram HIJK, diagonals $\overline{IK}$ and $\overline{HJ}$ intersect at L. Then $\angle KHI$ =



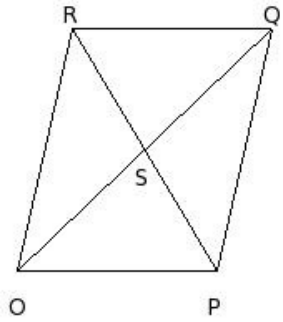
(i) $\angle HIJ$ (ii) $\angle JKH$ (iii) $\angle JKL$ (iv) $\angle HIL$ (v) $\angle IJK$

15. In parallelogram ABCD, diagonals $\overline{BD}$ and $\overline{AC}$ intersect at E. Then $\angle BCD$ =



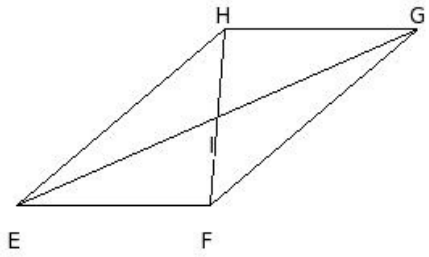
(i) $\angle DAB$ (ii) $\angle CDA$ (iii) $\angle ABE$ (iv) $\angle CDE$ (v) $\angle ABC$

16. In parallelogram OPQR, diagonals $\overline{PR}$ and $\overline{OQ}$ intersect at S. Then $\angle OPQ$ =



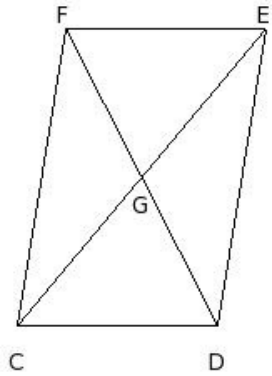
(i) $\angle PQR$ (ii) $\angle QRS$ (iii) $\angle ROP$ (iv) $\angle QRO$ (v) $\angle OPS$

17. In parallelogram EFGH, diagonals $\overline{FH}$ and $\overline{EG}$ intersect at I. Then $\angle GHE$ =



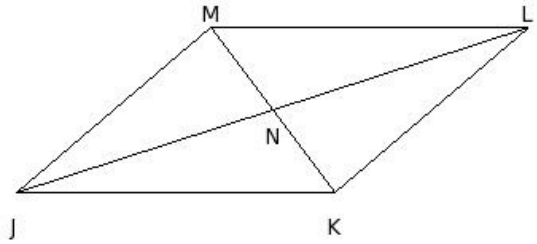
(i) $\angle FGH$ (ii) $\angle GHI$ (iii) $\angle EFI$ (iv) $\angle EFG$ (v) $\angle HEF$

18. In parallelogram CDEF, diagonals $\overline{DF}$ and $\overline{CE}$ intersect at G. Then EG =



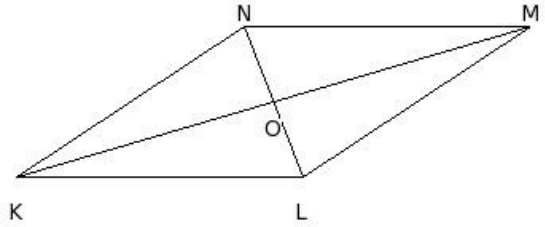
(i) DE (ii) FC (iii) DG (iv) CG (v) FG

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



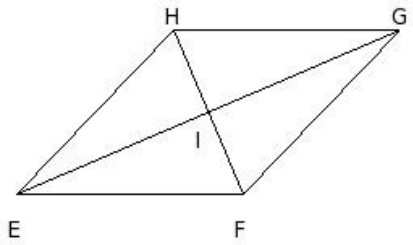
(i) MN (ii) KL (iii) KN (iv) MJ (v) LN

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



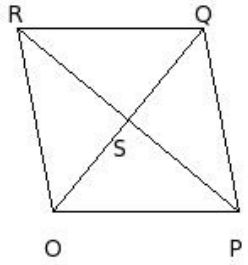
(i) KO (ii) LM (iii) NK (iv) MO (v) NO

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



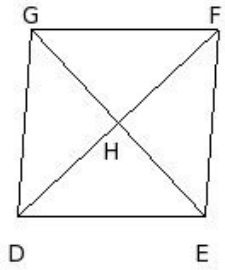
(i) $\overline{HE}$ (ii) $\overline{FH}$ (iii) $\overline{GH}$ (iv) $\overline{FG}$

22. In rhombus OPQR, diagonals $\overline{OQ}$ and $\overline{PR}$ intersect at S. Then $\overline{QR} \parallel$



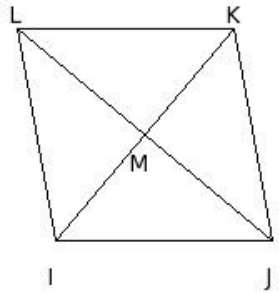
(i) $\overline{OP}$ (ii) $\overline{PR}$ (iii) $\overline{PQ}$ (iv) $\overline{RO}$

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



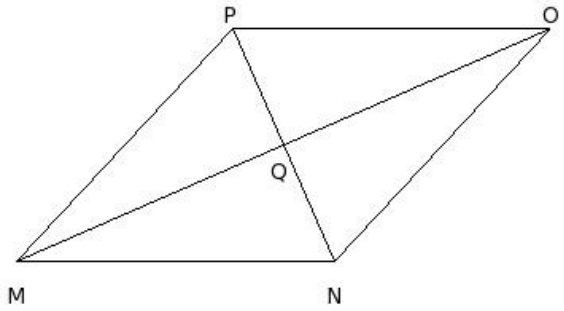
(i) $\overline{FG}$ (ii) $\overline{EF}$ (iii) $\overline{DE}$ (iv) $\overline{EG}$

24. In rhombus IJKL, diagonals $\overline{IK}$ and $\overline{JL}$ intersect at M. Then $\overline{JK} \parallel$



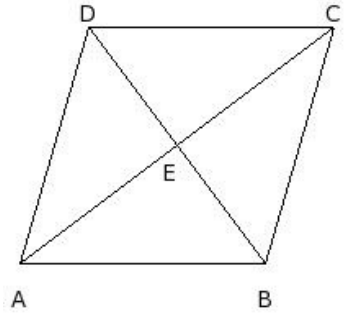
(i) $\overline{KL}$ (ii) $\overline{LI}$ (iii) $\overline{IJ}$ (iv) $\overline{JL}$

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



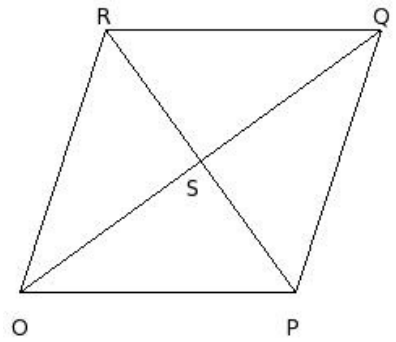
(i) NO (ii) PM (iii) OP (iv) NP

26. In rhombus ABCD, diagonals $\overline{AC}$ and $\overline{BD}$ intersect at E. Then $CD \neq$



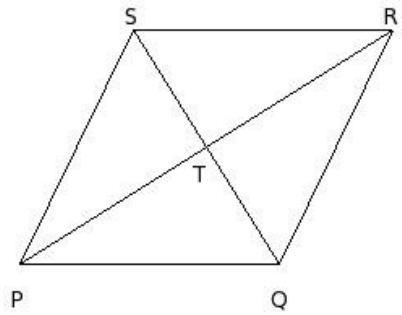
(i) BD (ii) BC (iii) AB (iv) DA

27. In rhombus OPQR, diagonals $\overline{OQ}$ and $\overline{PR}$ intersect at S. Then $RO \neq$



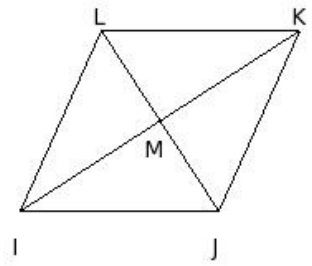
(i) PQ (ii) QR (iii) PR (iv) OP

28. In rhombus PQRS, diagonals $\overline{PR}$ and $\overline{QS}$ intersect at T. Then $QR \neq$



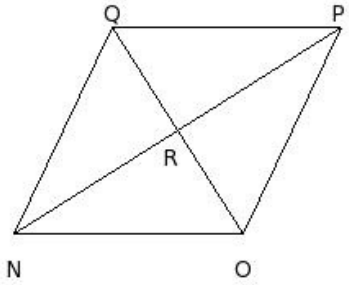
(i) SP (ii) QS (iii) PQ (iv) RS

29. In rhombus IJKL, diagonals $\overline{IK}$ and $\overline{JL}$ intersect at M. Then $\triangle LIJ \cong$



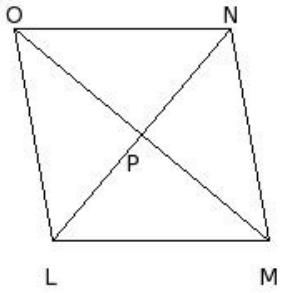
(i) $\triangle IJK$ (ii) $\triangle KLI$ (iii) $\triangle MIJ$ (iv) $\triangle JKL$

30. In rhombus NOPQ, diagonals $\overline{NP}$ and $\overline{OQ}$ intersect at R. Then $\triangle OPQ \cong$



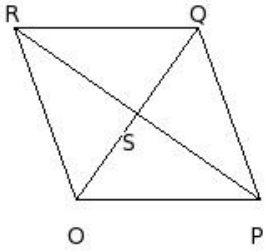
(i) $\triangle NOP$ (ii) $\triangle RNO$ (iii) $\triangle QNO$ (iv) $\triangle PQN$

31. In rhombus LMNO, diagonals $\overline{LN}$ and $\overline{MO}$ intersect at P. Then $\triangle NOL \cong$



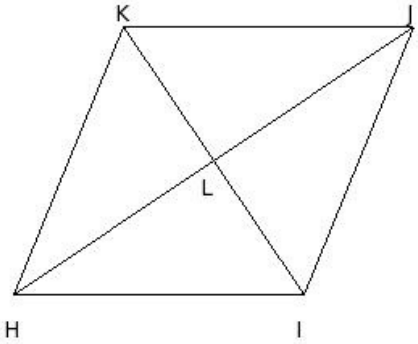
(i) $\triangle PLM$ (ii) $\triangle MNO$ (iii) $\triangle OLM$ (iv) $\triangle LMN$

32. In rhombus OPQR, diagonals $\overline{OQ}$ and $\overline{PR}$ intersect at S. Then $\triangle OPQ \cong$



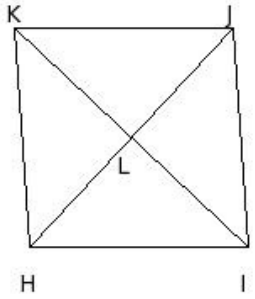
(i) $\triangle QRO$ (ii) $\triangle PQR$ (iii) $\triangle ROP$ (iv) $\triangle SOP$

33. In rhombus HIJK, diagonals $\overline{HJ}$ and $\overline{IK}$ intersect at L. Then $\triangle LHI \ncong$



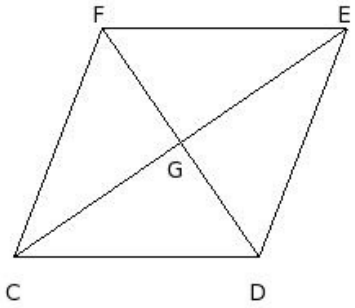
(i) $\triangle LJK$ (ii) $\triangle LJI$ (iii) $\triangle LHK$ (iv) $\triangle KHI$

34. In rhombus HIJK, diagonals $\overline{HJ}$ and $\overline{IK}$ intersect at L. Then $\triangle LJI \ncong$



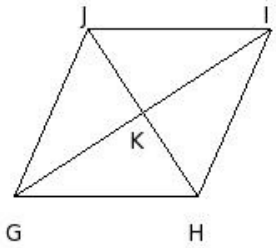
(i) $\triangle LHK$ (ii) $\triangle LJK$ (iii) $\triangle LHI$ (iv) $\triangle KHI$

35. In rhombus CDEF, diagonals $\overline{CE}$ and $\overline{DF}$ intersect at G. Then $\triangle GEF \ncong$



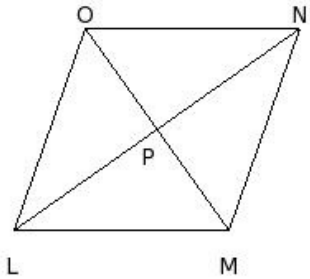
(i) $\triangle GCF$ (ii) $\triangle FCD$ (iii) $\triangle GCD$ (iv) $\triangle GED$

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



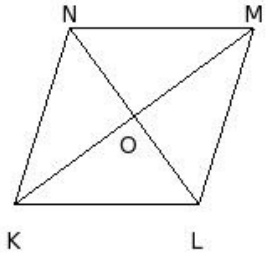
(i) $\triangle KGH$ (ii) $\triangle KIH$ (iii) $\triangle JGH$ (iv) $\triangle KIJ$

37. In rhombus LMNO, diagonals $\overline{LN}$ and $\overline{MO}$ intersect at P. Then $\angle OLM =$



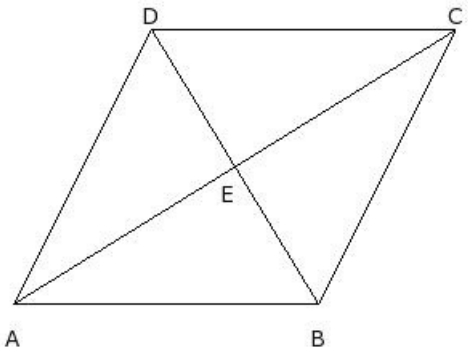
(i) $\angle MNO$ (ii) $\angle LMN$ (iii) $\angle NOL$ (iv) $\angle LMP$

38. In rhombus KLMN, diagonals $\overline{KM}$ and $\overline{LN}$ intersect at O. Then $\angle LMN =$



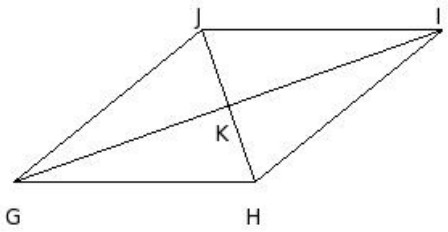
(i) $\angle KLO$ (ii) $\angle KLM$ (iii) $\angle NKL$ (iv) $\angle MNK$

39. In rhombus ABCD, diagonals $\overline{AC}$ and $\overline{BD}$ intersect at E. Then $\angle CDA =$



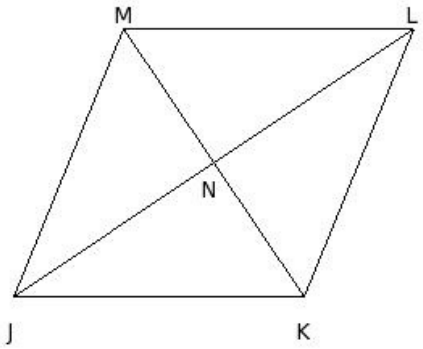
(i) $\angle ABC$ (ii) $\angle BCD$ (iii) $\angle DAB$ (iv) $\angle ABE$

40. In rhombus GHIJ, diagonals $\overline{GI}$ and $\overline{HJ}$ intersect at K. Then $\angle HKG \neq$



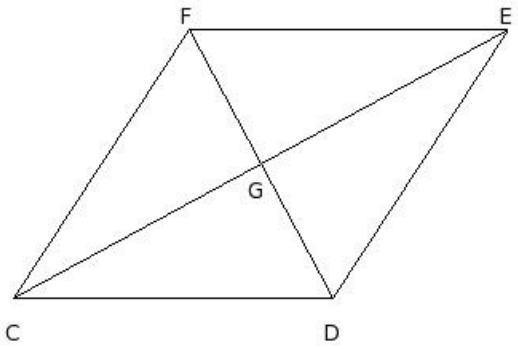
(i) $\angle JKI$ (ii) $\angle GKJ$ (iii) $\angle JGH$ (iv) $\angle IKH$

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



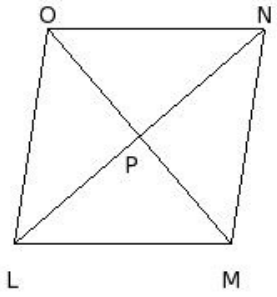
(i) $\angle KNJ$ (ii) $\angle JNM$ (iii) $\angle LNK$ (iv) $\angle MJK$

42. In rhombus CDEF, diagonals $\overline{CE}$ and $\overline{DF}$ intersect at G. Then $\angle CGF \neq$



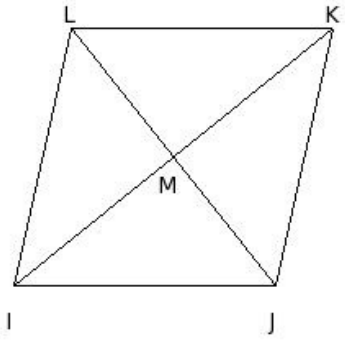
(i) $\angle DGC$ (ii) $\angle EGD$ (iii) $\angle FCD$ (iv) $\angle FGE$

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



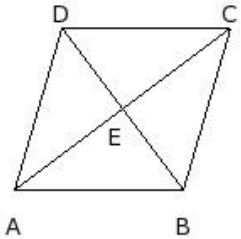
(i) $\angle MPL$ (ii) $\angle OPN$ (iii) $\angle LPO$ (iv) $\angle OLM$

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



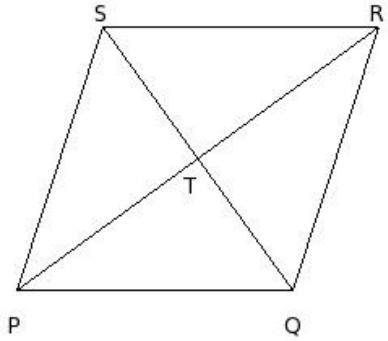
(i) $\angle LIM$ (ii) $\angle IML$ (iii) $\angle JKM$ (iv) $\angle MKL$

45. In rhombus ABCD, diagonals $\overline{AC}$ and $\overline{BD}$ intersect at E. Then $\angle ECD \neq$



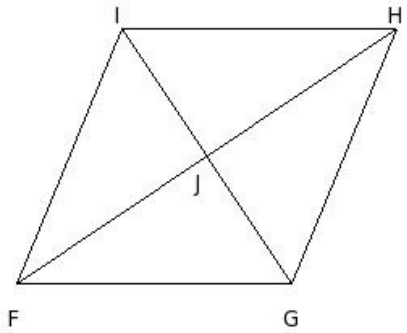
(i) $\angle AED$ (ii) $\angle EAB$ (iii) $\angle DAE$ (iv) $\angle BCE$

46. In rhombus PQRS, diagonals $\overline{PR}$ and $\overline{QS}$ intersect at T. Then $\angle SPT \neq$



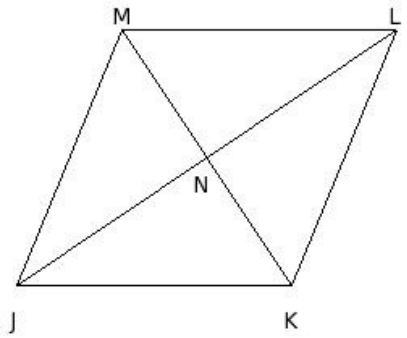
(i) $\angle TRS$ (ii) $\angle QRT$ (iii) $\angle PTS$ (iv) $\angle TPQ$

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



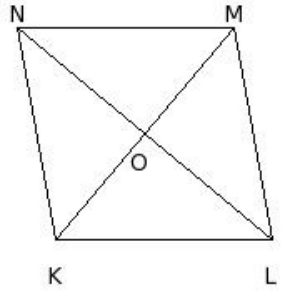
(i) $\angle JHI$ (ii) $\angle JFG$ (iii) $\angle FJI$ (iv) $\angle IFJ$

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



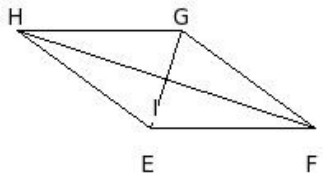
(i) $\angle MNL$ (ii) $\angle LMN$ (iii) $\angle NKL$ (iv) $\angle JKN$

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



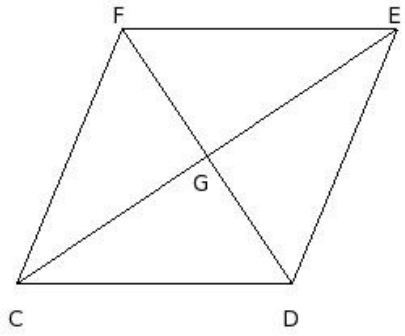
(i) $\angle NOM$ (ii) $\angle ONK$ (iii) $\angle MNO$ (iv) $\angle KLO$

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



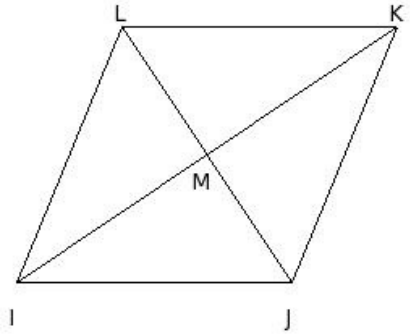
(i) $\angle IFG$ (ii) $\angle GHI$ (iii) $\angle IHE$ (iv) $\angle HIG$

51. In rhombus CDEF, diagonals $\overline{CE}$ and $\overline{DF}$ intersect at G. Then $\angle EFG \neq$



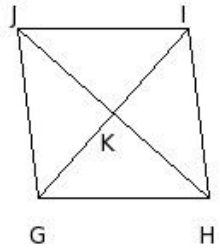
(i) $\angle GFC$ (ii) $\angle CDG$ (iii) $\angle FGE$ (iv) $\angle GDE$

52. In rhombus IJKL, diagonals $\overline{IK}$ and $\overline{JL}$ intersect at M. Then LM =



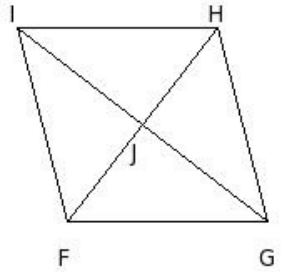
(i) LI (ii) KM (iii) IM (iv) JM

53. In rhombus GHIJ, diagonals $\overline{GI}$ and $\overline{HJ}$ intersect at K. Then HK =



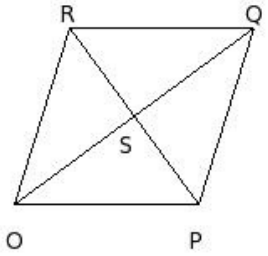
(i) JG (ii) IK (iii) GK (iv) JK

54. In rhombus FGHI, diagonals $\overline{FH}$ and $\overline{GI}$ intersect at J. Then FJ =



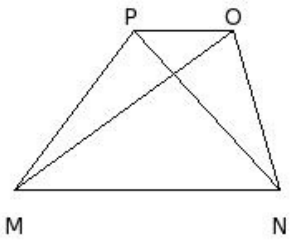
(i) IJ (ii) GJ (iii) HJ (iv) IF

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



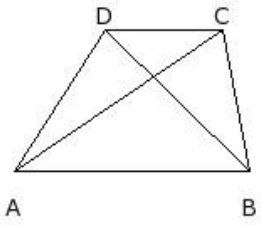
(i) RS (ii) OS (iii) PS (iv) RO

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



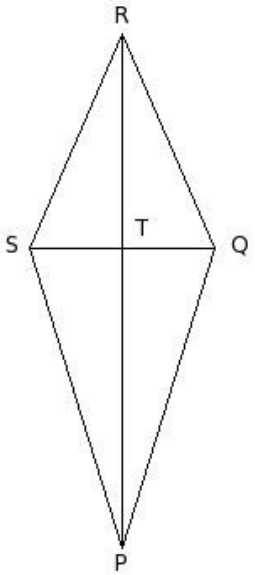
(i) $\overline{PM}$ (ii) $\overline{NP}$ (iii) $\overline{NO}$ (iv) $\overline{MO}$ (v) $\overline{OP}$

57. In trapezium ABCD, $\overline{AC}$ and $\overline{BD}$ are diagonals. Then $\overline{CD}$ ∥



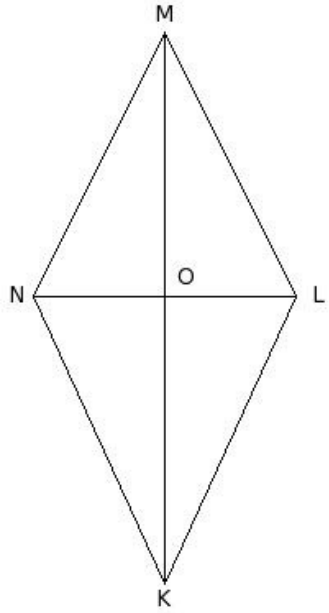
(i) $\overline{AC}$ (ii) $\overline{AB}$ (iii) $\overline{BD}$ (iv) $\overline{BC}$ (v) $\overline{DA}$

58. In kite PQRS, $\overline{PR}$ and $\overline{QS}$ are diagonals. Then PQ =



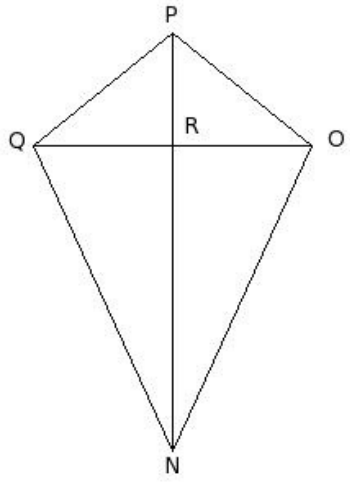
(i) RS (ii) QR (iii) SP (iv) QS (v) PR

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



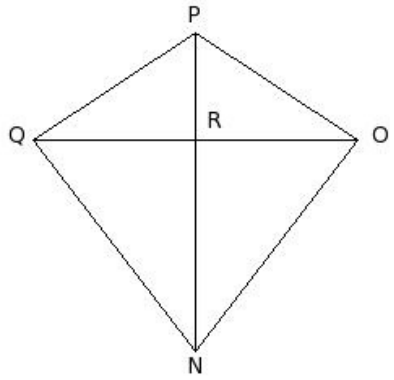
(i) KL (ii) LM (iii) LN (iv) MN (v) KM

60. In kite NOPQ, $\overline{NP}$ and $\overline{OQ}$ are diagonals. Then OP =



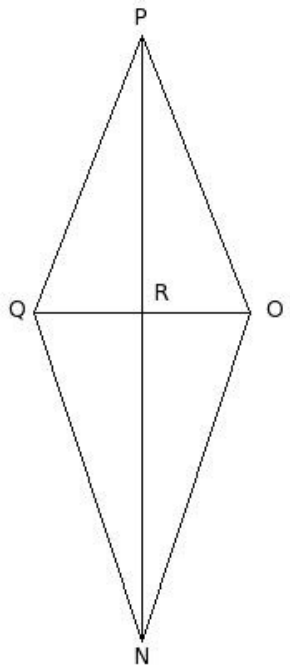
(i) NP (ii) OQ (iii) NO (iv) PQ (v) QN

61. In kite NOPQ, $\overline{NP}$ and $\overline{OQ}$ are diagonals. Then PQ =



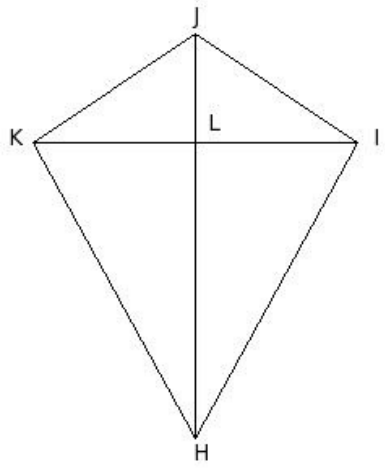
(i) QN (ii) NO (iii) OP (iv) NP (v) OQ

62. In kite NOPQ, $\overline{NP}$ and $\overline{OQ}$ are diagonals. Then $\angle NOP =$



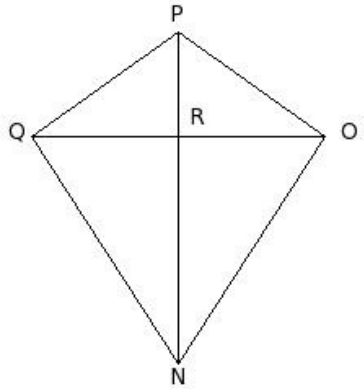
(i) $\angle PQO$ (ii) $\angle NRQ$ (iii) $\angle NRO$ (iv) $\angle PQN$ (v) $\angle NQO$

63. In kite HIJK, $\overline{HJ}$ and $\overline{IK}$ are diagonals. Then $\angle JKH =$



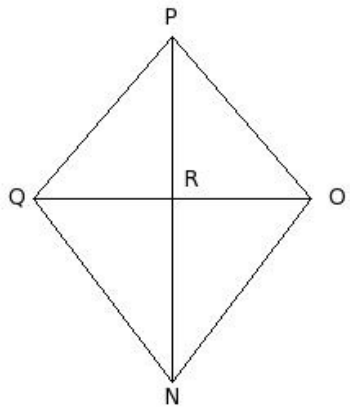
(i) $\angle HLI$ (ii) $\angle HLK$ (iii) $\angle HKI$ (iv) $\angle JKI$ (v) $\angle HIJ$

64. In kite NOPQ, $\overline{NP}$ and $\overline{OQ}$ are diagonals. Then $\angle NRQ =$



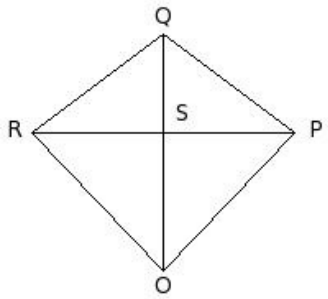
(i) $\angle PQN$ (ii) $\angle NQO$ (iii) $\angle PQO$ (iv) $\angle NRO$ (v) $\angle NOP$

65. In kite NOPQ, $\overline{NP}$ and $\overline{OQ}$ are diagonals. Then $\angle NRO =$



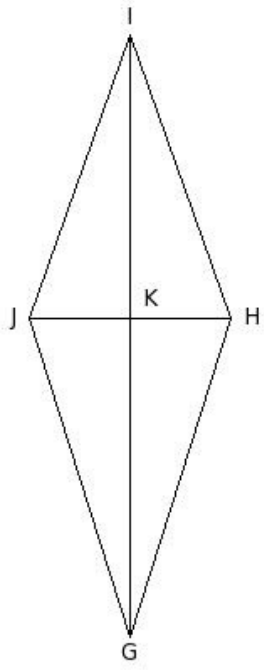
(i) $\angle NRQ$ (ii) $\angle NQO$ (iii) $\angle NOP$ (iv) $\angle PQN$ (v) $\angle PQO$

66. In kite OPQR, $\overline{OQ}$ and $\overline{PR}$ are diagonals. Then $\triangle QRO \cong$



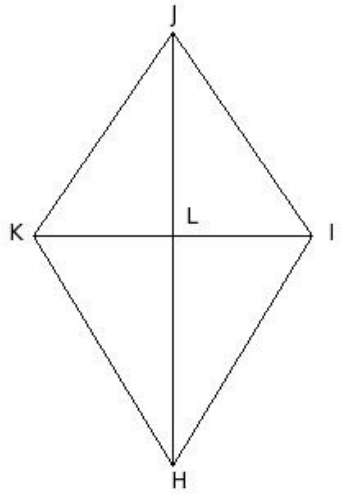
(i) $\triangle SRO$ (ii) $\triangle SQP$ (iii) $\triangle QPO$ (iv) $\triangle RPQ$ (v) $\triangle RPO$

67. In kite GHIJ, $\overline{GI}$ and $\overline{HJ}$ are diagonals. Then $\triangle IHG \cong$



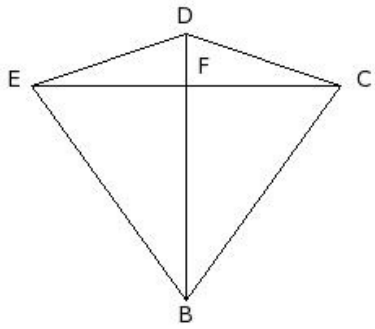
(i) $\triangle JHI$ (ii) $\triangle KJG$ (iii) $\triangle IJG$ (iv) $\triangle JHG$ (v) $\triangle KIH$

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



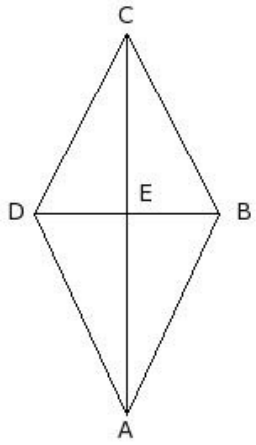
(i) $\triangle LJI$ (ii) $\triangle LJK$ (iii) $\triangle KIJ$ (iv) $\triangle LIH$ (v) $\triangle KIH$

69. In kite BCDE, $\overline{BD}$ and $\overline{CE}$ are diagonals. Then $\triangle FCB \cong$



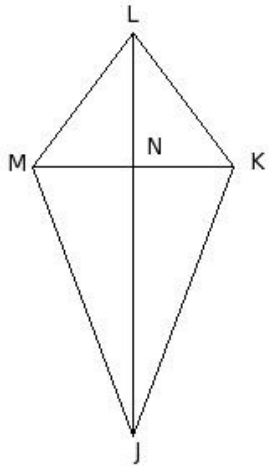
(i) $\triangle ECB$ (ii) $\triangle FEB$ (iii) $\triangle FDE$ (iv) $\triangle ECD$ (v) $\triangle FDC$

70. In kite ABCD, $\overline{AC}$ and $\overline{BD}$ are diagonals. Then $\triangle ECD \cong$



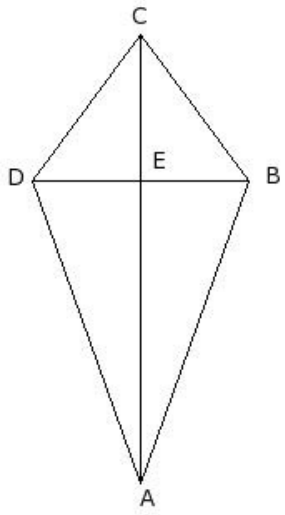
(i) $\triangle EBA$ (ii) $\triangle DBC$ (iii) $\triangle DBA$ (iv) $\triangle EDA$ (v) $\triangle ECB$

71. In kite JKLM, $\overline{JL}$ and $\overline{KM}$ are diagonals. Then $\triangle NLK \cong$



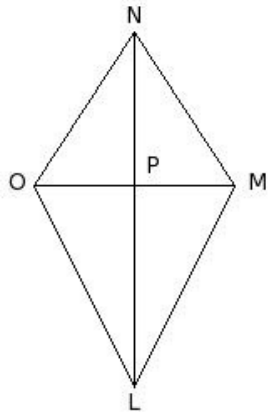
(i) $\triangle NLM$ (ii) $\triangle NMJ$ (iii) $\triangle NKJ$ (iv) $\triangle MKJ$ (v) $\triangle MKL$

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



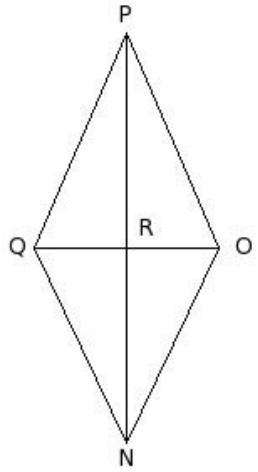
(i) $\angle ECD$ (ii) $\angle BAE$ (iii) $\angle AED$ (iv) $\angle DEC$ (v) $\angle ECB$

73. In kite LMNO, $\overline{LN}$ and $\overline{MO}$ are diagonals. Then $\angle MLP =$



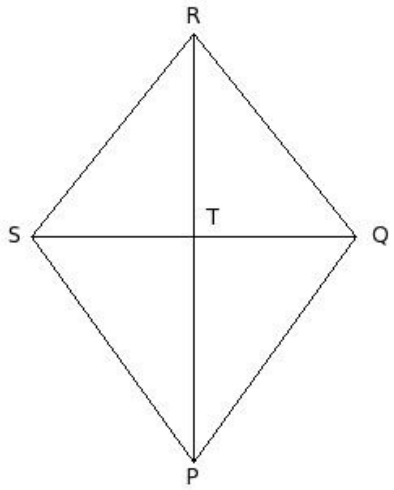
(i) $\angle PNM$ (ii) $\angle LPO$ (iii) $\angle PNO$ (iv) $\angle OPN$ (v) $\angle OLP$

74. In kite NOPQ, $\overline{NP}$ and $\overline{OQ}$ are diagonals. Then $\angle RPQ =$



(i) $\angle QRP$ (ii) $\angle RPO$ (iii) $\angle QNR$ (iv) $\angle ONR$ (v) $\angle NRQ$

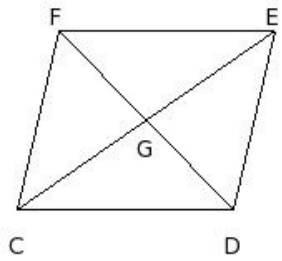
75. In kite PQRS, $\overline{PR}$ and $\overline{QS}$ are diagonals. Then $\angle TRQ =$



(i) $\angle TRS$ (ii) $\angle QPT$ (iii) $\angle STR$ (iv) $\angle PTS$ (v) $\angle SPT$

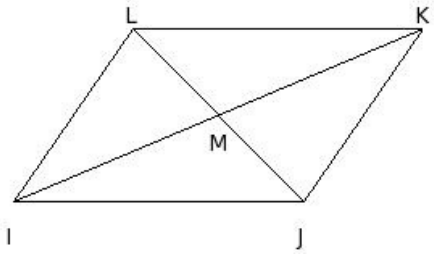
76. In the given parallelogram, which of the following statements are true?

a) $DG = GC$
b) $\triangle DFC \cong \triangle EFC$
c) $\angle DEF = \angle FCD$
d) $DG = FG$
e) $\triangle GCD \cong \triangle GEF$



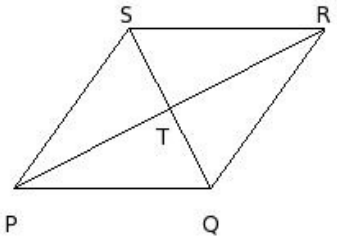
(i) {a,b,e} (ii) {a,c,d} (iii) {c,d,e} (iv) {b,d} (v) {a,c}

77. In parallelogram IJKL, diagonals $\overline{JL}$ and $\overline{IK}$ intersect at M. Then LM =



(i) JK (ii) KM (iii) IM (iv) LI (v) JM

78. In rhombus PQRS, diagonals $\overline{PR}$ and $\overline{QS}$ intersect at T. Then ∠PQR =



(i) ∠PQT (ii) ∠RSP (iii) ∠QRS (iv) ∠SPQ

Assignment Key

1) (iv)	2) (v)	3) (v)	4) (i)	5) (iii)	6) (i)
7) (iv)	8) (iii)	9) (i)	10) (v)	11) (i)	12) (ii)
13) (i)	14) (v)	15) (i)	16) (iv)	17) (iv)	18) (iv)
19) (v)	20) (v)	21) (iii)	22) (i)	23) (ii)	24) (ii)
25) (iv)	26) (i)	27) (iii)	28) (ii)	29) (iv)	30) (iii)
31) (iv)	32) (i)	33) (iv)	34) (iv)	35) (ii)	36) (iii)
37) (i)	38) (iii)	39) (i)	40) (iii)	41) (iv)	42) (iii)
43) (iv)	44) (ii)	45) (i)	46) (iii)	47) (iii)	48) (i)
49) (i)	50) (iv)	51) (iii)	52) (iv)	53) (iv)	54) (iii)
55) (ii)	56) (v)	57) (ii)	58) (iii)	59) (i)	60) (iv)
61) (iii)	62) (iv)	63) (v)	64) (iv)	65) (i)	66) (iii)
67) (iii)	68) (iv)	69) (ii)	70) (v)	71) (i)	72) (ii)
73) (v)	74) (ii)	75) (i)	76) (iii)	77) (v)	78) (ii)