EduSahara™ Assignment

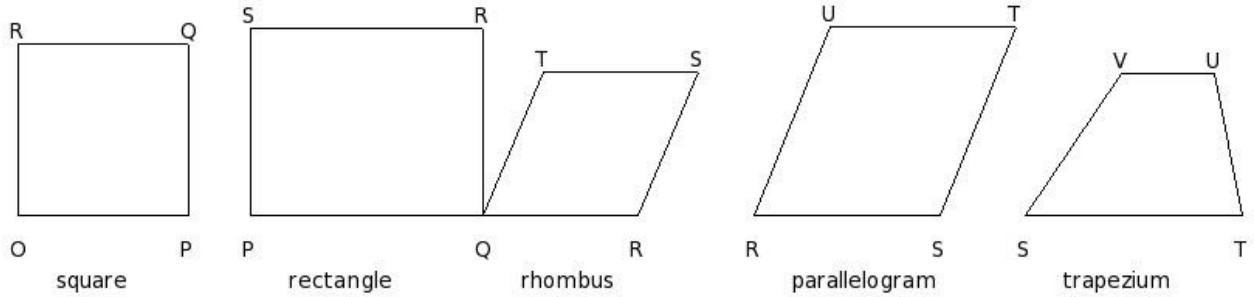
Name : Quadrilateral Properties Using Diagrams

Chapter : Quadrilaterals

Grade : SSC Grade IX

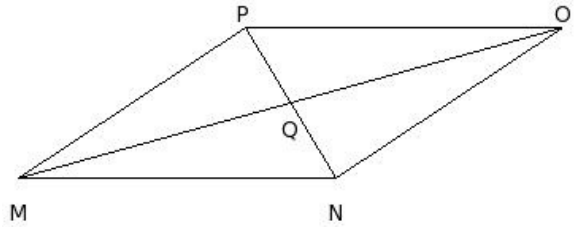
License : Non Commercial Use

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



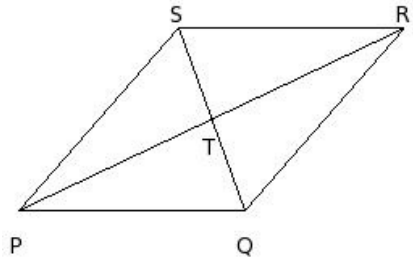
(i) square (ii) trapezium (iii) parallelogram (iv) rectangle (v) rhombus

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



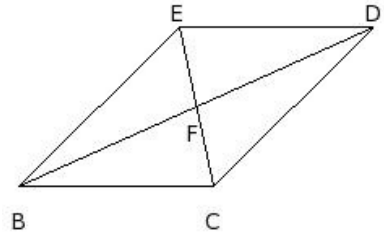
(i) $\overline{PM}$ (ii) $\overline{NO}$ (iii) $\overline{OP}$ (iv) $\overline{NP}$ (v) $\overline{MO}$

3. In parallelogram $PQRS$, diagonals $\overline{QS}$ and $\overline{PR}$ intersect at T. Then $\overline{RS} \parallel$



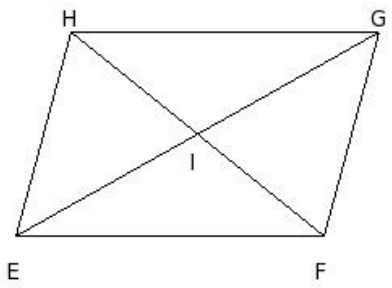
(i) $\overline{SP}$ (ii) $\overline{QS}$ (iii) $\overline{PR}$ (iv) $\overline{PQ}$ (v) $\overline{QR}$

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



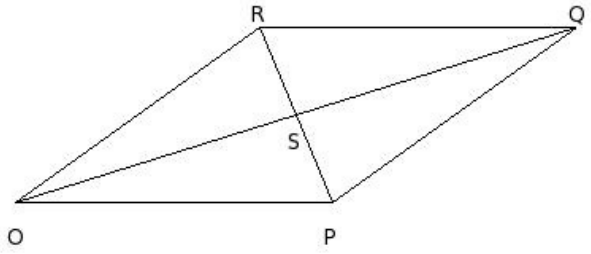
(i) $\overline{DE}$ (ii) $\overline{CE}$ (iii) $\overline{BC}$ (iv) $\overline{CD}$ (v) $\overline{BD}$

5. In parallelogram EFGH, diagonals $\overline{FH}$ and $\overline{EG}$ intersect at I. Then $\overline{FG}$ ∥



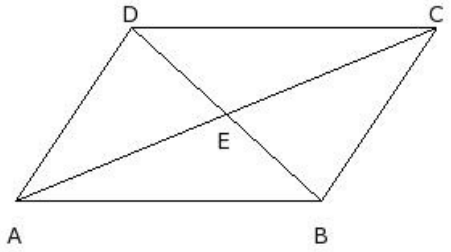
(i) $\overline{GH}$ (ii) $\overline{HE}$ (iii) $\overline{FH}$ (iv) $\overline{EF}$ (v) $\overline{EG}$

6. In parallelogram OPQR, diagonals $\overline{PR}$ and $\overline{OQ}$ intersect at S. Then OP =



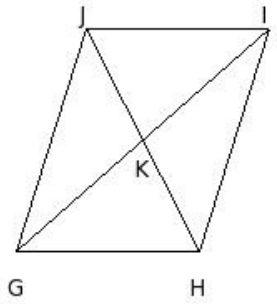
(i) PQ (ii) OQ (iii) RO (iv) PR (v) QR

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



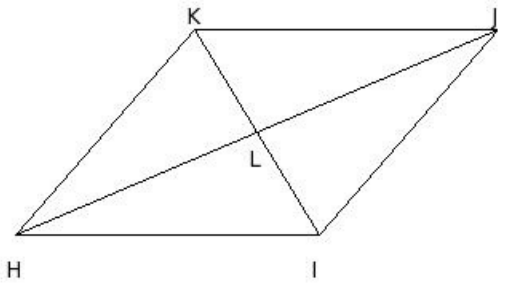
(i) BC (ii) DA (iii) AB (iv) BD (v) AC

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



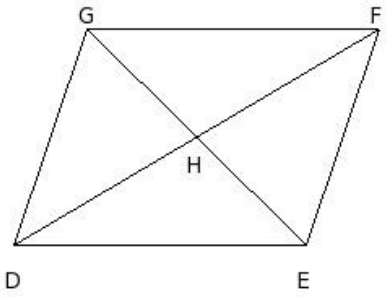
(i) GI (ii) HI (iii) IJ (iv) HJ (v) GH

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



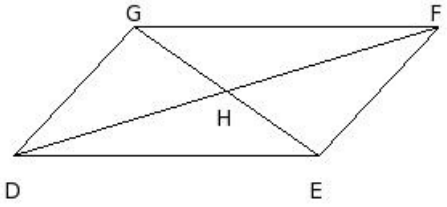
(i) HJ (ii) IK (iii) JK (iv) HI (v) KH

10. In parallelogram DEFG, diagonals $\overline{EG}$ and $\overline{DF}$ intersect at H. Then $\triangle GDE \cong$



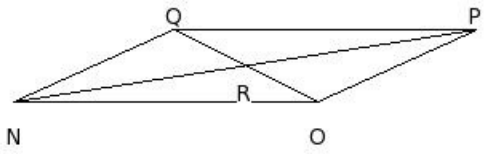
(i) $\triangle DEH$ (ii) $\triangle DEF$ (iii) $\triangle FGH$ (iv) $\triangle EFG$ (v) $\triangle FGD$

11. In parallelogram DEFG, diagonals $\overline{EG}$ and $\overline{DF}$ intersect at H. Then $\triangle EFG \cong$



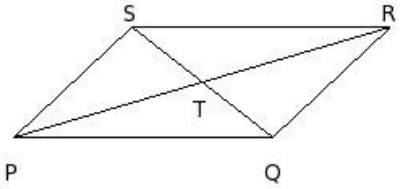
(i) $\triangle FGH$ (ii) $\triangle DEF$ (iii) $\triangle GDE$ (iv) $\triangle DEH$ (v) $\triangle FGD$

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



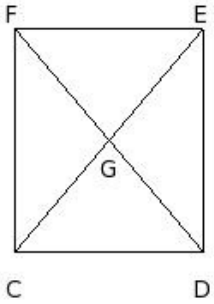
(i) $\triangle QNO$ (ii) $\triangle OPQ$ (iii) $\triangle PQR$ (iv) $\triangle NOR$ (v) $\triangle NOP$

13. In parallelogram PQRS, diagonals $\overline{QS}$ and $\overline{PR}$ intersect at T. Then $\triangle PQR \cong$



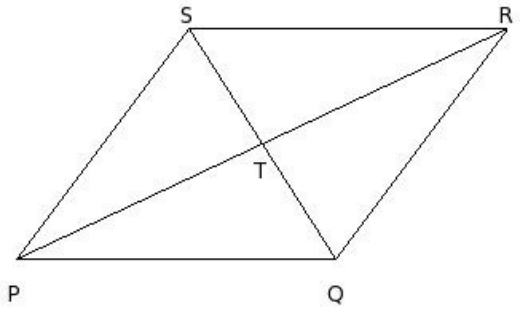
(i) $\triangle QRS$ (ii) $\triangle RST$ (iii) $\triangle PQT$ (iv) $\triangle RSP$ (v) $\triangle SPQ$

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



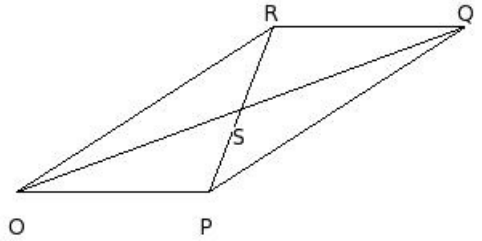
(i) $\angle EFG$ (ii) $\angle DEF$ (iii) $\angle CDG$ (iv) $\angle EFC$ (v) $\angle CDE$

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



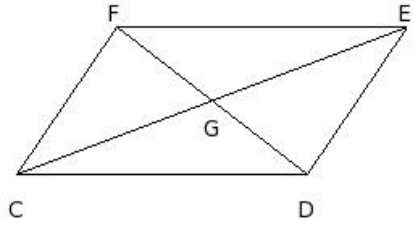
(i) $\angle PQT$ (ii) $\angle PQR$ (iii) $\angle RSP$ (iv) $\angle SPQ$ (v) $\angle RST$

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



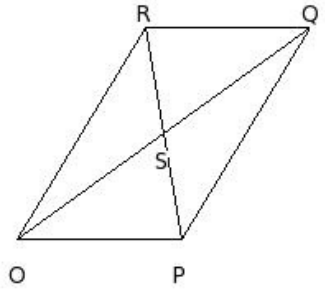
(i) $\angle QRS$ (ii) $\angle QRO$ (iii) $\angle ROP$ (iv) $\angle PQR$ (v) $\angle OPS$

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



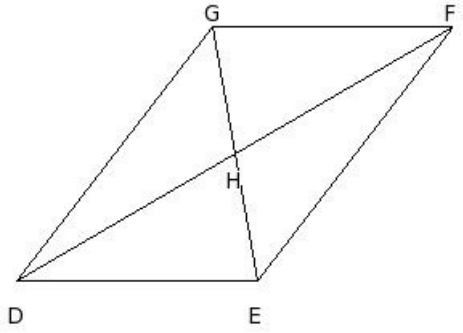
(i) $\angle CDG$ (ii) $\angle DEF$ (iii) $\angle CDE$ (iv) $\angle FCD$ (v) $\angle EFG$

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



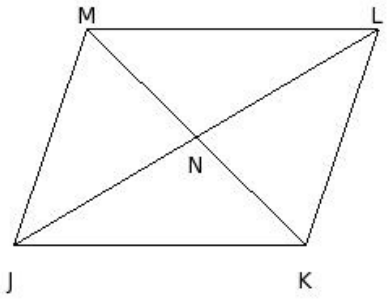
(i) RO (ii) PQ (iii) PS (iv) RS (v) OS

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



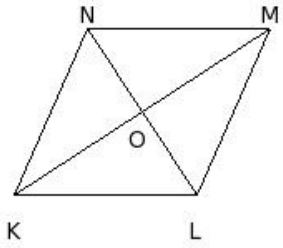
(i) EF (ii) GD (iii) GH (iv) EH (v) FH

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



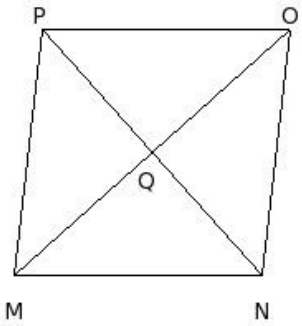
(i) KL (ii) MN (iii) JN (iv) LN (v) MJ

21. In rhombus KLMN, diagonals $\overline{KM}$ and $\overline{LN}$ intersect at O. Then $\overline{KL}$ ∥



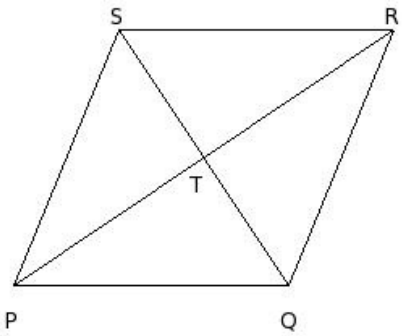
(i) $\overline{LN}$ (ii) $\overline{LM}$ (iii) $\overline{NK}$ (iv) $\overline{MN}$

22. In rhombus MNOP, diagonals $\overline{MO}$ and $\overline{NP}$ intersect at Q. Then $\overline{OP}$ ∥



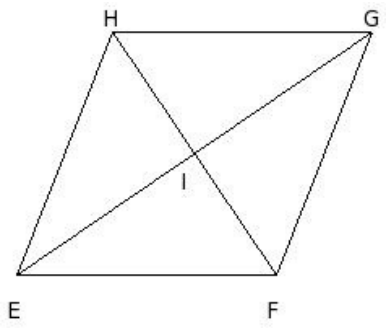
(i) $\overline{NO}$ (ii) $\overline{MN}$ (iii) $\overline{NP}$ (iv) $\overline{PM}$

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



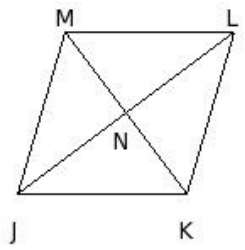
(i) $\overline{QR}$ (ii) $\overline{RS}$ (iii) $\overline{PQ}$ (iv) $\overline{QS}$

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



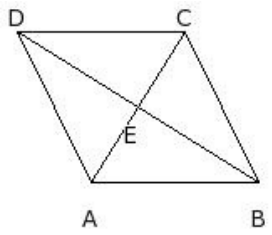
(i) $\overline{GH}$ (ii) $\overline{EF}$ (iii) $\overline{FH}$ (iv) $\overline{HE}$

25. In rhombus JKLM, diagonals $\overline{JL}$ and $\overline{KM}$ intersect at N. Then $JK \neq$



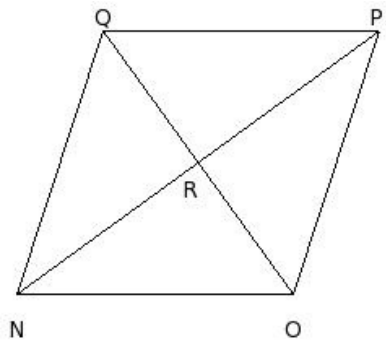
(i) LM (ii) MJ (iii) KL (iv) KM

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



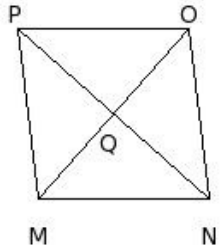
(i) BC (ii) BD (iii) AB (iv) DA

27. In rhombus NOPQ, diagonals $\overline{NP}$ and $\overline{OQ}$ intersect at R. Then $QN \neq$



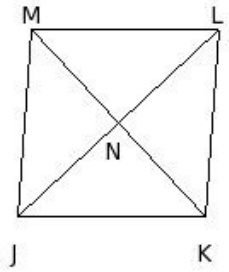
(i) PQ (ii) OQ (iii) OP (iv) NO

28. In rhombus $MNOP$, diagonals $\overline{MO}$ and $\overline{NP}$ intersect at Q. Then $NO \neq$



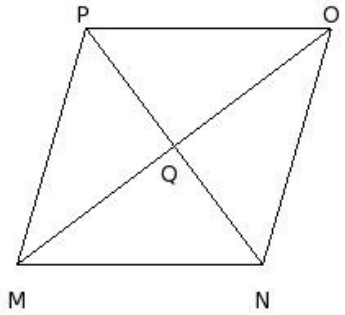
(i) PM (ii) OP (iii) MN (iv) NP

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



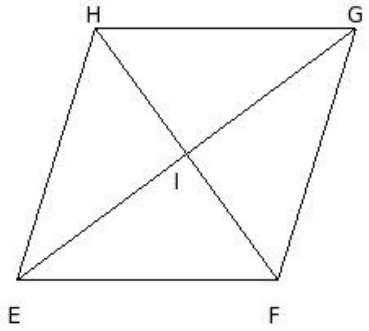
(i) $\triangle LMJ$ (ii) $\triangle JKL$ (iii) $\triangle NJK$ (iv) $\triangle KLM$

30. In rhombus $MNOP$, diagonals $\overline{MO}$ and $\overline{NP}$ intersect at Q. Then $\triangle NOP \cong$



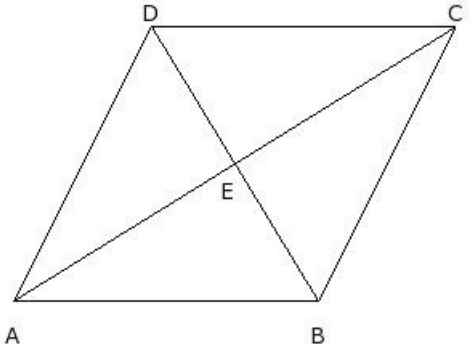
(i) $\triangle QMN$ (ii) $\triangle PMN$ (iii) $\triangle OPM$ (iv) $\triangle MNO$

31. In rhombus $EFGH$, diagonals $\overline{EG}$ and $\overline{FH}$ intersect at I. Then $\triangle GHE \cong$



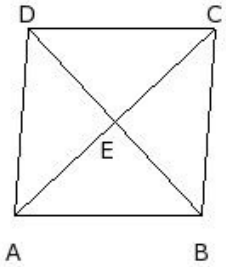
(i) $\triangle EFG$ (ii) $\triangle FGH$ (iii) $\triangle HEF$ (iv) $\triangle IEF$

32. In rhombus $ABCD$, diagonals $\overline{AC}$ and $\overline{BD}$ intersect at E. Then $\triangle ABC \cong$



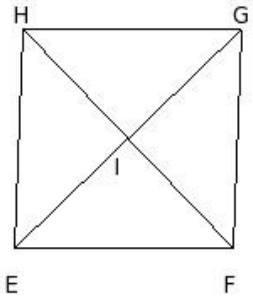
(i) $\triangle DAB$ (ii) $\triangle CDA$ (iii) $\triangle EAB$ (iv) $\triangle BCD$

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



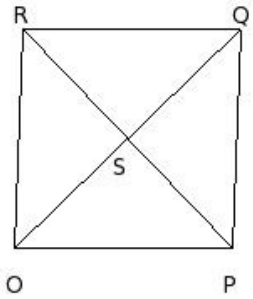
(i) $\triangle EAD$ (ii) $\triangle DAB$ (iii) $\triangle ECB$ (iv) $\triangle ECD$

34. In rhombus $EFGH$, diagonals $\overline{EG}$ and $\overline{FH}$ intersect at I. Then $\triangle IGF \ncong$



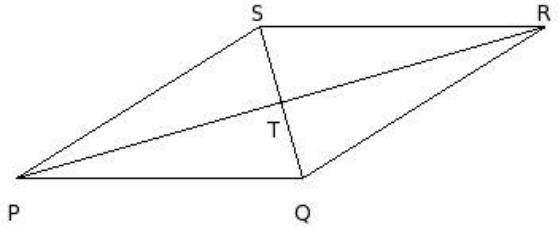
(i) $\triangle IEF$ (ii) $\triangle IGH$ (iii) $\triangle HEF$ (iv) $\triangle IEH$

35. In rhombus $OPQR$, diagonals $\overline{OQ}$ and $\overline{PR}$ intersect at S. Then $\triangle SQR \ncong$



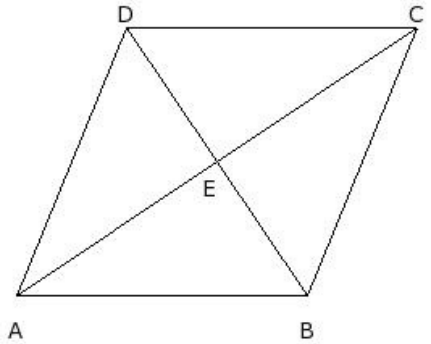
(i) $\triangle ROP$ (ii) $\triangle SQP$ (iii) $\triangle SOR$ (iv) $\triangle SOP$

36. In rhombus $PQRS$, diagonals $\overline{PR}$ and $\overline{QS}$ intersect at T. Then $\triangle TPS \cong$



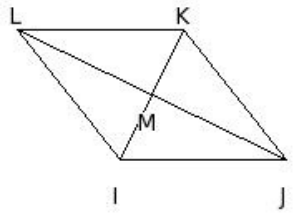
(i) $\triangle TPQ$ (ii) $\triangle TRQ$ (iii) $\triangle TRS$ (iv) $\triangle SPQ$

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



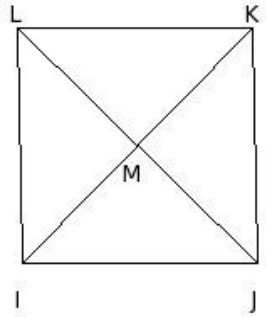
(i) $\angle ABC$ (ii) $\angle ABE$ (iii) $\angle BCD$ (iv) $\angle CDA$

38. In rhombus $IJKL$, diagonals $\overline{IK}$ and $\overline{JL}$ intersect at M. Then $\angle JKL =$



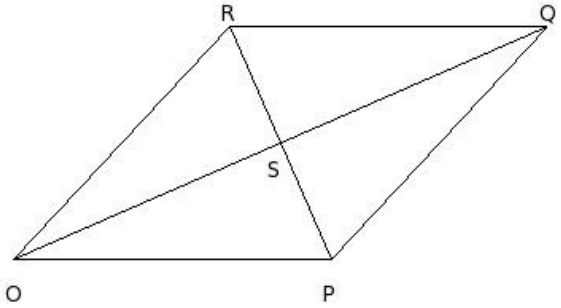
(i) $\angle LIJ$ (ii) $\angle IJK$ (iii) $\angle IJM$ (iv) $\angle KLI$

39. In rhombus $IJKL$, diagonals $\overline{IK}$ and $\overline{JL}$ intersect at M. Then $\angle KLI =$



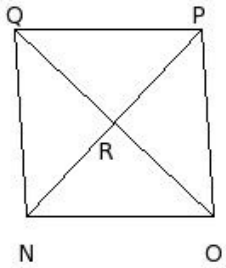
(i) $\angle LIJ$ (ii) $\angle JKL$ (iii) $\angle IJK$ (iv) $\angle IJM$

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



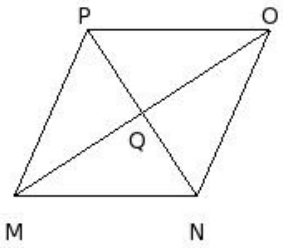
(i) $\angle RSQ$ (ii) $\angle ROP$ (iii) $\angle QSP$ (iv) $\angle OSR$

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



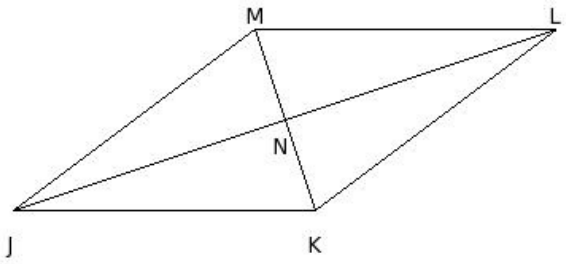
(i) $\angle NRQ$ (ii) $\angle PRO$ (iii) $\angle ORN$ (iv) $\angle QNO$

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



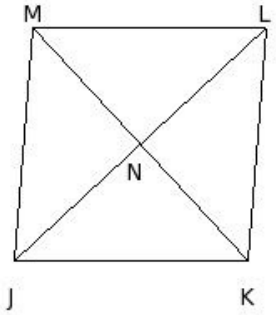
(i) $\angle PQO$ (ii) $\angle OQN$ (iii) $\angle NQM$ (iv) $\angle PMN$

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



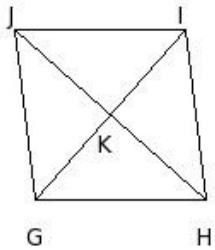
(i) $\angle JNM$ (ii) $\angle KNJ$ (iii) $\angle MNL$ (iv) $\angle MJK$

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



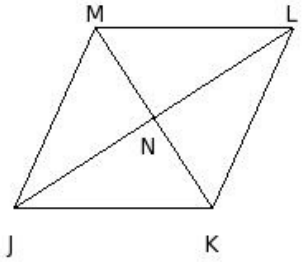
(i) $\angle NLM$ (ii) $\angle MJN$ (iii) $\angle KLN$ (iv) $\angle JNM$

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



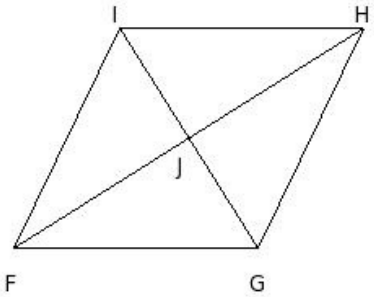
(i) $\angle KGH$ (ii) $\angle HIK$ (iii) $\angle JGK$ (iv) $\angle GKJ$

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



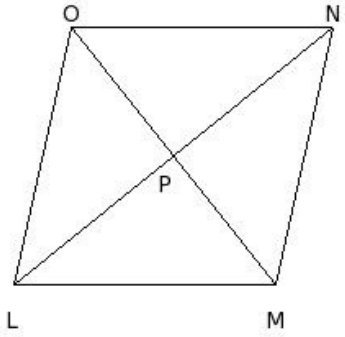
(i) $\angle NLM$ (ii) $\angle NJK$ (iii) $\angle KLN$ (iv) $\angle JNM$

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



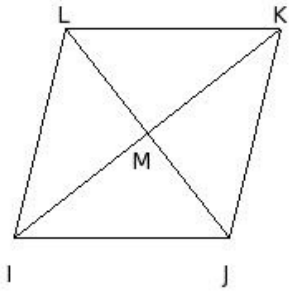
(i) $\angle FJI$ (ii) $\angle IFJ$ (iii) $\angle JFG$ (iv) $\angle JHI$

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



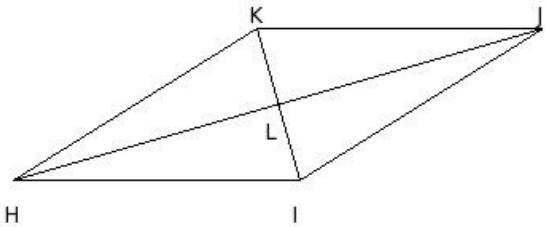
(i) $\angle LMP$ (ii) $\angle NOP$ (iii) $\angle PMN$ (iv) $\angle OPN$

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



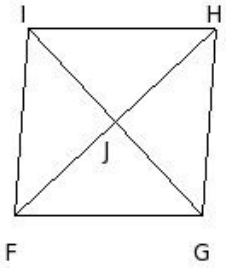
(i) $\angle IJM$ (ii) $\angle KLM$ (iii) $\angle MLI$ (iv) $\angle LMK$

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



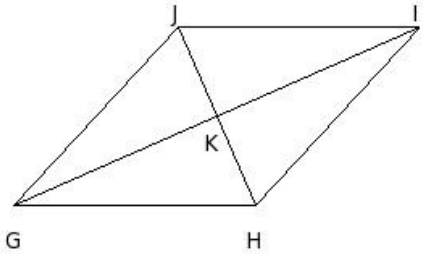
(i) $\angle LKH$ (ii) $\angle LIJ$ (iii) $\angle KLJ$ (iv) $\angle JKL$

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



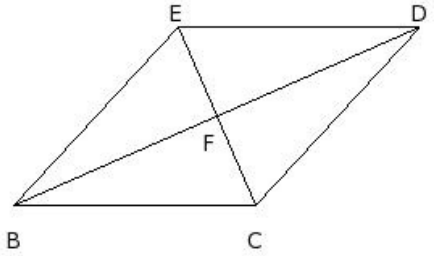
(i) $\angle JIF$ (ii) $\angle IJH$ (iii) $\angle FGJ$ (iv) $\angle JGH$

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



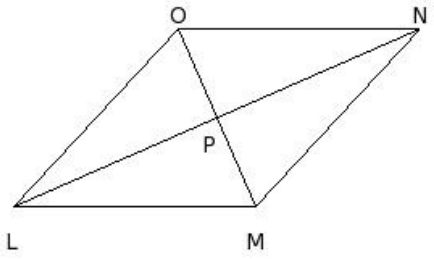
(i) HK (ii) IK (iii) JG (iv) GK

53. In rhombus BCDE, diagonals $\overline{BD}$ and $\overline{CE}$ intersect at F. Then CF =



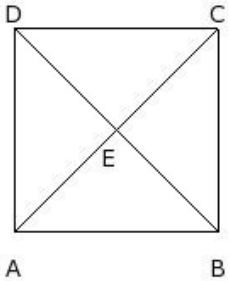
(i) DF (ii) EF (iii) EB (iv) BF

54. In rhombus LMNO, diagonals $\overline{LN}$ and $\overline{MO}$ intersect at P. Then LP =



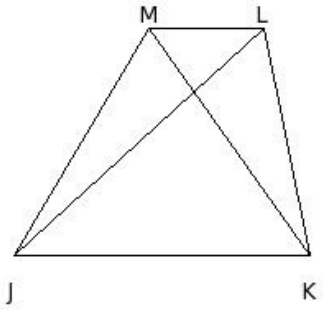
(i) OL (ii) MP (iii) NP (iv) OP

55. In rhombus ABCD, diagonals $\overline{AC}$ and $\overline{BD}$ intersect at E. Then CE =



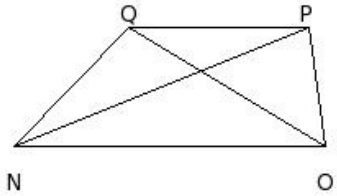
(i) BE (ii) DE (iii) DA (iv) AE

56. In trapezium JKLM, $\overline{JL}$ and $\overline{KM}$ are diagonals. Then $\overline{JK} \parallel$



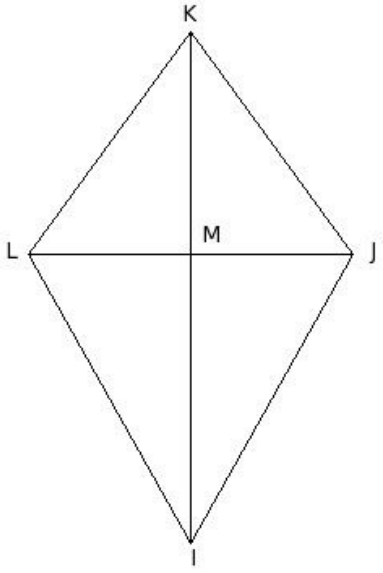
(i) $\overline{LM}$ (ii) $\overline{KM}$ (iii) $\overline{KL}$ (iv) $\overline{MJ}$ (v) $\overline{JL}$

57. In trapezium NOPQ, $\overline{NP}$ and $\overline{OQ}$ are diagonals. Then $\overline{PQ} \parallel$



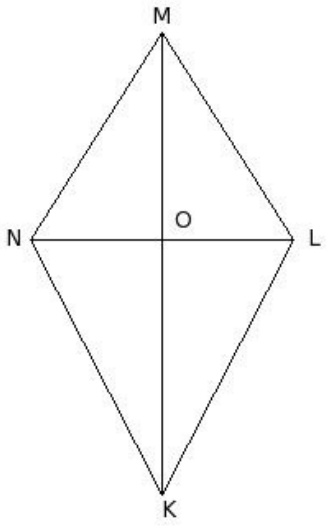
(i) $\overline{NO}$ (ii) $\overline{NP}$ (iii) $\overline{OP}$ (iv) $\overline{QN}$ (v) $\overline{OQ}$

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



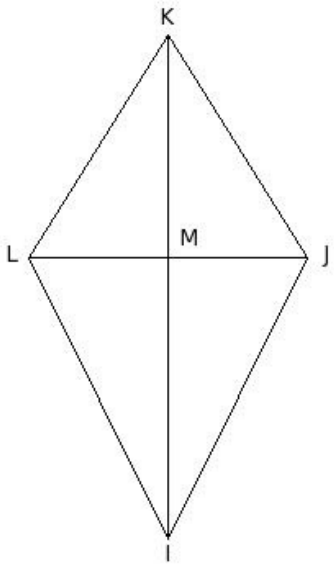
(i) JK (ii) JL (iii) LI (iv) KL (v) IK

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



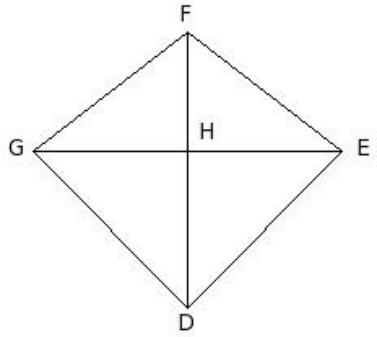
(i) KM (ii) LN (iii) LM (iv) KL (v) MN

60. In kite IJKL, $\overline{IK}$ and $\overline{JL}$ are diagonals. Then JK =



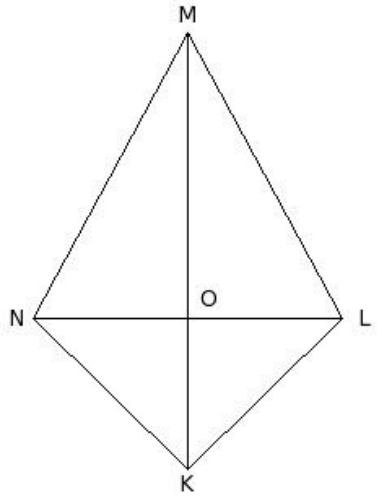
(i) KL (ii) IJ (iii) JL (iv) IK (v) LI

61. In kite DEFG, $\overline{DF}$ and $\overline{EG}$ are diagonals. Then FG =



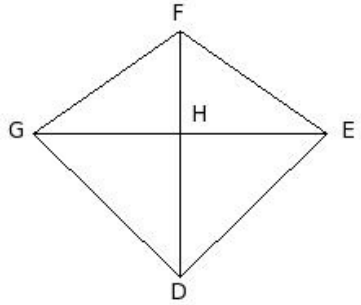
(i) DE (ii) EG (iii) GD (iv) DF (v) EF

62. In kite KLMN, $\overline{KM}$ and $\overline{LN}$ are diagonals. Then ∠KLM =



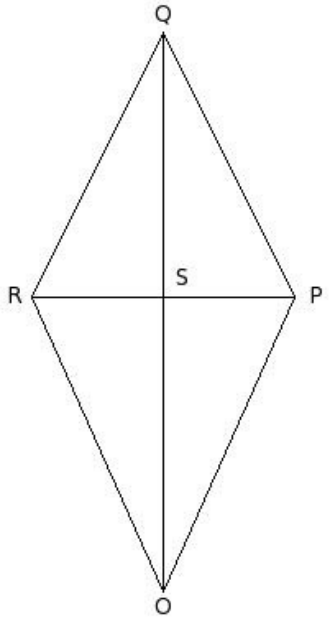
(i) ∠KON (ii) ∠KOL (iii) ∠MNK (iv) ∠MNL (v) ∠KNL

63. In kite DEFG, $\overline{DF}$ and $\overline{EG}$ are diagonals. Then ∠FGD =



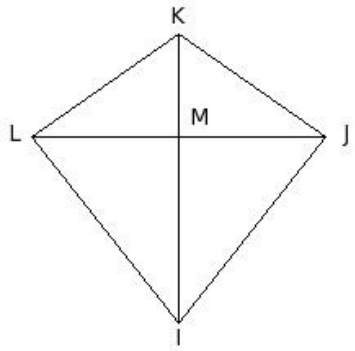
(i) ∠DHG (ii) ∠DHE (iii) ∠FGE (iv) ∠DGE (v) ∠DEF

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



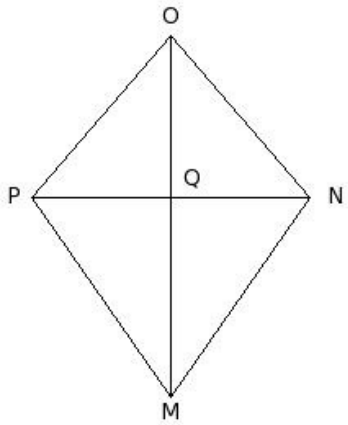
(i) $\angle QRP$ (ii) $\angle OPQ$ (iii) $\angle OSP$ (iv) $\angle ORP$ (v) $\angle QRO$

65. In kite IJKL, $\overline{IK}$ and $\overline{JL}$ are diagonals. Then $\angle IMJ =$



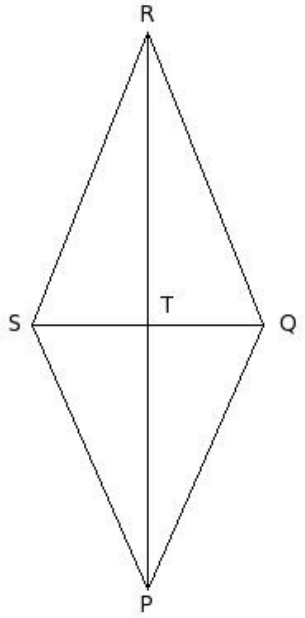
(i) $\angle IML$ (ii) $\angle KLI$ (iii) $\angle IJK$ (iv) $\angle ILJ$ (v) $\angle KLJ$

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



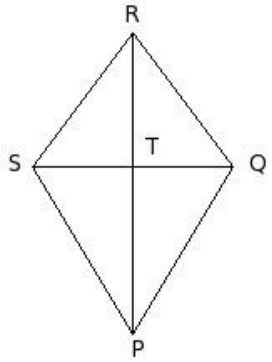
(i) $\triangle PNO$ (ii) $\triangle ONM$ (iii) $\triangle QON$ (iv) $\triangle QPM$ (v) $\triangle PNM$

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



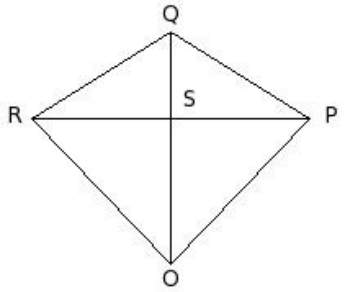
(i) $\triangle TRQ$ (ii) $\triangle RSP$ (iii) $\triangle SQR$ (iv) $\triangle SQP$ (v) $\triangle TSP$

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



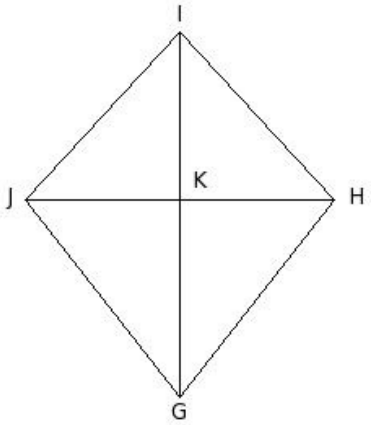
(i) $\triangle SQR$ (ii) $\triangle TRS$ (iii) $\triangle SQP$ (iv) $\triangle TQP$ (v) $\triangle TRQ$

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



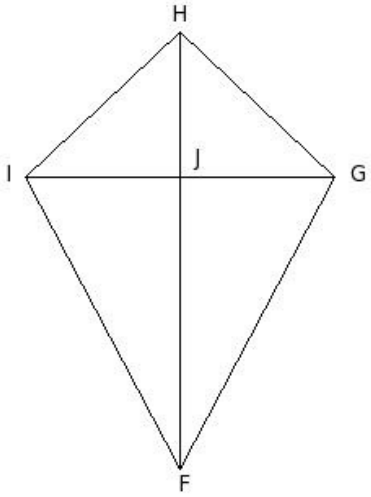
(i) $\triangle RPQ$ (ii) $\triangle RPO$ (iii) $\triangle SQR$ (iv) $\triangle SRO$ (v) $\triangle SQP$

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



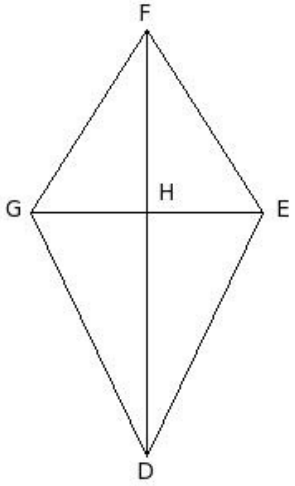
(i) $\triangle KIH$ (ii) $\triangle KJG$ (iii) $\triangle JHG$ (iv) $\triangle JHI$ (v) $\triangle KHG$

71. In kite FGHI, $\overline{FH}$ and $\overline{GI}$ are diagonals. Then $\triangle JHG \cong$



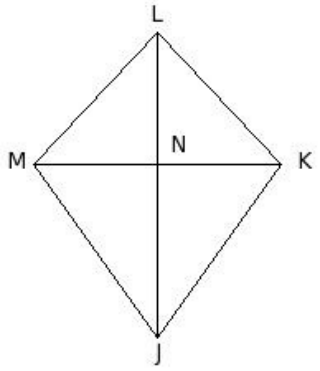
(i) $\triangle IGH$ (ii) $\triangle JGF$ (iii) $\triangle JHI$ (iv) $\triangle IGF$ (v) $\triangle JIF$

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



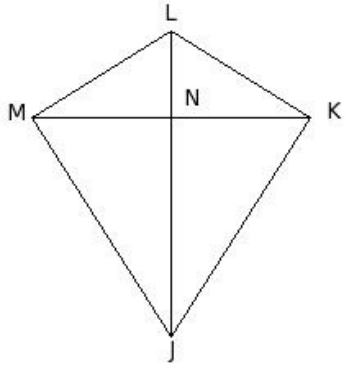
(i) $\angle GHF$ (ii) $\angle HFE$ (iii) $\angle HFG$ (iv) $\angle EDH$ (v) $\angle DHG$

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



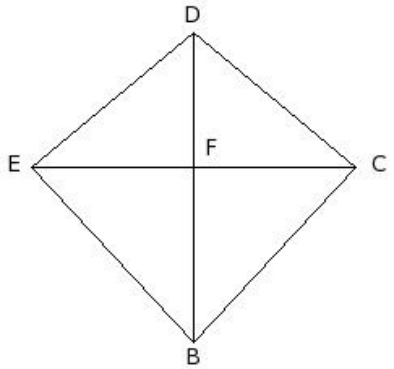
(i) $\angle MNL$ (ii) $\angle JNM$ (iii) $\angle MJN$ (iv) $\angle NLM$ (v) $\angle NLK$

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



(i) $\angle NLK$ (ii) $\angle MNL$ (iii) $\angle MJN$ (iv) $\angle JNM$ (v) $\angle KJN$

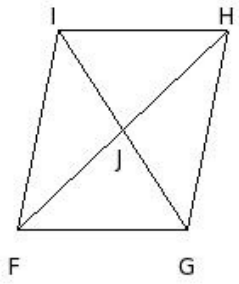
75. In kite $BCDE$, $\overline{BD}$ and $\overline{CE}$ are diagonals. Then $\angle FDC =$



(i) $\angle EBF$ (ii) $\angle CBF$ (iii) $\angle BFE$ (iv) $\angle EFD$ (v) $\angle FDE$

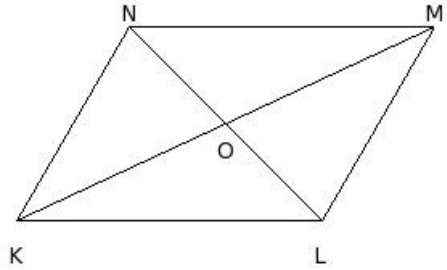
76. In the given parallelogram, which of the following statements are true?

a) $\triangle JIF \cong \triangle JGH$
b) $\triangle GIF \cong \triangle HIF$
c) $\overline{IF} \parallel \overline{GH}$
d) $GJ = JF$
e) $\triangle JFG \cong \triangle JHI$



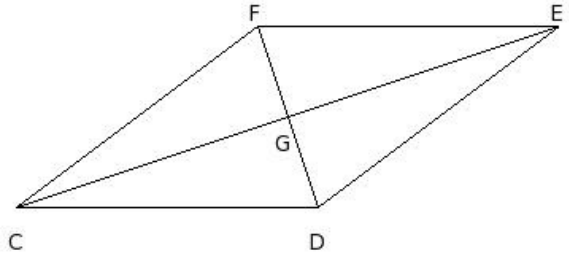
(i) {b,d,e} (ii) {b,a,c} (iii) {b,a} (iv) {d,c} (v) {a,c,e}

77. In parallelogram $KLMN$, diagonals $\overline{LN}$ and $\overline{KM}$ intersect at O. Then NO =



(i) MO (ii) LO (iii) NK (iv) KO (v) LM

78. In rhombus $CDEF$, diagonals $\overline{CE}$ and $\overline{DF}$ intersect at G. Then $\angle CDE =$



(i) $\angle CDG$ (ii) $\angle EFC$ (iii) $\angle DEF$ (iv) $\angle FCD$

Assignment Key

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

Copyright © Small Systems Computing Pvt. Ltd.