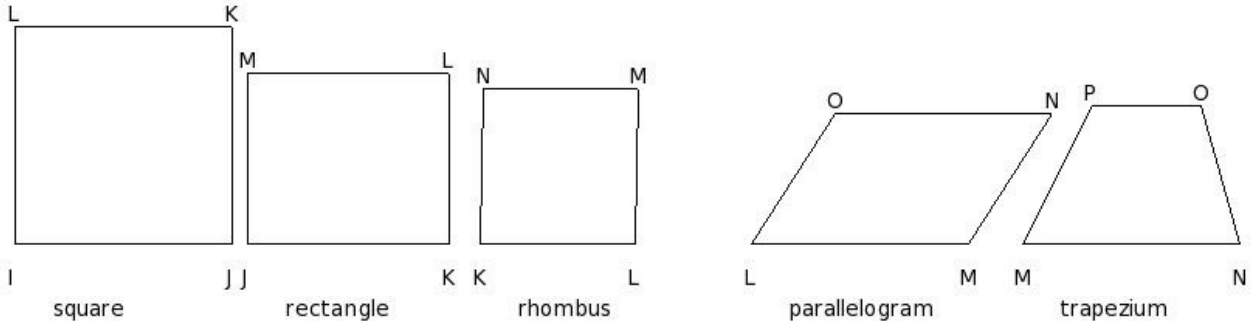
EduSahara™ Assignment

Name : Quadrilateral Properties Using Diagrams

Chapter : Quadrilaterals

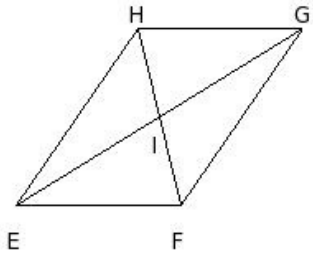
Grade : SSC Grade IX

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



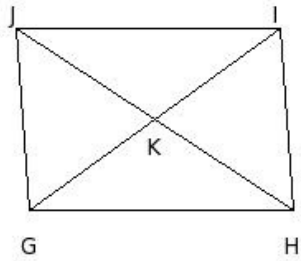
(i) square (ii) trapezium (iii) parallelogram (iv) rhombus (v) rectangle

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



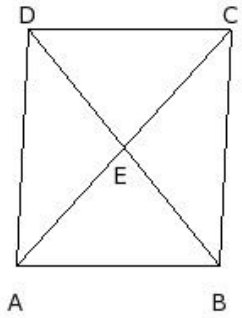
(i) $\overline{EG}$ (ii) $\overline{FH}$ (iii) $\overline{HE}$ (iv) $\overline{GH}$ (v) $\overline{FG}$

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



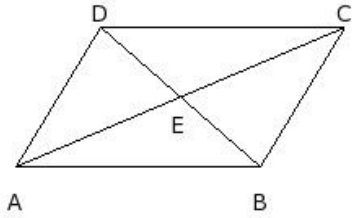
(i) $\overline{HI}$ (ii) $\overline{GH}$ (iii) $\overline{HJ}$ (iv) $\overline{JG}$ (v) $\overline{GI}$

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



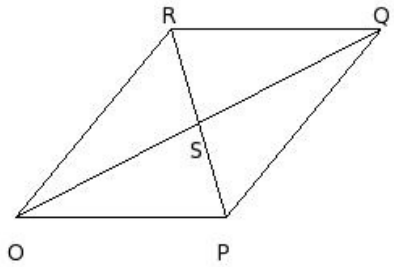
(i) $\overline{CD}$ (ii) $\overline{AC}$ (iii) $\overline{BC}$ (iv) $\overline{BD}$ (v) $\overline{AB}$

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



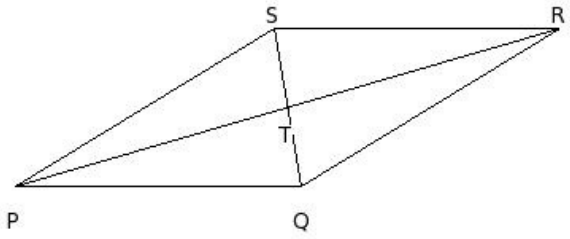
(i) $\overline{DA}$ (ii) $\overline{BD}$ (iii) $\overline{CD}$ (iv) $\overline{AB}$ (v) $\overline{AC}$

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



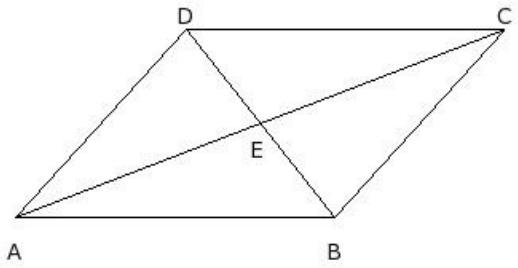
(i) OQ (ii) RO (iii) PQ (iv) QR (v) PR

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



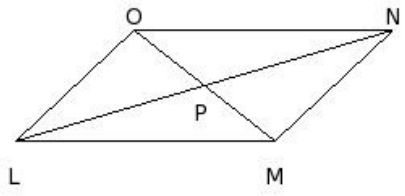
(i) PQ (ii) QR (iii) QS (iv) SP (v) PR

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



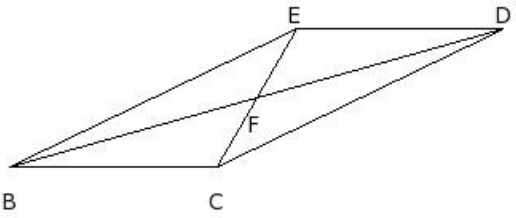
(i) BC (ii) AC (iii) AB (iv) BD (v) CD

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



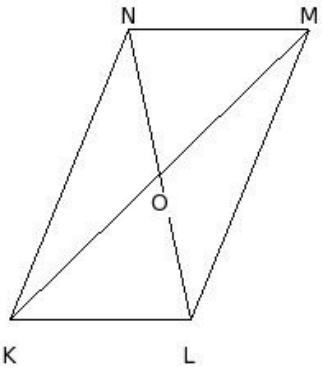
(i) MO (ii) LM (iii) OL (iv) LN (v) NO

10. In parallelogram BCDE, diagonals $\overline{CE}$ and $\overline{BD}$ intersect at F. Then $\triangle EBC \cong$



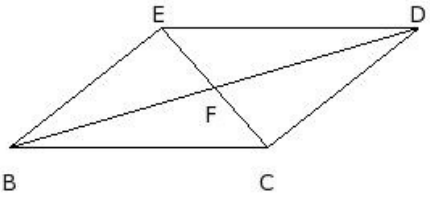
(i) $\triangle CDE$ (ii) $\triangle BCD$ (iii) $\triangle DEB$ (iv) $\triangle DEF$ (v) $\triangle BCF$

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



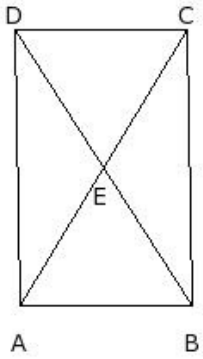
(i) $\triangle KLM$ (ii) $\triangle NKL$ (iii) $\triangle KLO$ (iv) $\triangle MNO$ (v) $\triangle MNK$

12. In parallelogram BCDE, diagonals $\overline{CE}$ and $\overline{BD}$ intersect at F. Then $\triangle DEB \cong$



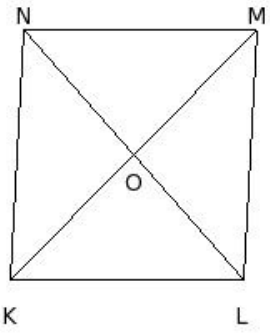
(i) $\triangle DEF$ (ii) $\triangle BCD$ (iii) $\triangle EBC$ (iv) $\triangle BCF$ (v) $\triangle CDE$

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



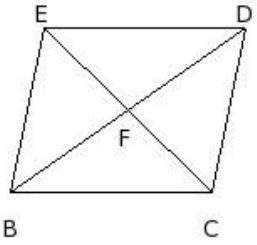
(i) $\triangle DAB$ (ii) $\triangle CDE$ (iii) $\triangle CDA$ (iv) $\triangle ABE$ (v) $\triangle BCD$

14. In parallelogram KLMN, diagonals $\overline{LN}$ and $\overline{KM}$ intersect at O. Then $\angle NKL$ =



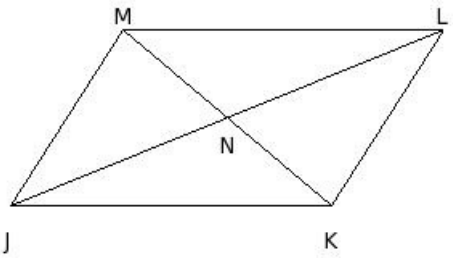
(i) $\angle LMN$ (ii) $\angle KLO$ (iii) $\angle MNK$ (iv) $\angle MNO$ (v) $\angle KLM$

15. In parallelogram BCDE, diagonals $\overline{CE}$ and $\overline{BD}$ intersect at F. Then $\angle CDE$ =



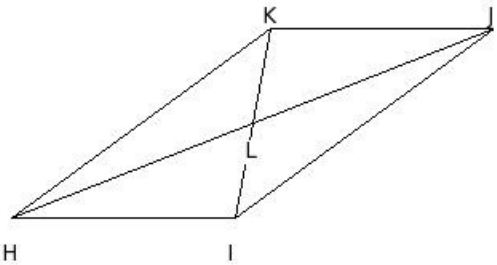
(i) $\angle BCD$ (ii) $\angle BCF$ (iii) $\angle EBC$ (iv) $\angle DEF$ (v) $\angle DEB$

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



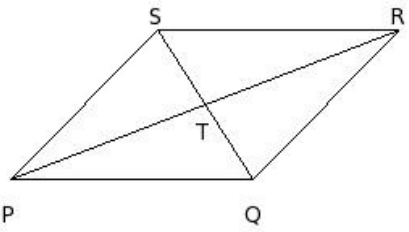
(i) $\angle JKN$ (ii) $\angle MJK$ (iii) $\angle LMJ$ (iv) $\angle KLM$ (v) $\angle LMN$

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



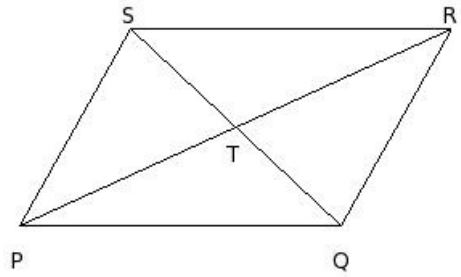
(i) $\angle IJK$ (ii) $\angle KHI$ (iii) $\angle HIJ$ (iv) $\angle JKL$ (v) $\angle HIL$

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



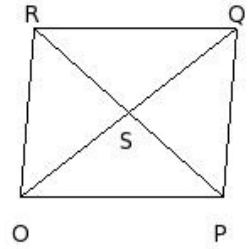
(i) SP (ii) QT (iii) QR (iv) PT (v) ST

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



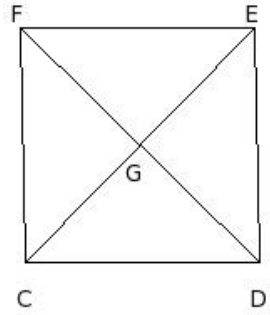
(i) RT (ii) QR (iii) QT (iv) ST (v) SP

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



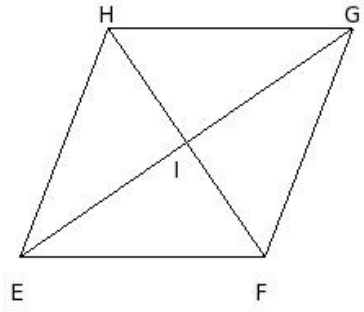
(i) OS (ii) PQ (iii) RS (iv) QS (v) RO

21. In rhombus CDEF, diagonals $\overline{CE}$ and $\overline{DF}$ intersect at G. Then $\overline{CD} \parallel$



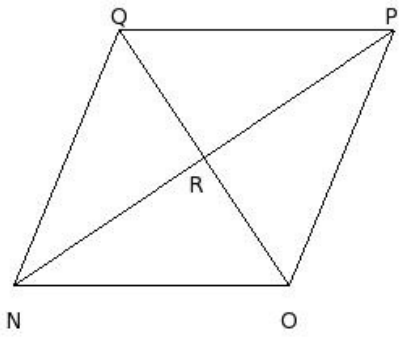
(i) $\overline{FC}$ (ii) $\overline{DF}$ (iii) $\overline{DE}$ (iv) $\overline{EF}$

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



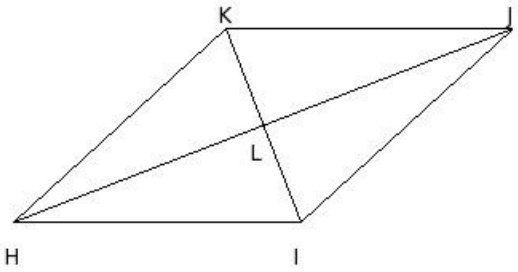
(i) $\overline{HE}$ (ii) $\overline{FH}$ (iii) $\overline{FG}$ (iv) $\overline{EF}$

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



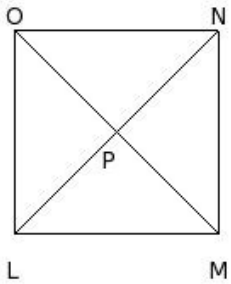
(i) $\overline{NO}$ (ii) $\overline{OQ}$ (iii) $\overline{PQ}$ (iv) $\overline{OP}$

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



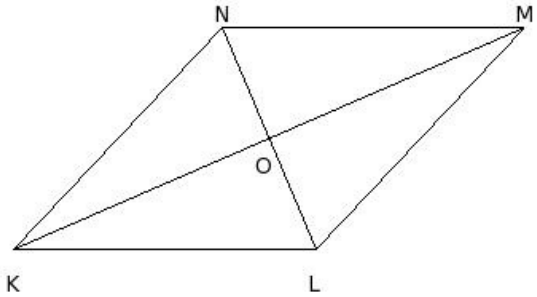
(i) $\overline{HI}$ (ii) $\overline{JK}$ (iii) $\overline{KH}$ (iv) $\overline{IK}$

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



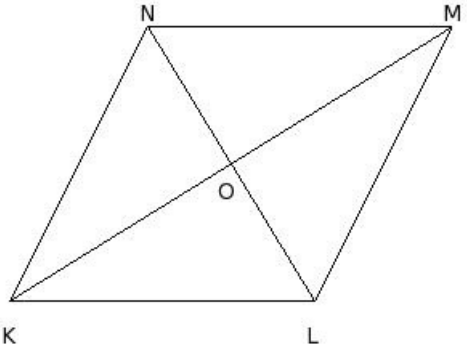
(i) NO (ii) MO (iii) OL (iv) MN

26. In rhombus KLMN, diagonals $\overline{KM}$ and $\overline{LN}$ intersect at O. Then $MN \neq$



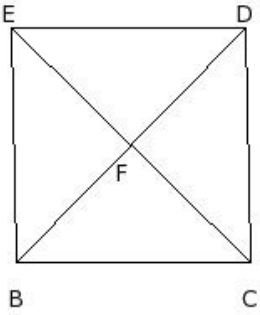
(i) LN (ii) NK (iii) LM (iv) KL

27. In rhombus KLMN, diagonals $\overline{KM}$ and $\overline{LN}$ intersect at O. Then $NK \neq$



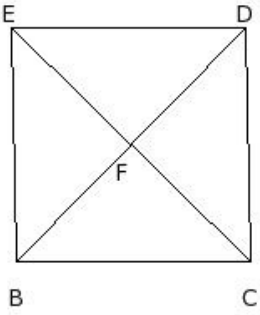
(i) MN (ii) LM (iii) LN (iv) KL

28. In rhombus BCDE, diagonals $\overline{BD}$ and $\overline{CE}$ intersect at F. Then $CD \neq$



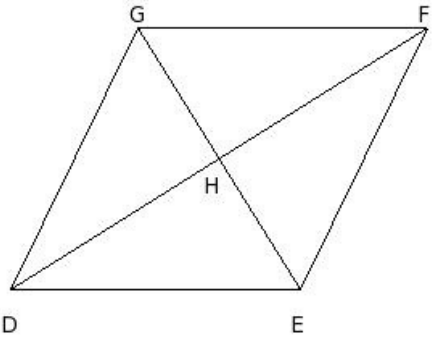
(i) BC (ii) CE (iii) DE (iv) EB

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



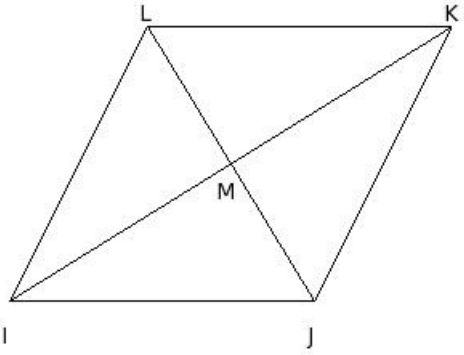
(i) $\triangle DEB$ (ii) $\triangle BCD$ (iii) $\triangle FBC$ (iv) $\triangle CDE$

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



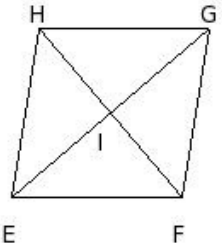
(i) $\triangle DEF$ (ii) $\triangle FGD$ (iii) $\triangle GDE$ (iv) $\triangle HDE$

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



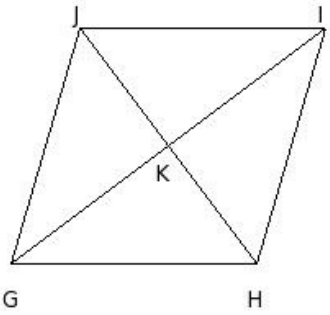
(i) $\triangle MIJ$ (ii) $\triangle JKL$ (iii) $\triangle LIJ$ (iv) $\triangle IJK$

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



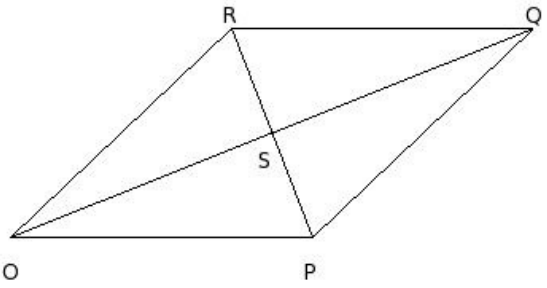
(i) $\triangle GHE$ (ii) $\triangle FGH$ (iii) $\triangle IEF$ (iv) $\triangle HEF$

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



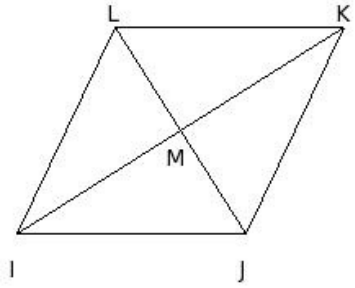
(i) $\triangle KIJ$ (ii) $\triangle JGH$ (iii) $\triangle KGJ$ (iv) $\triangle KIH$

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



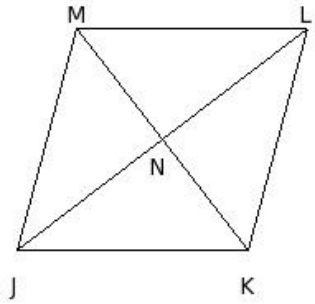
(i) $\triangle ROP$ (ii) $\triangle SQR$ (iii) $\triangle SOP$ (iv) $\triangle SOR$

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



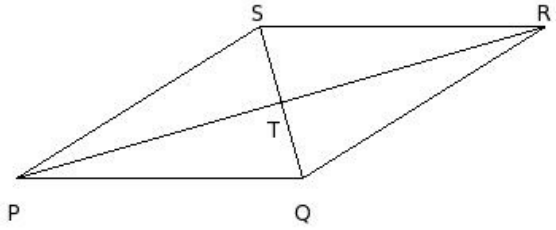
(i) $\triangle MIJ$ (ii) $\triangle MKJ$ (iii) $\triangle LIJ$ (iv) $\triangle MIL$

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



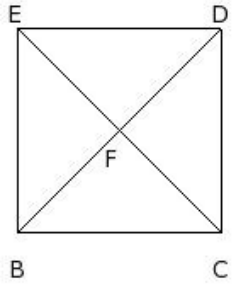
(i) $\triangle NLM$ (ii) $\triangle MJK$ (iii) $\triangle NLK$ (iv) $\triangle NJK$

37. In rhombus PQRS, diagonals $\overline{PR}$ and $\overline{QS}$ intersect at T. Then $\angle SPQ =$



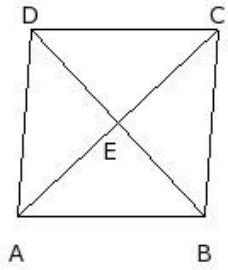
(i) $\angle QRS$ (ii) $\angle RSP$ (iii) $\angle PQT$ (iv) $\angle PQR$

38. In rhombus BCDE, diagonals $\overline{BD}$ and $\overline{CE}$ intersect at F. Then $\angle CDE =$



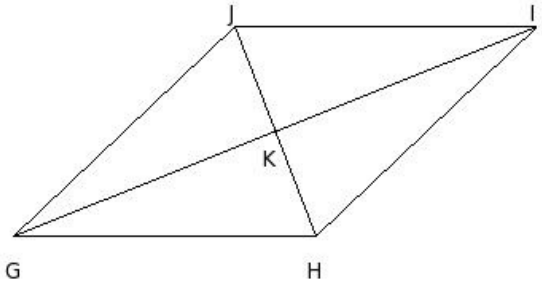
(i) $\angle EBC$ (ii) $\angle BCF$ (iii) $\angle DEB$ (iv) $\angle BCD$

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



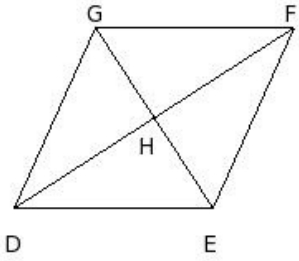
(i) $\angle ABE$ (ii) $\angle ABC$ (iii) $\angle BCD$ (iv) $\angle DAB$

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



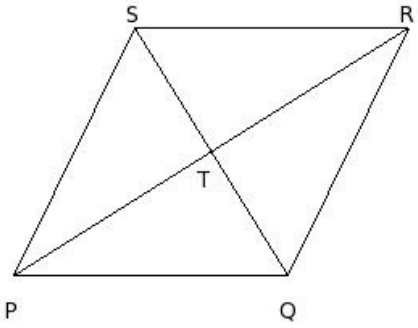
(i) $\angle IKH$ (ii) $\angle JKI$ (iii) $\angle JGH$ (iv) $\angle GKJ$

41. In rhombus DEFG, diagonals $\overline{DF}$ and $\overline{EG}$ intersect at H. Then $\angle GHF \neq$



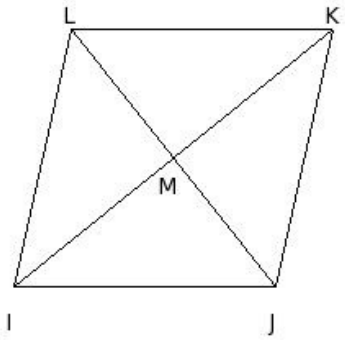
(i) $\angle GDE$ (ii) $\angle FHE$ (iii) $\angle DHG$ (iv) $\angle EHD$

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



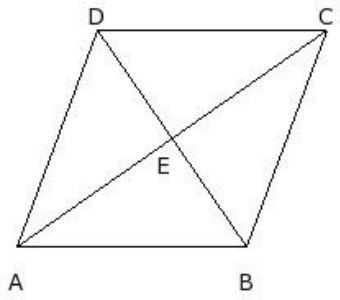
(i) $\angle STR$ (ii) $\angle SPQ$ (iii) $\angle QTP$ (iv) $\angle RTQ$

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



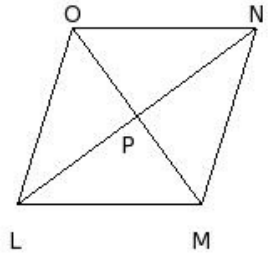
(i) $\angle LMK$ (ii) $\angle LIJ$ (iii) $\angle JMI$ (iv) $\angle IML$

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



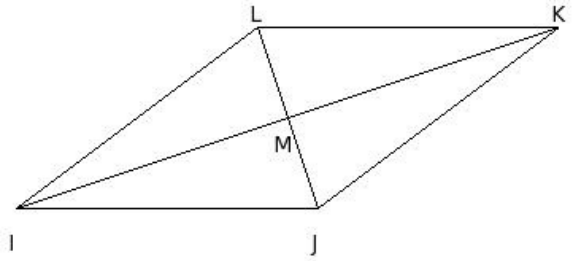
(i) $\angle DAE$ (ii) $\angle AED$ (iii) $\angle BCE$ (iv) $\angle ECD$

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



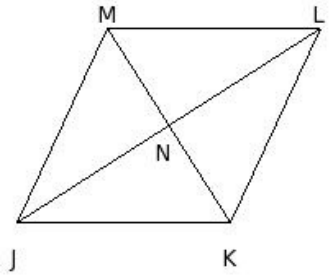
(i) $\angle PLM$ (ii) $\angle OLP$ (iii) $\angle LPO$ (iv) $\angle MNP$

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



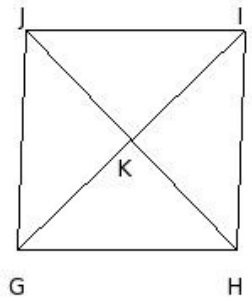
(i) $\angle IML$ (ii) $\angle MKL$ (iii) $\angle MIJ$ (iv) $\angle JKM$

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



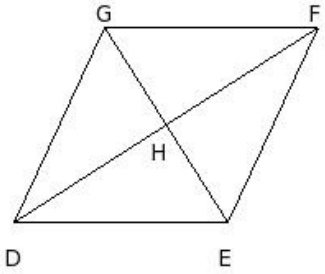
(i) $\angle NLM$ (ii) $\angle JNM$ (iii) $\angle NJK$ (iv) $\angle MJN$

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



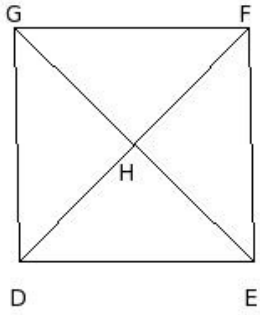
(i) $\angle GHK$ (ii) $\angle IJK$ (iii) $\angle KHI$ (iv) $\angle JKI$

49. In rhombus DEFG, diagonals $\overline{DF}$ and $\overline{EG}$ intersect at H. Then $\angle HEF \neq$



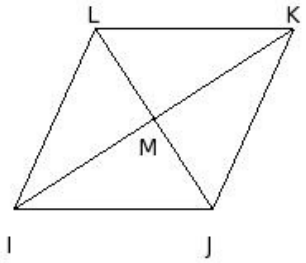
(i) $\angle HGD$ (ii) $\angle FGH$ (iii) $\angle GHF$ (iv) $\angle DEH$

50. In rhombus DEFG, diagonals $\overline{DF}$ and $\overline{EG}$ intersect at H. Then $\angle DEH \neq$



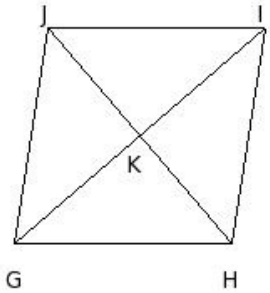
(i) $\angle FGH$ (ii) $\angle GHF$ (iii) $\angle HGD$ (iv) $\angle HEF$

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



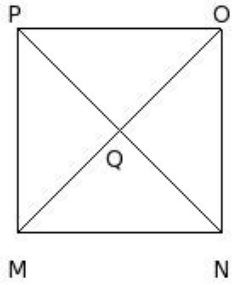
(i) $\angle LMK$ (ii) $\angle MJK$ (iii) $\angle IJM$ (iv) $\angle MLI$

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



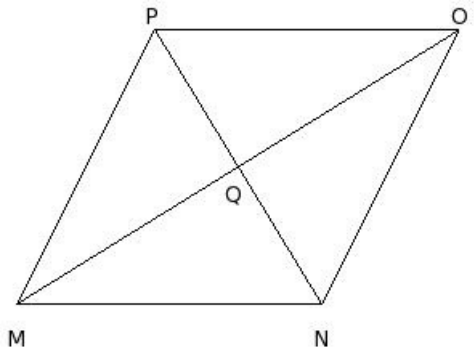
(i) GK (ii) IK (iii) HK (iv) JG

53. In rhombus MNOP, diagonals $\overline{MO}$ and $\overline{NP}$ intersect at Q. Then NQ =



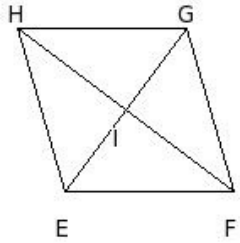
(i) MQ (ii) PM (iii) OQ (iv) PQ

54. In rhombus MNOP, diagonals $\overline{MO}$ and $\overline{NP}$ intersect at Q. Then MQ =



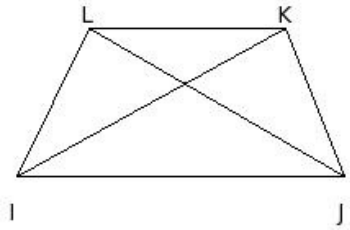
(i) OQ (ii) PQ (iii) PM (iv) NQ

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



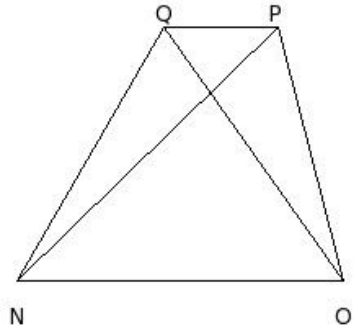
(i) HI (ii) HE (iii) FI (iv) EI

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



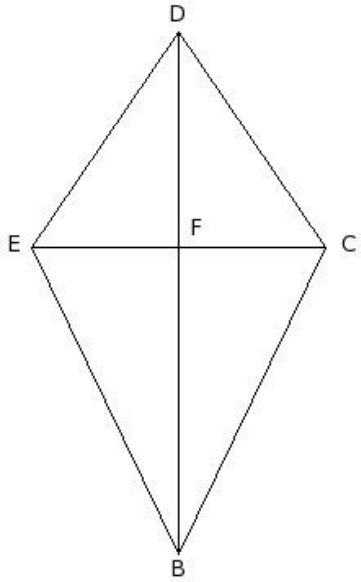
(i) $\overline{JL}$ (ii) $\overline{JK}$ (iii) $\overline{KL}$ (iv) $\overline{LI}$ (v) $\overline{IK}$

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



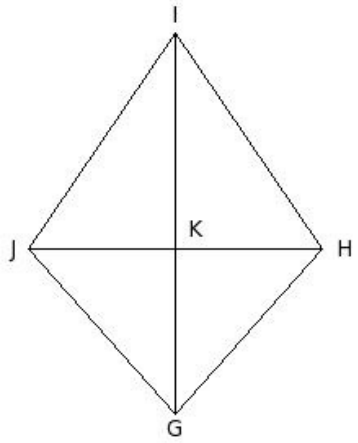
(i) $\overline{NP}$ (ii) $\overline{OQ}$ (iii) $\overline{OP}$ (iv) $\overline{NO}$ (v) $\overline{QN}$

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



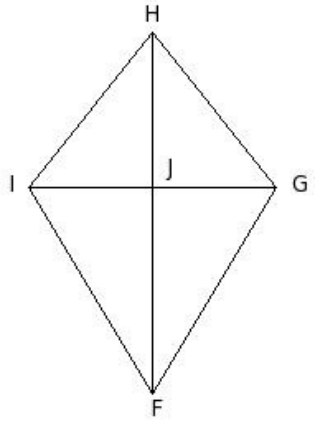
(i) CE (ii) DE (iii) EB (iv) CD (v) BD

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



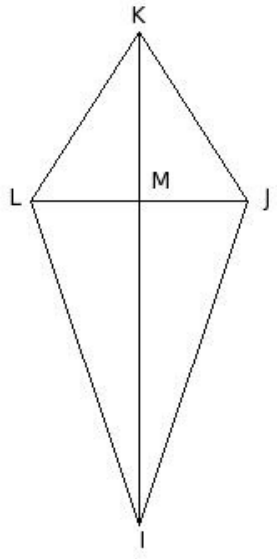
(i) HJ (ii) IJ (iii) GH (iv) HI (v) GI

60. In kite FGHI, $\overline{FH}$ and $\overline{GI}$ are diagonals. Then GH =



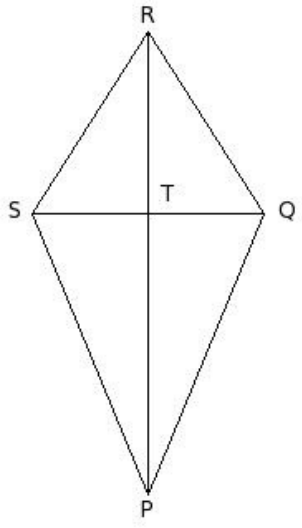
(i) FH (ii) IF (iii) FG (iv) HI (v) GI

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



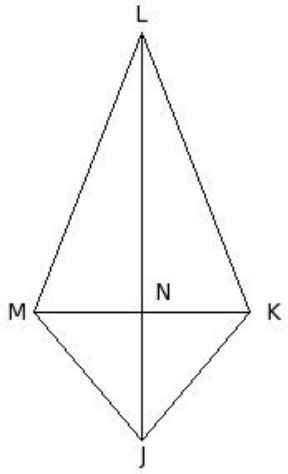
(i) IJ (ii) IK (iii) LI (iv) JL (v) JK

62. In kite PQRS, $\overline{PR}$ and $\overline{QS}$ are diagonals. Then ∠PQR =



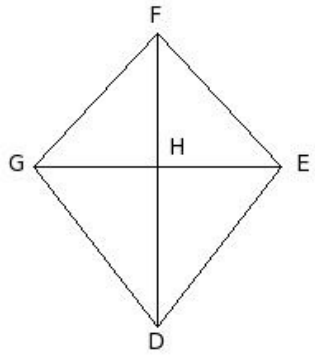
(i) ∠RSQ (ii) ∠RSP (iii) ∠PSQ (iv) ∠PTS (v) ∠PTQ

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



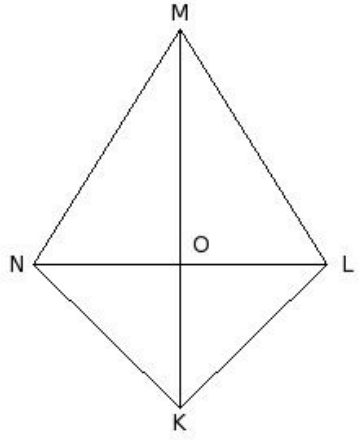
(i) $\angle JMK$ (ii) $\angle LMK$ (iii) $\angle JKL$ (iv) $\angle JNM$ (v) $\angle JNK$

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



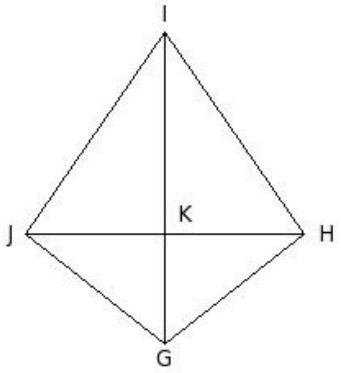
(i) $\angle FGE$ (ii) $\angle FGD$ (iii) $\angle DGE$ (iv) $\angle DEF$ (v) $\angle DHE$

65. In kite KLMN, $\overline{KM}$ and $\overline{LN}$ are diagonals. Then $\angle KOL =$



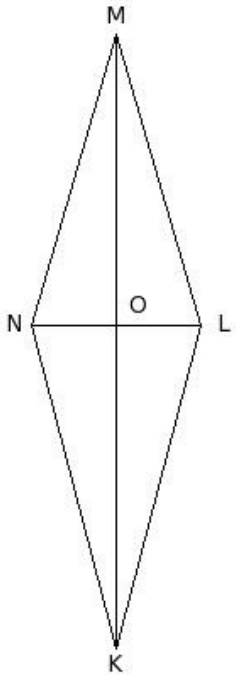
(i) $\angle KON$ (ii) $\angle MNK$ (iii) $\angle MNL$ (iv) $\angle KNL$ (v) $\angle KLM$

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



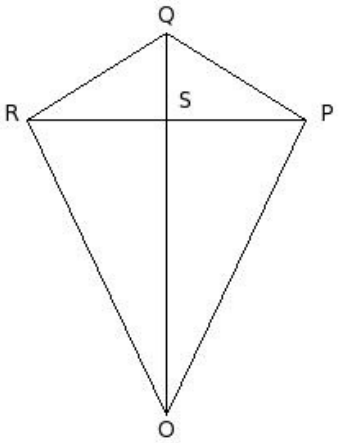
(i) $\triangle JHI$ (ii) $\triangle KIH$ (iii) $\triangle IHG$ (iv) $\triangle KJG$ (v) $\triangle JHG$

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



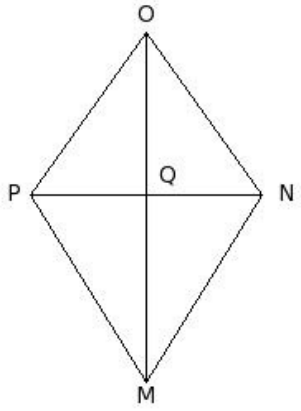
(i) $\triangle MNK$ (ii) $\triangle NLK$ (iii) $\triangle NLM$ (iv) $\triangle ONK$ (v) $\triangle OML$

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



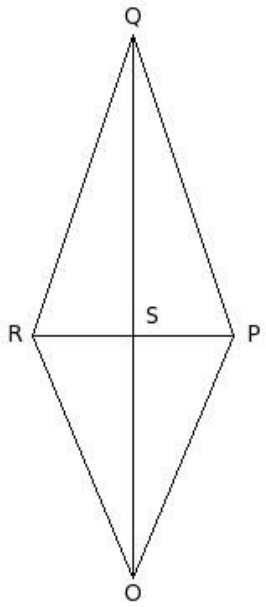
(i) $\triangle SQP$ (ii) $\triangle RPO$ (iii) $\triangle SQR$ (iv) $\triangle SPO$ (v) $\triangle RPQ$

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



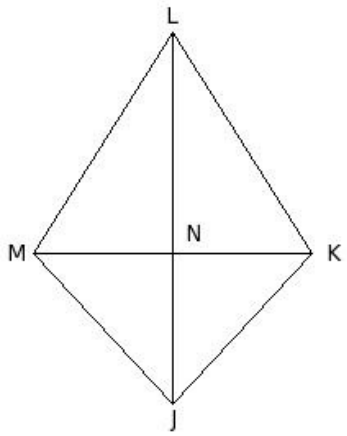
(i) $\triangle QPM$ (ii) $\triangle PNO$ (iii) $\triangle PNM$ (iv) $\triangle QOP$ (v) $\triangle QON$

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



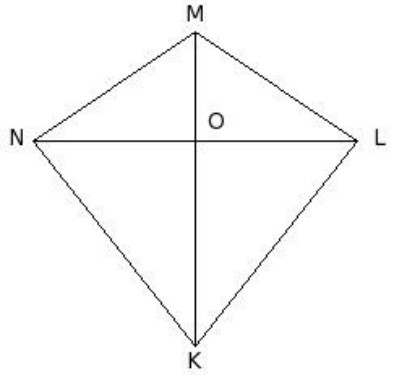
(i) $\triangle RPQ$ (ii) $\triangle SPO$ (iii) $\triangle SRO$ (iv) $\triangle RPO$ (v) $\triangle SQP$

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



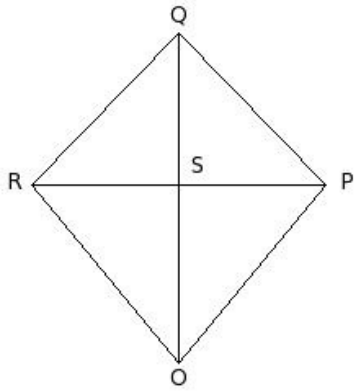
(i) $\triangle MKL$ (ii) $\triangle NKJ$ (iii) $\triangle NMJ$ (iv) $\triangle NLM$ (v) $\triangle MKJ$

72. In kite KLMN, $\overline{KM}$ and $\overline{LN}$ are diagonals. Then $\angle NKO =$



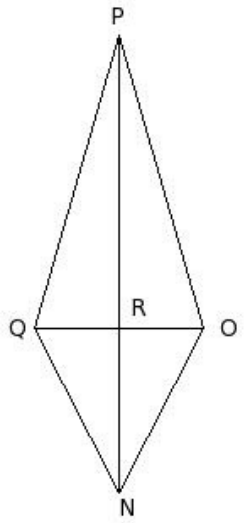
(i) $\angle OMN$ (ii) $\angle LKO$ (iii) $\angle NOM$ (iv) $\angle KON$ (v) $\angle OML$

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



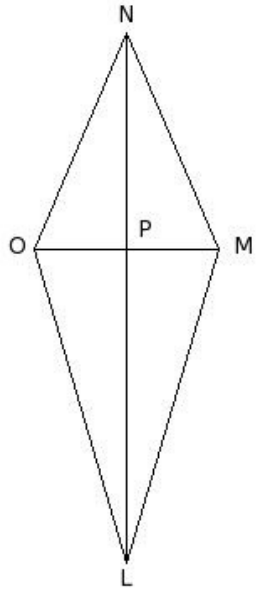
(i) $\angle ROS$ (ii) $\angle OSR$ (iii) $\angle SQP$ (iv) $\angle RSQ$ (v) $\angle SQR$

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



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

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



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

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

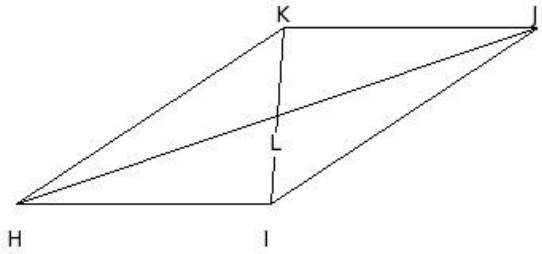
a) L is the mid point of $\overline{IK}$

b) $IL = LH$

c) $\triangle LHI \cong \triangle LJK$

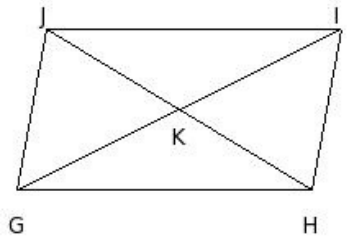
d) $\angle ILH = \angle KLJ$

e) $\triangle IKH \cong \triangle JKH$



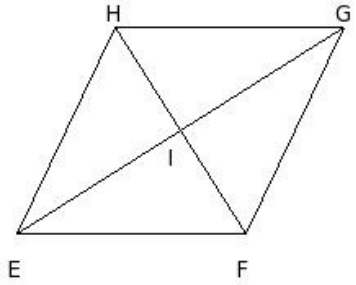
(i) {b,e,d} (ii) {b,a} (iii) {e,c} (iv) {b,a,c} (v) {a,c,d}

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



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

78. In rhombus EFGH, diagonals $\overline{EG}$ and $\overline{FH}$ intersect at I. Then $\angle EFG =$



(i) $\angle EFI$ (ii) $\angle FGH$ (iii) $\angle HEF$ (iv) $\angle GHE$

Assignment Key

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