EduSahara™ Assignment

Name : Quadrilateral Properties Using Diagrams

Chapter : Quadrilaterals

Grade : SSC Grade IX

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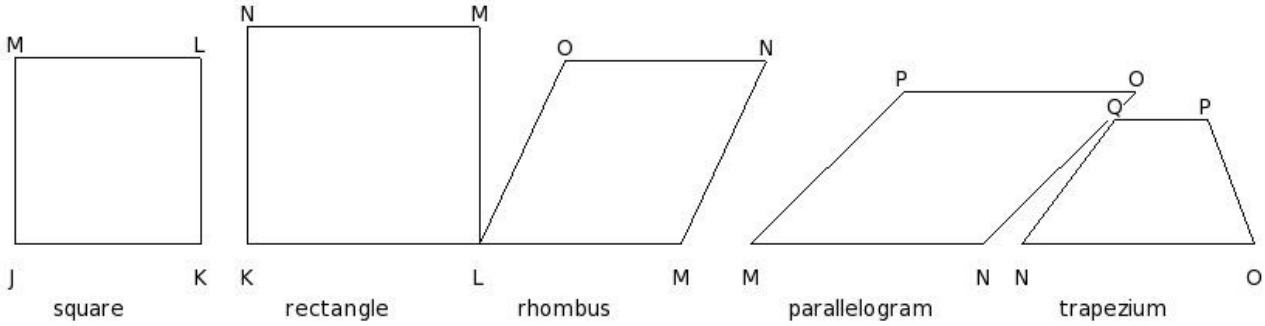
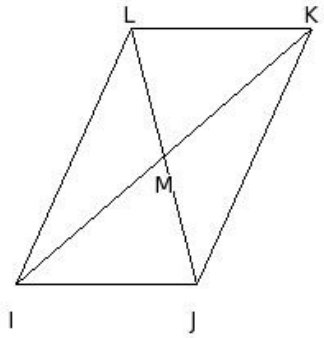
1. Which of the following figures is a regular quadrilateral?



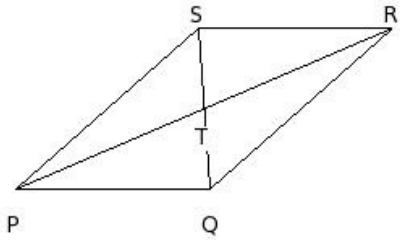
(i) rectangle (ii) rhombus (iii) parallelogram (iv) square (v) trapezium

2. In parallelogram IJKL, diagonals $\overline{JL}$ and $\overline{IK}$ intersect at M. Then $\overline{IJ} \parallel$



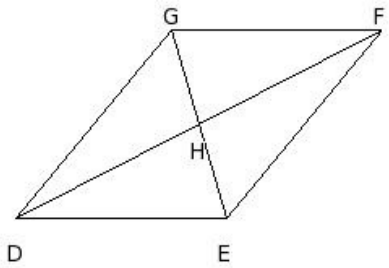
(i) $\overline{JK}$ (ii) $\overline{IK}$ (iii) $\overline{KL}$ (iv) $\overline{JL}$ (v) $\overline{LI}$

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



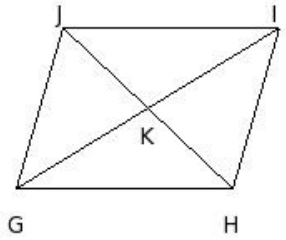
(i) $\overline{SP}$ (ii) $\overline{QS}$ (iii) $\overline{PR}$ (iv) $\overline{PQ}$ (v) $\overline{QR}$

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



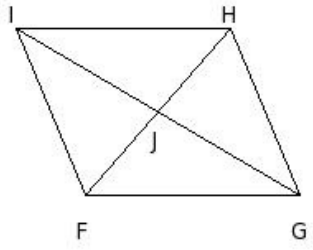
(i) $\overline{DF}$ (ii) $\overline{FG}$ (iii) $\overline{EG}$ (iv) $\overline{EF}$ (v) $\overline{DE}$

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



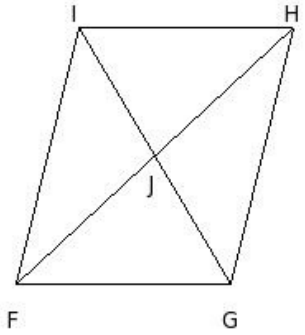
(i) $\overline{JG}$ (ii) $\overline{GI}$ (iii) $\overline{IJ}$ (iv) $\overline{HJ}$ (v) $\overline{GH}$

6. In parallelogram FGHI, diagonals $\overline{GI}$ and $\overline{FH}$ intersect at J. Then FG =



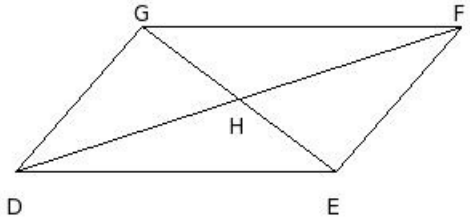
(i) GH (ii) IF (iii) FH (iv) HI (v) GI

7. In parallelogram FGHI, diagonals $\overline{GI}$ and $\overline{FH}$ intersect at J. Then HI =



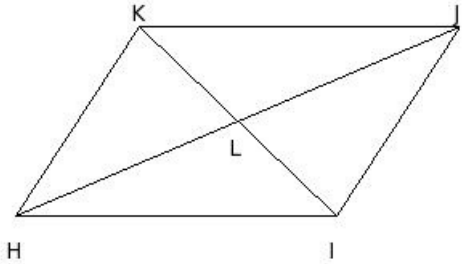
(i) GH (ii) FG (iii) IF (iv) GI (v) FH

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



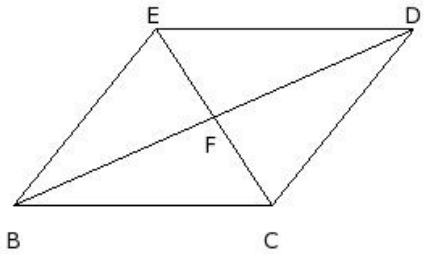
(i) DE (ii) EF (iii) EG (iv) DF (v) FG

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



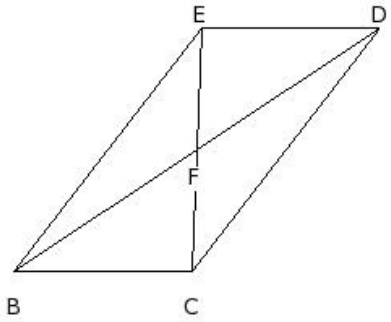
(i) JK (ii) HJ (iii) IK (iv) KH (v) HI

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



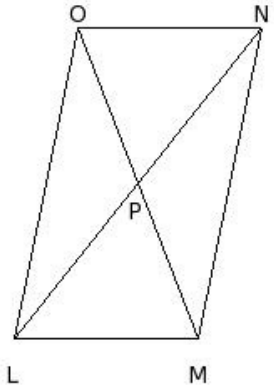
(i) $\triangle CDE$ (ii) $\triangle DEB$ (iii) $\triangle BCD$ (iv) $\triangle BCF$ (v) $\triangle DEF$

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



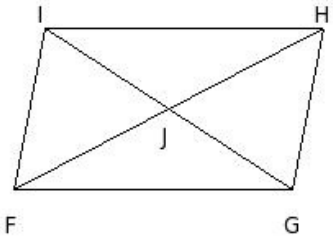
(i) $\triangle DEF$ (ii) $\triangle BCF$ (iii) $\triangle EBC$ (iv) $\triangle DEB$ (v) $\triangle BCD$

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



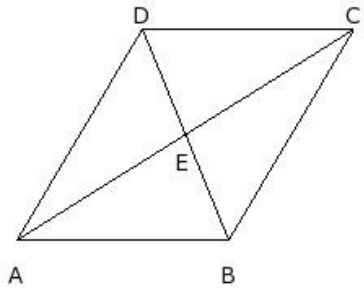
(i) $\triangle LMN$ (ii) $\triangle OLM$ (iii) $\triangle LMP$ (iv) $\triangle NOP$ (v) $\triangle MNO$

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



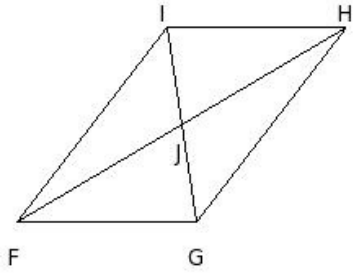
(i) $\triangle IFG$ (ii) $\triangle GHI$ (iii) $\triangle HIJ$ (iv) $\triangle HIF$ (v) $\triangle FGJ$

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



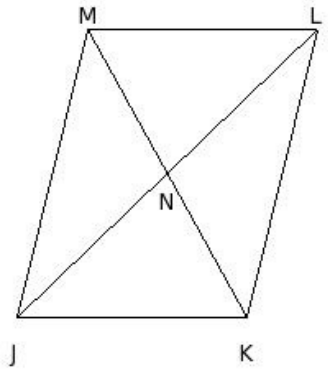
(i) $\angle CDE$ (ii) $\angle ABC$ (iii) $\angle ABE$ (iv) $\angle BCD$ (v) $\angle CDA$

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



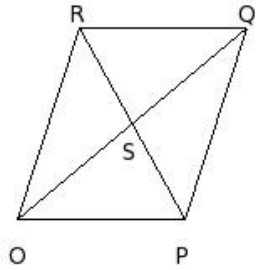
(i) $\angle FGH$ (ii) $\angle HIF$ (iii) $\angle IFG$ (iv) $\angle HIJ$ (v) $\angle FGJ$

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



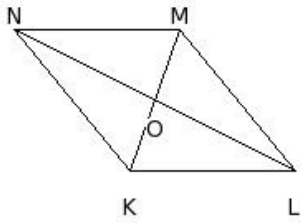
(i) $\angle JKN$ (ii) $\angle MJK$ (iii) $\angle LMJ$ (iv) $\angle KLM$ (v) $\angle LMN$

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



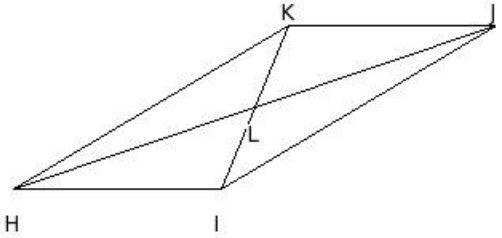
(i) $\angle OPS$ (ii) $\angle OPQ$ (iii) $\angle ROP$ (iv) $\angle PQR$ (v) $\angle QRS$

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



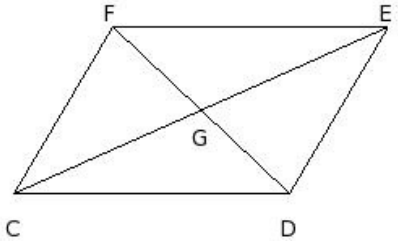
(i) LO (ii) LM (iii) NO (iv) NK (v) KO

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



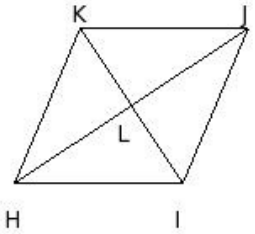
(i) IJ (ii) KH (iii) KL (iv) JL (v) IL

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



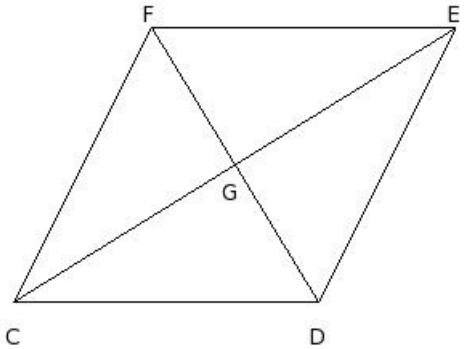
(i) CG (ii) FC (iii) FG (iv) EG (v) DE

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



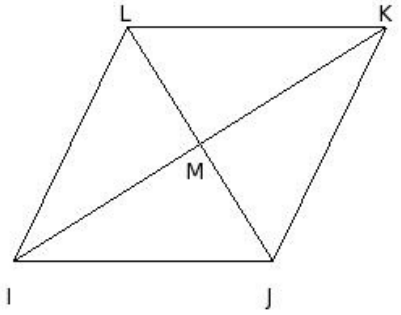
(i) $\overline{JK}$ (ii) $\overline{KH}$ (iii) $\overline{IJ}$ (iv) $\overline{IK}$

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



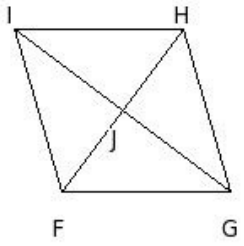
(i) $\overline{FC}$ (ii) $\overline{DF}$ (iii) $\overline{CD}$ (iv) $\overline{DE}$

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



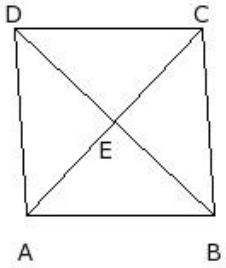
(i) $\overline{JL}$ (ii) $\overline{JK}$ (iii) $\overline{IJ}$ (iv) $\overline{KL}$

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



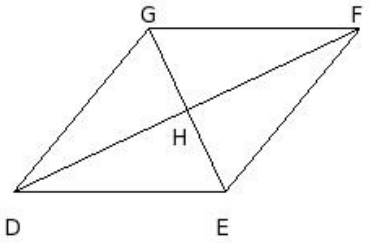
(i) $\overline{HI}$ (ii) $\overline{FG}$ (iii) $\overline{IF}$ (iv) $\overline{GI}$

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



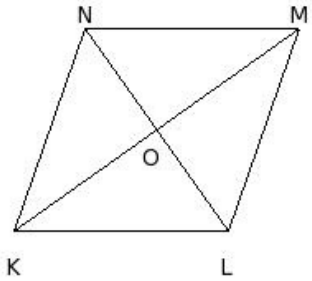
(i) CD (ii) BD (iii) DA (iv) BC

26. In rhombus DEFG, diagonals $\overline{DF}$ and $\overline{EG}$ intersect at H. Then $FG \neq$



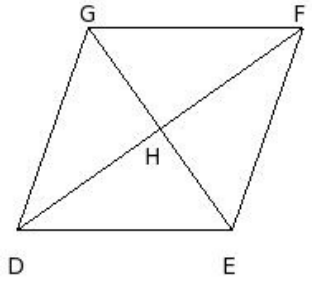
(i) GD (ii) EF (iii) EG (iv) DE

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



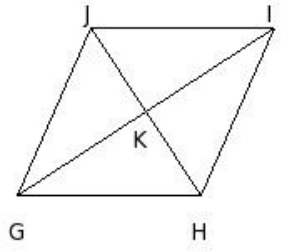
(i) KL (ii) MN (iii) LM (iv) LN

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



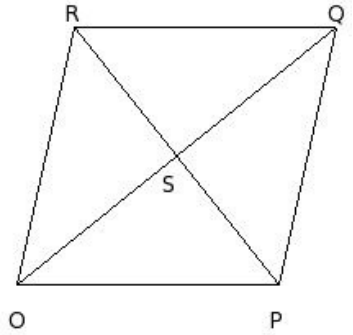
(i) GD (ii) FG (iii) EG (iv) DE

29. In rhombus GHIJ, diagonals $\overline{GI}$ and $\overline{HJ}$ intersect at K. Then △JGH ≅



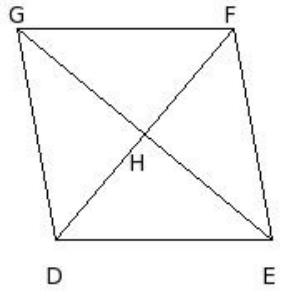
(i) △KGH (ii) △GHI (iii) △HIJ (iv) △IJG

30. In rhombus OPQR, diagonals $\overline{OQ}$ and $\overline{PR}$ intersect at S. Then △PQR ≅



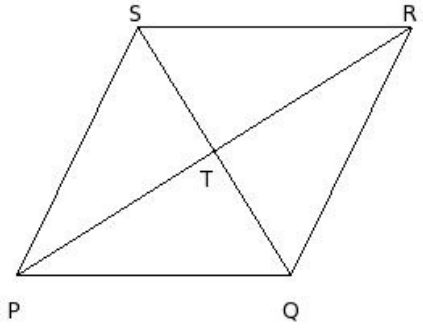
(i) △OPQ (ii) △QRO (iii) △SOP (iv) △ROP

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



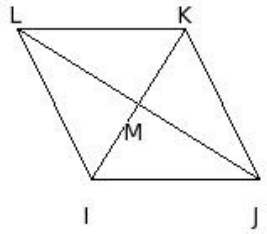
(i) △DEF (ii) △HDE (iii) △GDE (iv) △EFG

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



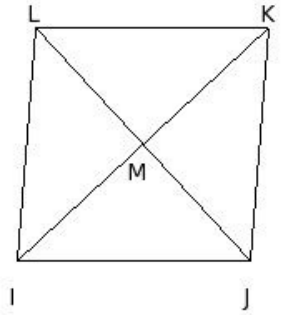
(i) $\triangle SPQ$ (ii) $\triangle QRS$ (iii) $\triangle TPQ$ (iv) $\triangle RSP$

33. In rhombus IJKL, diagonals $\overline{IK}$ and $\overline{JL}$ intersect at M. Then $\triangle MIJ \ncong$



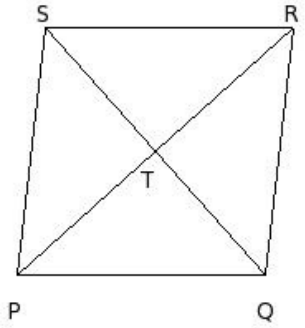
(i) $\triangle MKJ$ (ii) $\triangle MKL$ (iii) $\triangle MIL$ (iv) $\triangle LIJ$

34. In rhombus IJKL, diagonals $\overline{IK}$ and $\overline{JL}$ intersect at M. Then $\triangle MKJ \ncong$



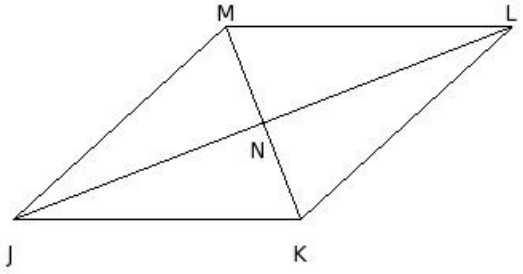
(i) $\triangle MIL$ (ii) $\triangle MIJ$ (iii) $\triangle LIJ$ (iv) $\triangle MKL$

35. In rhombus PQRS, diagonals $\overline{PR}$ and $\overline{QS}$ intersect at T. Then $\triangle TRS \ncong$



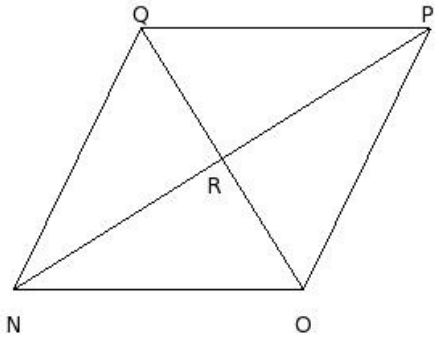
(i) $\triangle TRQ$ (ii) $\triangle TPS$ (iii) $\triangle SPQ$ (iv) $\triangle TPQ$

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



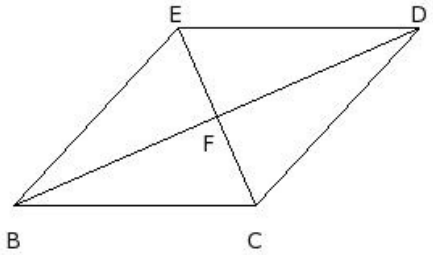
(i) $\triangle NLM$ (ii) $\triangle NLK$ (iii) $\triangle MJK$ (iv) $\triangle NJK$

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



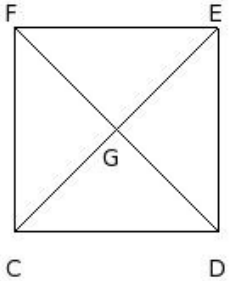
(i) $\angle PQN$ (ii) $\angle OPQ$ (iii) $\angle NOR$ (iv) $\angle NOP$

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



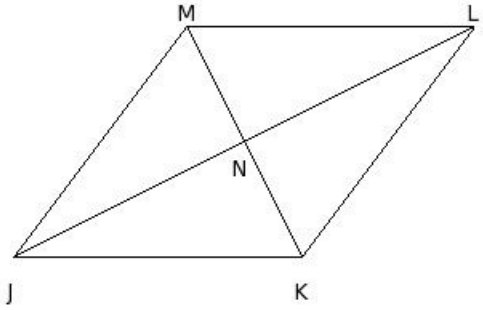
(i) $\angle DEB$ (ii) $\angle BCF$ (iii) $\angle BCD$ (iv) $\angle EBC$

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



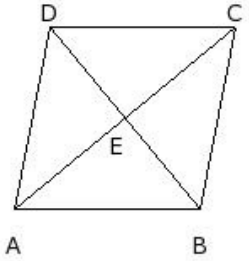
(i) $\angle FCD$ (ii) $\angle CDE$ (iii) $\angle CDG$ (iv) $\angle DEF$

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



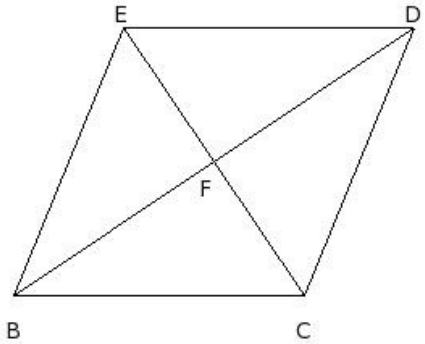
(i) $\angle MNL$ (ii) $\angle JNM$ (iii) $\angle MJK$ (iv) $\angle LNK$

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



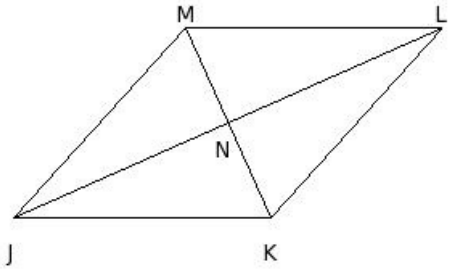
(i) $\angle CEB$ (ii) $\angle BEA$ (iii) $\angle AED$ (iv) $\angle DAB$

42. In rhombus $BCDE$, diagonals $\overline{BD}$ and $\overline{CE}$ intersect at F. Then $\angle BFE \neq$



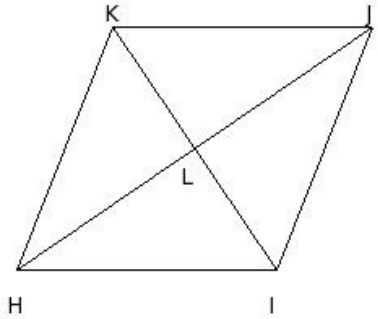
(i) $\angle DFC$ (ii) $\angle EFD$ (iii) $\angle CFB$ (iv) $\angle EBC$

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



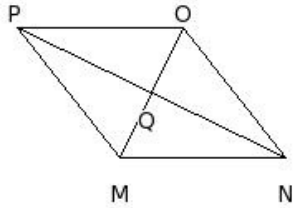
(i) $\angle KNJ$ (ii) $\angle JNM$ (iii) $\angle MJK$ (iv) $\angle MNL$

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



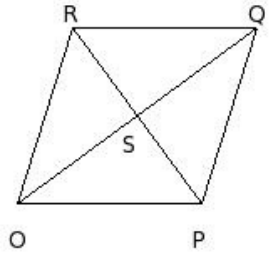
(i) $\angle KHL$ (ii) $\angle LJK$ (iii) $\angle IJL$ (iv) $\angle HLK$

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



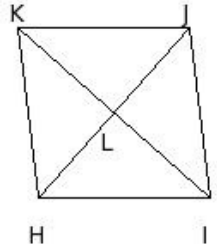
(i) $\angle MQP$ (ii) $\angle PMQ$ (iii) $\angle NOQ$ (iv) $\angle QMN$

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



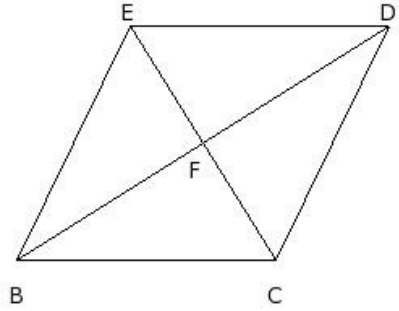
(i) $\angle SQR$ (ii) $\angle SOP$ (iii) $\angle OSR$ (iv) $\angle PQS$

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



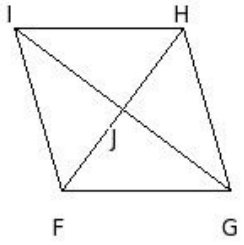
(i) $\angle LJK$ (ii) $\angle HLK$ (iii) $\angle LHI$ (iv) $\angle KHL$

48. In rhombus BCDE, diagonals $\overline{BD}$ and $\overline{CE}$ intersect at F. Then $\angle FEB \neq$



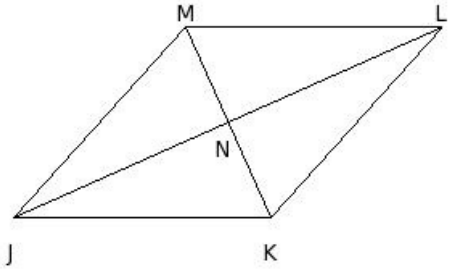
(i) $\angle DEF$ (ii) $\angle FCD$ (iii) $\angle EFD$ (iv) $\angle BCF$

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



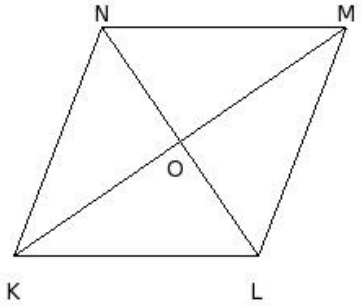
(i) $\angle IJH$ (ii) $\angle HIJ$ (iii) $\angle FGJ$ (iv) $\angle JIF$

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



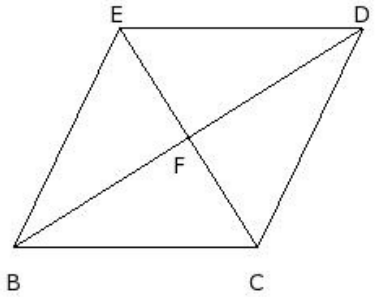
(i) $\angle MNL$ (ii) $\angle NMJ$ (iii) $\angle LMN$ (iv) $\angle NKL$

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



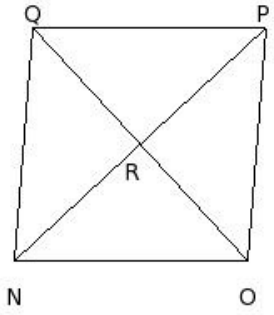
(i) $\angle ONK$ (ii) $\angle NOM$ (iii) $\angle KLO$ (iv) $\angle OLM$

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



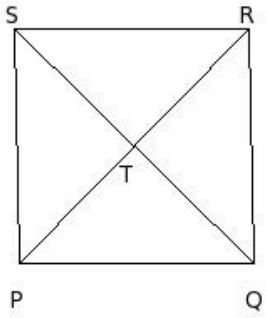
(i) EB (ii) BF (iii) DF (iv) CF

53. In rhombus NOPQ, diagonals $\overline{NP}$ and $\overline{OQ}$ intersect at R. Then OR =



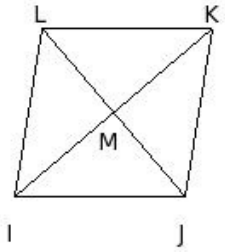
(i) PR (ii) QN (iii) QR (iv) NR

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



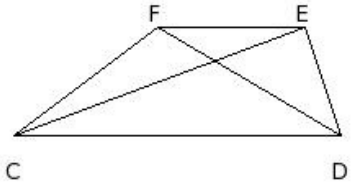
(i) ST (ii) RT (iii) QT (iv) SP

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



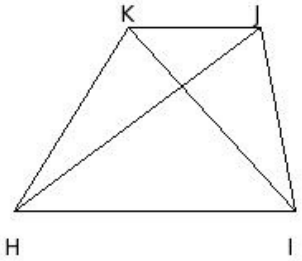
(i) LM (ii) IM (iii) JM (iv) LI

56. In trapezium CDEF, $\overline{CE}$ and $\overline{DF}$ are diagonals. Then $\overline{CD} \parallel$



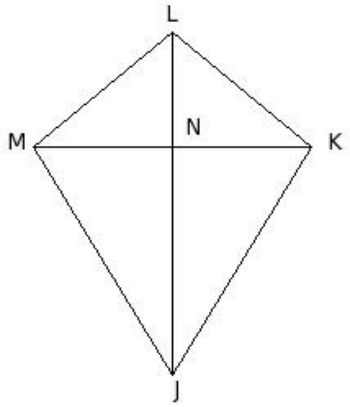
(i) $\overline{CE}$ (ii) $\overline{FC}$ (iii) $\overline{DE}$ (iv) $\overline{EF}$ (v) $\overline{DF}$

57. In trapezium HIJK, $\overline{HJ}$ and $\overline{IK}$ are diagonals. Then $\overline{JK} \parallel$



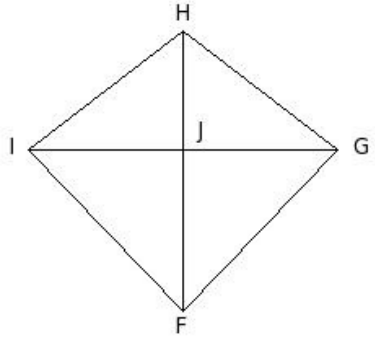
(i) $\overline{IJ}$ (ii) $\overline{IK}$ (iii) $\overline{HI}$ (iv) $\overline{KH}$ (v) $\overline{HJ}$

58. In kite JKLM, $\overline{JL}$ and $\overline{KM}$ are diagonals. Then JK =



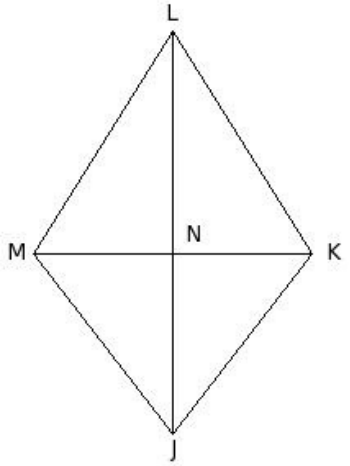
(i) LM (ii) KL (iii) JL (iv) KM (v) MJ

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



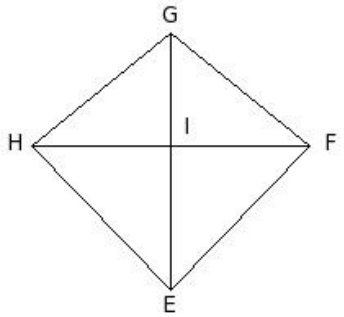
(i) FH (ii) GI (iii) HI (iv) FG (v) GH

60. In kite JKLM, $\overline{JL}$ and $\overline{KM}$ are diagonals. Then KL =



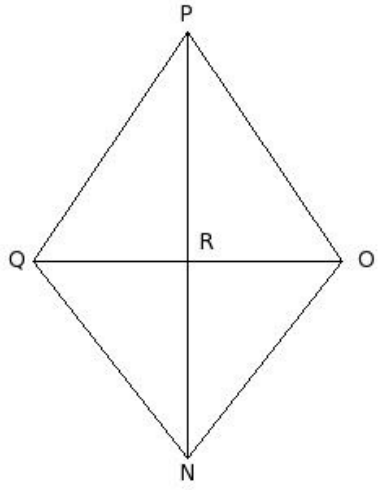
(i) JL (ii) LM (iii) KM (iv) JK (v) MJ

61. In kite EFGH, $\overline{EG}$ and $\overline{FH}$ are diagonals. Then GH =



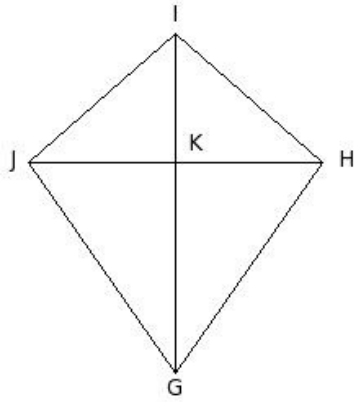
(i) EG (ii) HE (iii) EF (iv) FH (v) FG

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



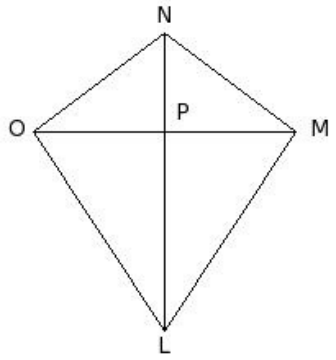
(i) $\angle NRO$ (ii) $\angle PQO$ (iii) $\angle PQN$ (iv) $\angle NQO$ (v) $\angle NRQ$

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



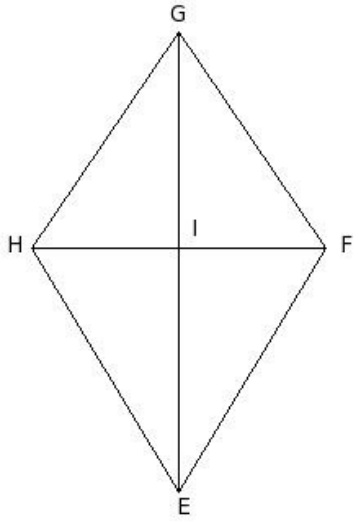
(i) $\angle GJH$ (ii) $\angle IJH$ (iii) $\angle GHI$ (iv) $\angle GKJ$ (v) $\angle GKH$

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



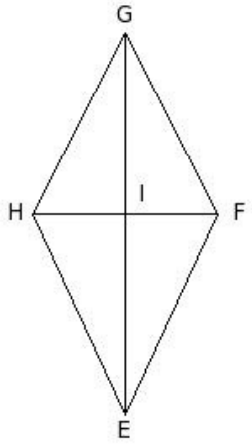
(i) $\angle NOL$ (ii) $\angle NOM$ (iii) $\angle LMN$ (iv) $\angle LOM$ (v) $\angle LPM$

65. In kite EFGH, $\overline{EG}$ and $\overline{FH}$ are diagonals. Then $\angle EIF =$



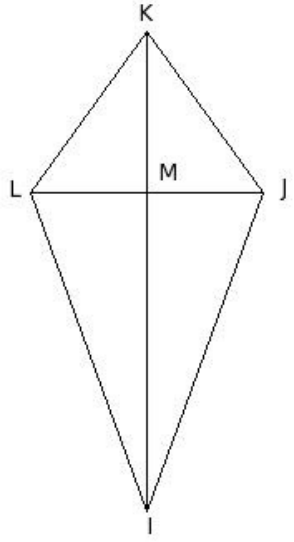
(i) $\angle EFG$ (ii) $\angle EIH$ (iii) $\angle GHF$ (iv) $\angle GHE$ (v) $\angle EHF$

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



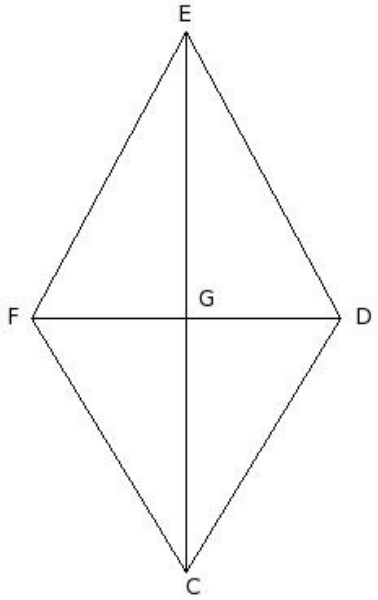
(i) $\triangle HFE$ (ii) $\triangle HFG$ (iii) $\triangle GFE$ (iv) $\triangle IHE$ (v) $\triangle IGF$

67. In kite IJKL, $\overline{IK}$ and $\overline{JL}$ are diagonals. Then $\triangle KJI \cong$



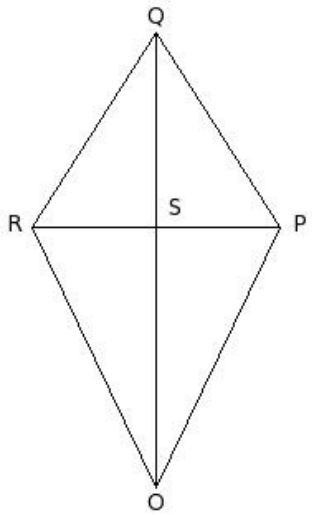
(i) $\triangle MLI$ (ii) $\triangle MKJ$ (iii) $\triangle LJK$ (iv) $\triangle KLI$ (v) $\triangle LJI$

68. In kite CDEF, $\overline{CE}$ and $\overline{DF}$ are diagonals. Then $\triangle GFC \cong$



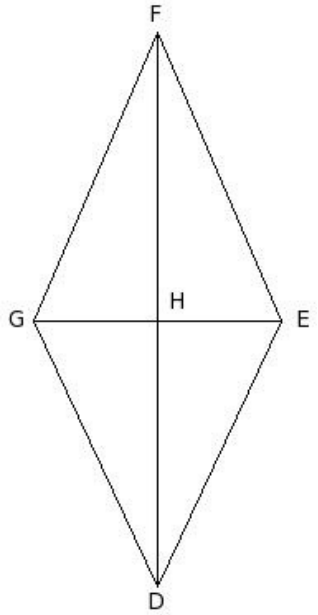
(i) $\triangle FDC$ (ii) $\triangle FDE$ (iii) $\triangle GED$ (iv) $\triangle GEF$ (v) $\triangle GDC$

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



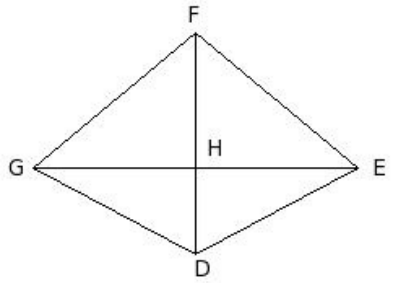
(i) $\triangle RPQ$ (ii) $\triangle RPO$ (iii) $\triangle SQP$ (iv) $\triangle SQR$ (v) $\triangle SRO$

70. In kite DEFG, $\overline{DF}$ and $\overline{EG}$ are diagonals. Then $\triangle HFG \cong$



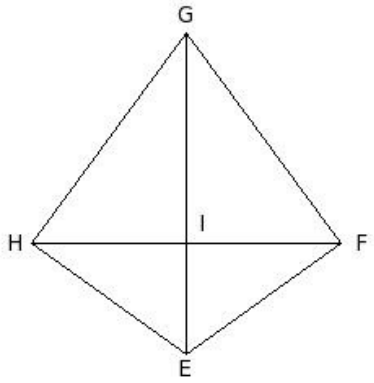
(i) $\triangle GED$ (ii) $\triangle HFE$ (iii) $\triangle HED$ (iv) $\triangle HGD$ (v) $\triangle GEF$

71. In kite DEFG, $\overline{DF}$ and $\overline{EG}$ are diagonals. Then $\triangle HFE \cong$



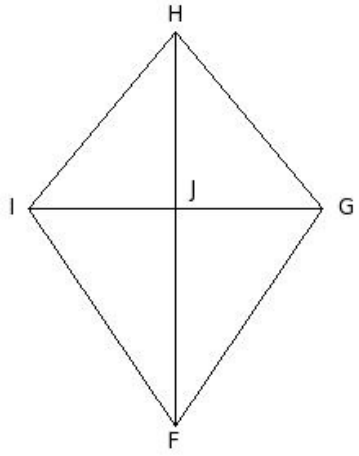
(i) $\triangle HGD$ (ii) $\triangle HFG$ (iii) $\triangle GED$ (iv) $\triangle GEF$ (v) $\triangle HED$

72. In kite EFGH, $\overline{EG}$ and $\overline{FH}$ are diagonals. Then $\angle HEI =$



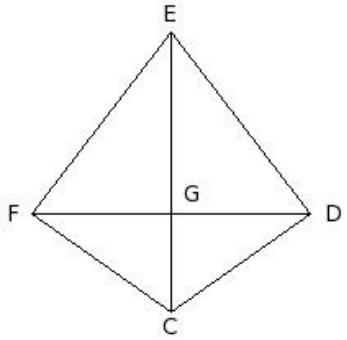
(i) $\angle IGH$ (ii) $\angle EIH$ (iii) $\angle IGF$ (iv) $\angle FEI$ (v) $\angle HIG$

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



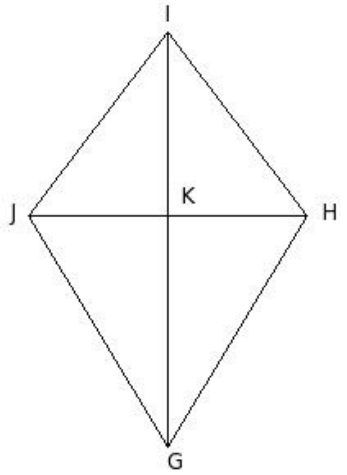
(i) $\angle JHG$ (ii) $\angle IFJ$ (iii) $\angle JHI$ (iv) $\angle FJI$ (v) $\angle IJH$

74. In kite CDEF, $\overline{CE}$ and $\overline{DF}$ are diagonals. Then $\angle GEF =$



(i) $\angle DCG$ (ii) $\angle FGE$ (iii) $\angle CGF$ (iv) $\angle FCG$ (v) $\angle GED$

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



(i) $\angle GKJ$ (ii) $\angle JGK$ (iii) $\angle JKI$ (iv) $\angle KIJ$ (v) $\angle HGK$

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

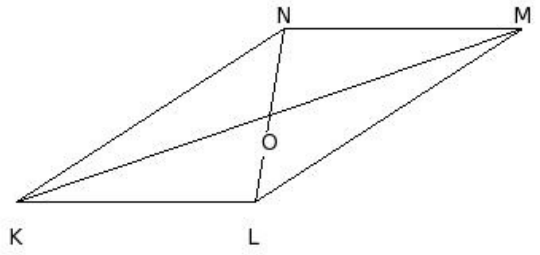
a) $LO = OM$

b) $\overline{NK} \parallel \overline{LM}$

c) $\angle LMN = \angle NKL$

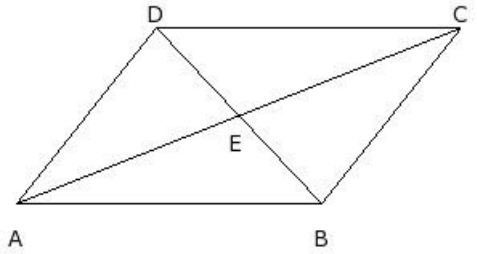
d) $\triangle LNK \cong \triangle MNK$

e) $LO = NO$



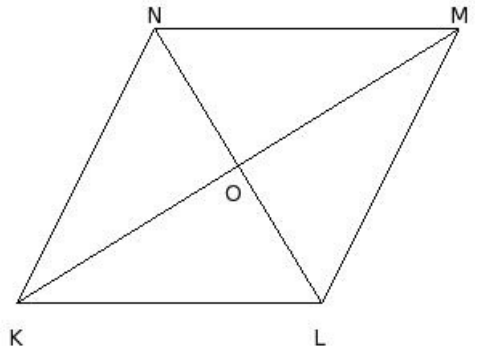
(i) {a,b} (ii) {d,c} (iii) {a,b,c} (iv) {b,c,e} (v) {a,d,e}

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



(i) BE (ii) BC (iii) CE (iv) AE (v) DA

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



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

Assignment Key

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

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