EduSahara™ Assignment

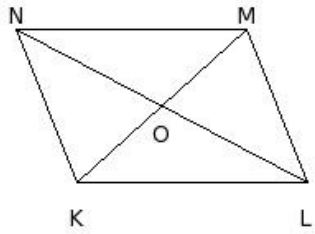
Name : Quadrilateral Properties Using Diagrams

Chapter : Quadrilaterals

Grade : CBSE Grade IX

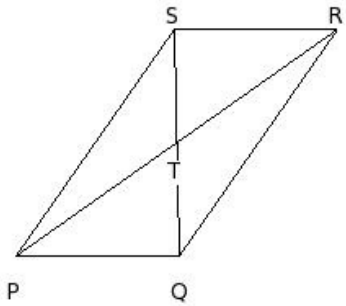
1. In the given parallelogram, which of the following statements are true?

   a) LO = OK
   b) LO = OM
   c) △OKL ≅ △OMN
   d) ∠LOK = ∠NOM
   e) ∠LMN = ∠NKL



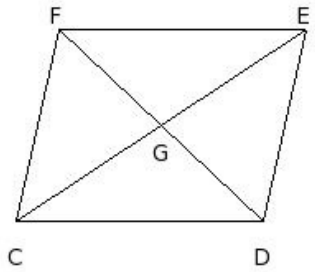
   (i) {c,d,e} (ii) {b,d} (iii) {a,c,d} (iv) {a,c} (v) {a,b,e}

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



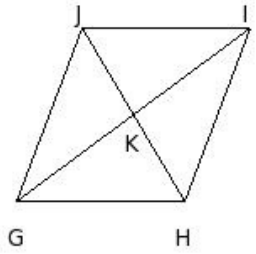
   (i) $\overline{QR}$ (ii) $\overline{QS}$ (iii) $\overline{RS}$ (iv) $\overline{SP}$ (v) $\overline{PR}$

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



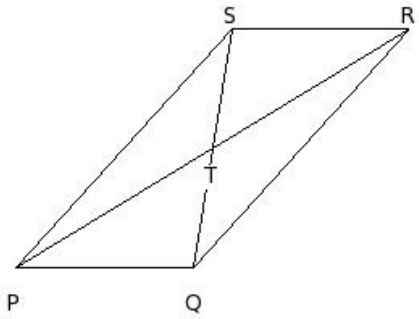
   (i) $\overline{CE}$ (ii) $\overline{DE}$ (iii) $\overline{FC}$ (iv) $\overline{CD}$ (v) $\overline{DF}$

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



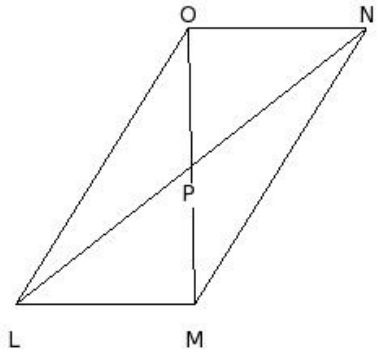
(i) $\overline{IJ}$ (ii) $\overline{GH}$ (iii) $\overline{HI}$ (iv) $\overline{GI}$ (v) $\overline{HJ}$

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



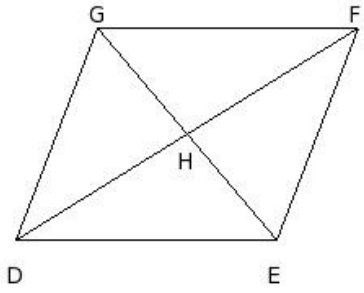
(i) $\overline{PR}$ (ii) $\overline{RS}$ (iii) $\overline{QS}$ (iv) $\overline{PQ}$ (v) $\overline{SP}$

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



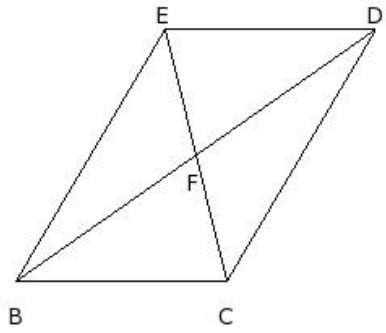
(i) LN (ii) OL (iii) MO (iv) NO (v) MN

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



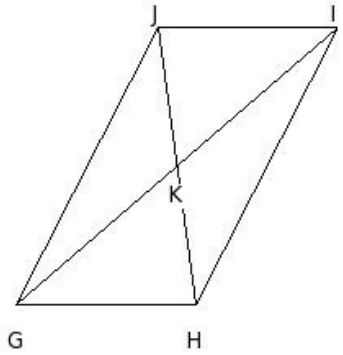
(i) EG (ii) EF (iii) DF (iv) DE (v) GD

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



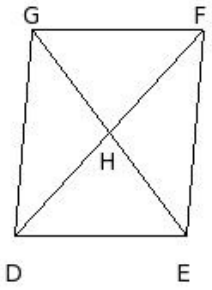
(i) CE (ii) BD (iii) DE (iv) BC (v) CD

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



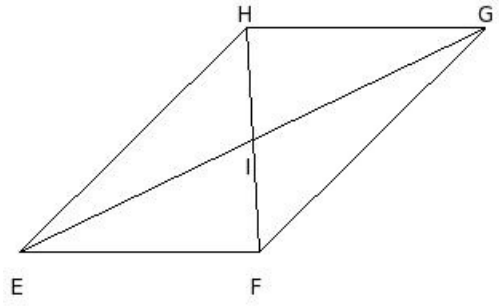
(i) GH (ii) IJ (iii) JG (iv) GI (v) HJ

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



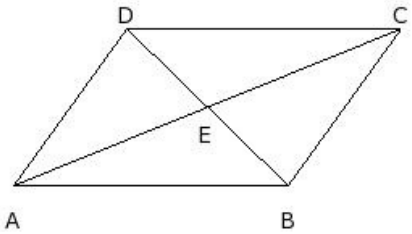
(i) $\triangle DEH$ (ii) $\triangle FGH$ (iii) $\triangle FGD$ (iv) $\triangle DEF$ (v) $\triangle EFG$

11. In parallelogram EFGH, diagonals $\overline{FH}$ and $\overline{EG}$ intersect at I. Then $\triangle FGH \cong$



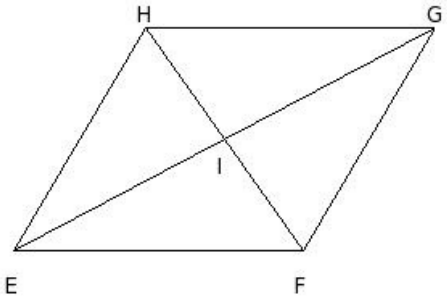
(i) $\triangle GHE$ (ii) $\triangle GHI$ (iii) $\triangle HEF$ (iv) $\triangle EFG$ (v) $\triangle EFI$

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



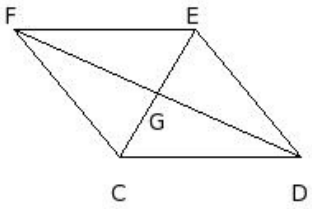
(i) $\triangle DAB$ (ii) $\triangle ABC$ (iii) $\triangle CDE$ (iv) $\triangle BCD$ (v) $\triangle ABE$

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



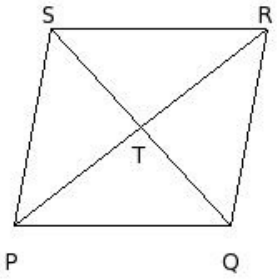
(i) $\triangle HEF$ (ii) $\triangle EFI$ (iii) $\triangle GHI$ (iv) $\triangle GHE$ (v) $\triangle FGH$

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



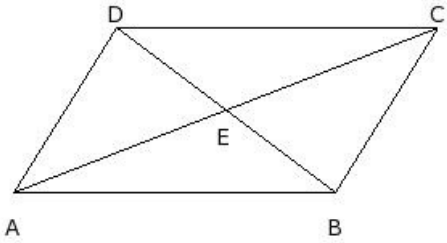
(i) $\angle CDE$ (ii) $\angle DEF$ (iii) $\angle CDG$ (iv) $\angle EFC$ (v) $\angle EFG$

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



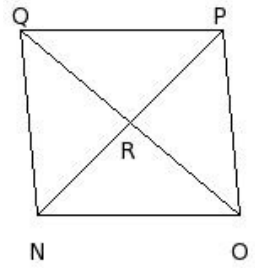
(i) $\angle RST$ (ii) $\angle RSP$ (iii) $\angle SPQ$ (iv) $\angle PQT$ (v) $\angle PQR$

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



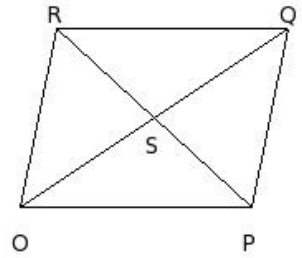
(i) $\angle ABE$ (ii) $\angle BCD$ (iii) $\angle CDE$ (iv) $\angle CDA$ (v) $\angle DAB$

17. In parallelogram NOPQ, diagonals $\overline{OQ}$ and $\overline{NP}$ intersect at R. Then $\angle PQN$ =



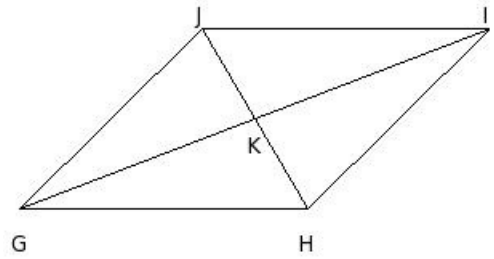
(i) $\angle QNO$ (ii) $\angle PQR$ (iii) $\angle OPQ$ (iv) $\angle NOP$ (v) $\angle NOR$

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



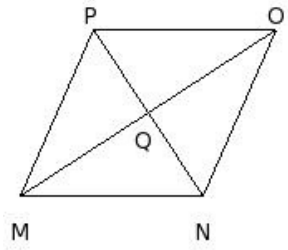
(i) PQ (ii) RS (iii) OS (iv) RO (v) PS

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



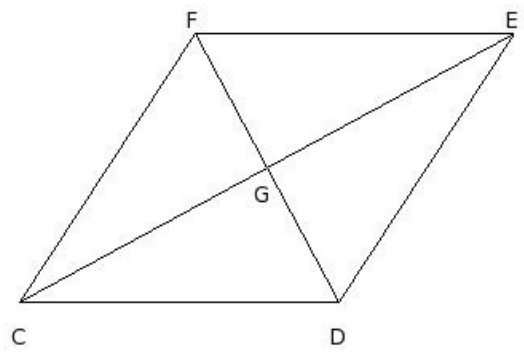
(i) IK (ii) JK (iii) GK (iv) HI (v) JG

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



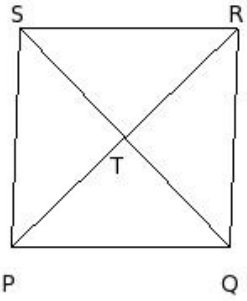
(i) $\overline{OP}$ (ii) $\overline{NO}$ (iii) $\overline{PM}$ (iv) $\overline{NP}$

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



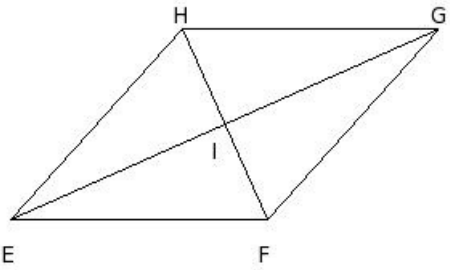
(i) $\overline{FC}$ (ii) $\overline{DF}$ (iii) $\overline{CD}$ (iv) $\overline{DE}$

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



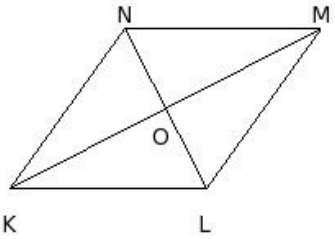
(i) $\overline{RS}$ (ii) $\overline{QS}$ (iii) $\overline{PQ}$ (iv) $\overline{QR}$

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



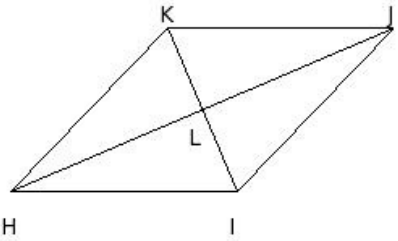
(i) $\overline{EF}$ (ii) $\overline{GH}$ (iii) $\overline{FH}$ (iv) $\overline{HE}$

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



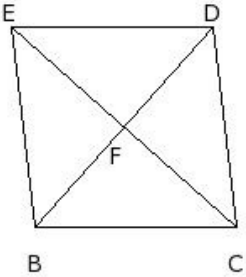
(i) LN (ii) MN (iii) NK (iv) LM

25. In rhombus HIJK, diagonals $\overline{HJ}$ and $\overline{IK}$ intersect at L. Then $JK \neq$



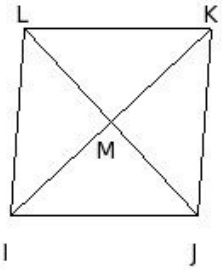
(i) IJ (ii) KH (iii) IK (iv) HI

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



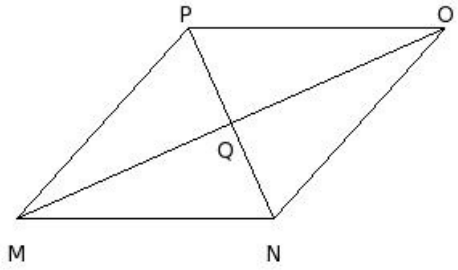
(i) BC (ii) CE (iii) DE (iv) CD

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



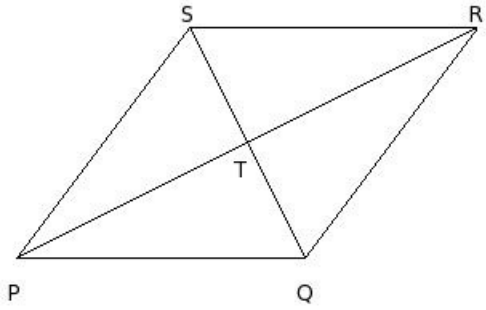
(i) KL (ii) JL (iii) IJ (iv) LI

28. In rhombus MNOP, diagonals $\overline{MO}$ and $\overline{NP}$ intersect at Q. Then △PMN ≅



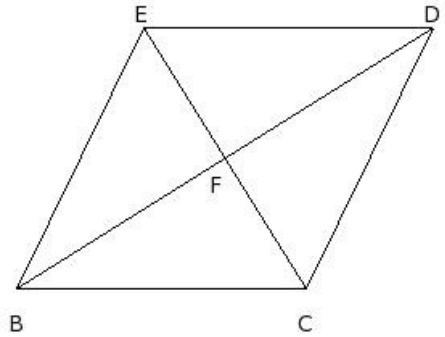
(i) △MNO (ii) △QMN (iii) △NOP (iv) △OPM

29. In rhombus PQRS, diagonals $\overline{PR}$ and $\overline{QS}$ intersect at T. Then △QRS ≅



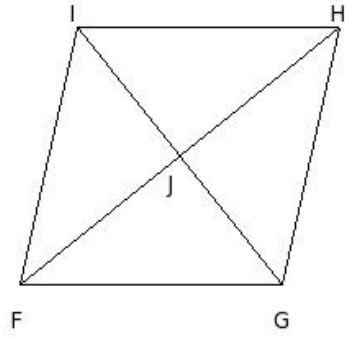
(i) △TPQ (ii) △RSP (iii) △PQR (iv) △SPQ

30. In rhombus BCDE, diagonals $\overline{BD}$ and $\overline{CE}$ intersect at F. Then △DEB ≅



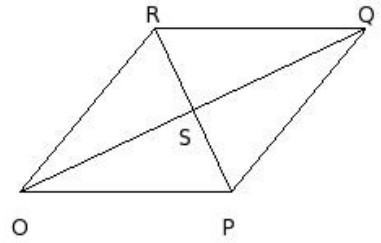
(i) △FBC (ii) △EBC (iii) △CDE (iv) △BCD

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



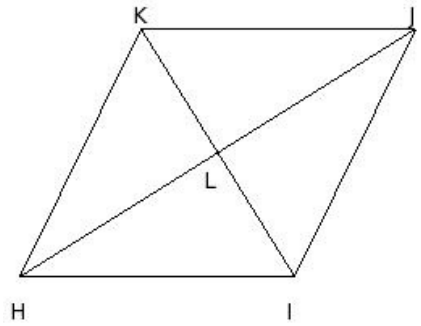
(i) $\triangle JFG$ (ii) $\triangle HIF$ (iii) $\triangle GHI$ (iv) $\triangle IFG$

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



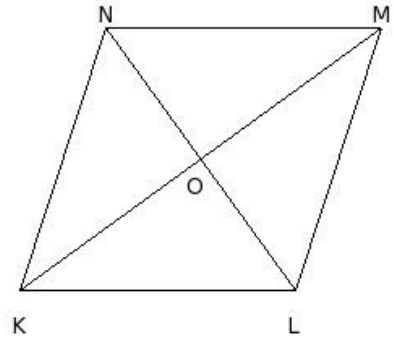
(i) $\triangle SQP$ (ii) $\triangle SOR$ (iii) $\triangle ROP$ (iv) $\triangle SQR$

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



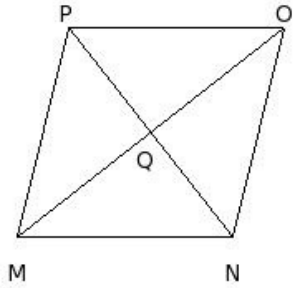
(i) $\triangle LHI$ (ii) $\triangle LJK$ (iii) $\triangle LHK$ (iv) $\triangle KHI$

34. In rhombus KLMN, diagonals $\overline{KM}$ and $\overline{LN}$ intersect at O. Then $\triangle OMN \ncong$



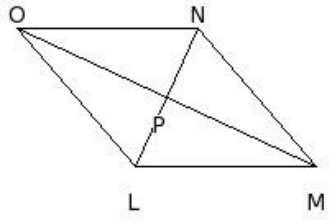
(i) $\triangle NKL$ (ii) $\triangle OKL$ (iii) $\triangle OKN$ (iv) $\triangle OML$

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



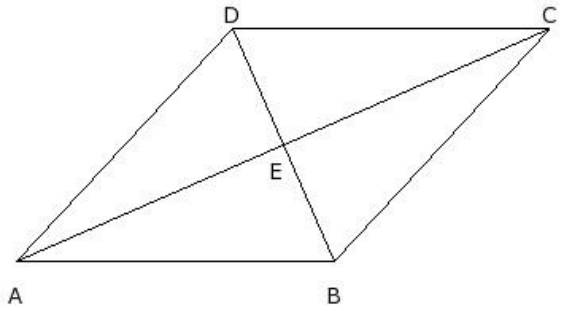
(i) $\triangle PMN$ (ii) $\triangle QOP$ (iii) $\triangle QON$ (iv) $\triangle QMN$

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



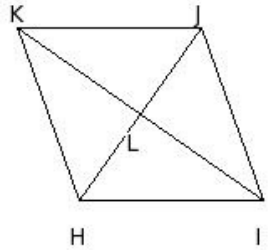
(i) $\angle LMN$ (ii) $\angle MNO$ (iii) $\angle NOL$ (iv) $\angle LMP$

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



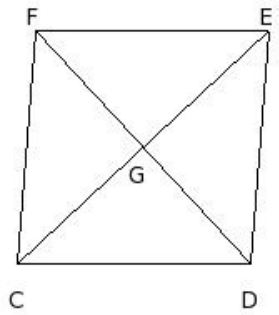
(i) $\angle DAB$ (ii) $\angle ABE$ (iii) $\angle ABC$ (iv) $\angle CDA$

38. In rhombus HIJK, diagonals $\overline{HJ}$ and $\overline{IK}$ intersect at L. Then $\angle HIJ =$



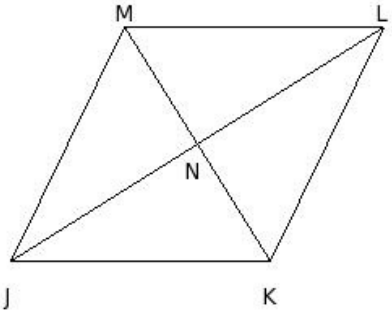
(i) $\angle HIL$ (ii) $\angle KHI$ (iii) $\angle JKH$ (iv) $\angle IJK$

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



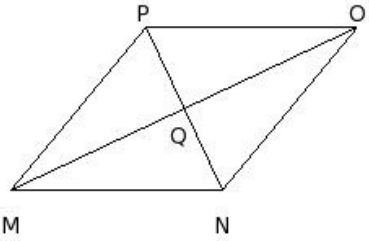
(i) $\angle CDG$ (ii) $\angle CDE$ (iii) $\angle FCD$ (iv) $\angle DEF$

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



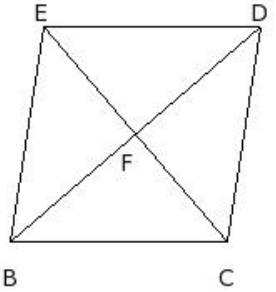
(i) $\angle MJK$ (ii) $\angle LNK$ (iii) $\angle MNL$ (iv) $\angle JNM$

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



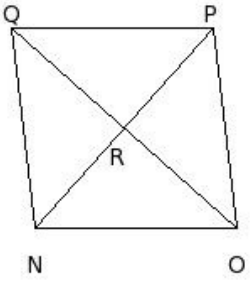
(i) $\angle PMN$ (ii) $\angle NQM$ (iii) $\angle OQN$ (iv) $\angle MQP$

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



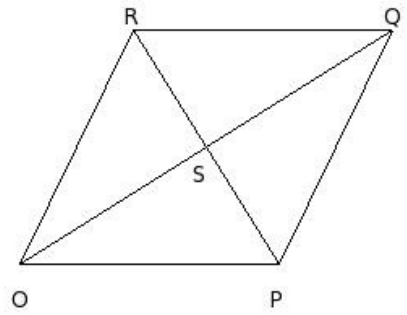
(i) $\angle EFD$ (ii) $\angle CFB$ (iii) $\angle DFC$ (iv) $\angle EBC$

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



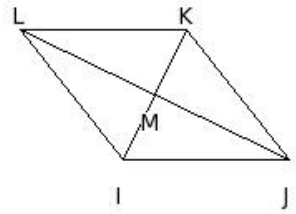
(i) $\angle QRP$ (ii) $\angle ORN$ (iii) $\angle QNO$ (iv) $\angle NRQ$

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



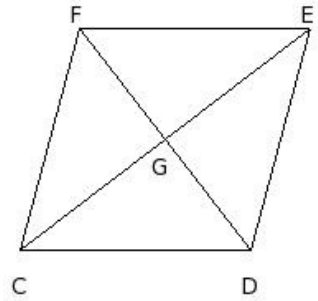
(i) $\angle OSR$ (ii) $\angle SQR$ (iii) $\angle PQS$ (iv) $\angle ROS$

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



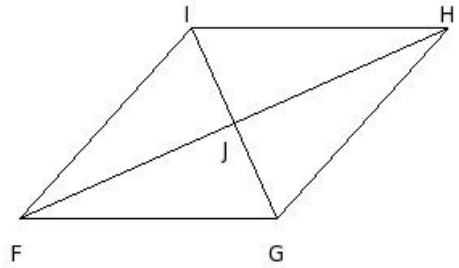
(i) $\angle IML$ (ii) $\angle JKM$ (iii) $\angle LIM$ (iv) $\angle MIJ$

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



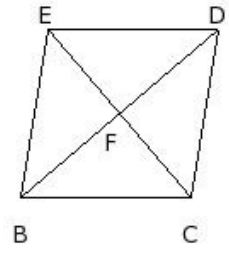
(i) $\angle GEF$ (ii) $\angle CGF$ (iii) $\angle DEG$ (iv) $\angle GCD$

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



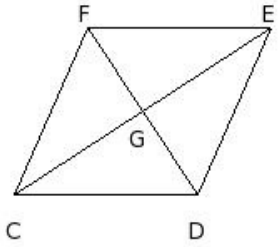
(i) $\angle JHI$ (ii) $\angle IFJ$ (iii) $\angle FJI$ (iv) $\angle JFG$

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



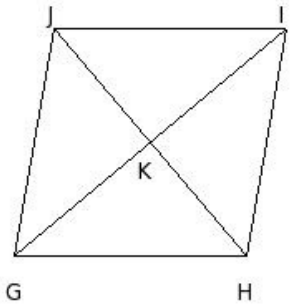
(i) $\angle FCD$ (ii) $\angle BCF$ (iii) $\angle EFD$ (iv) $\angle DEF$

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



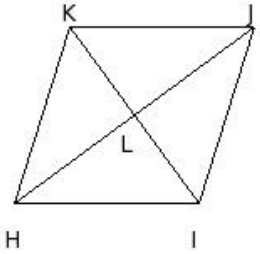
(i) $\angle GFC$ (ii) $\angle FGE$ (iii) $\angle CDG$ (iv) $\angle EFG$

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



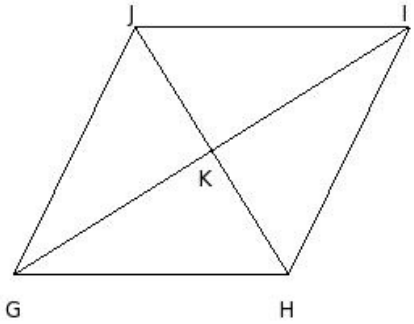
(i) $\angle JKI$ (ii) $\angle KHI$ (iii) $\angle IJK$ (iv) $\angle KJG$

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



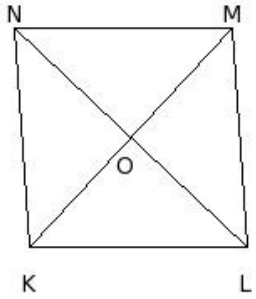
(i) $\angle LIJ$ (ii) $\angle HIL$ (iii) $\angle KLJ$ (iv) $\angle LKH$

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



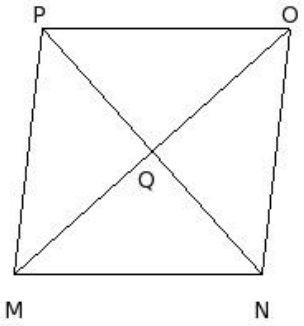
(i) IK (ii) GK (iii) JG (iv) HK

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



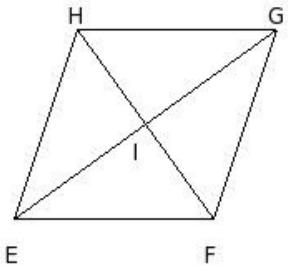
(i) NO (ii) KO (iii) MO (iv) NK

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



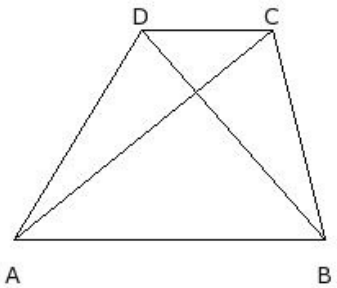
(i) PM (ii) OQ (iii) PQ (iv) NQ

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



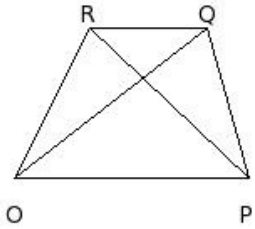
(i) HI (ii) FI (iii) EI (iv) HE

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



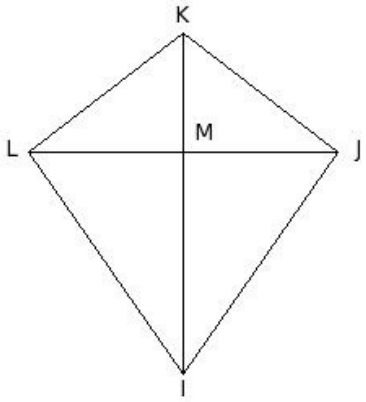
(i) $\overline{BD}$ (ii) $\overline{CD}$ (iii) $\overline{AC}$ (iv) $\overline{BC}$ (v) $\overline{DA}$

57. In trapezium OPQR, $\overline{OQ}$ and $\overline{PR}$ are diagonals. Then $\overline{QR}$ ∥



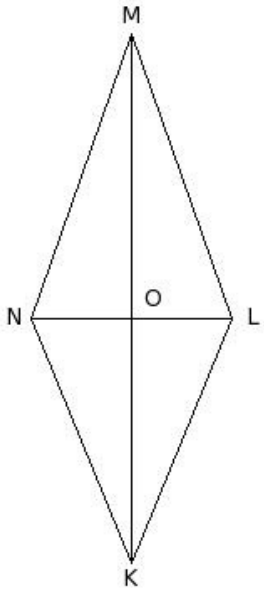
(i) $\overline{RO}$ (ii) $\overline{OP}$ (iii) $\overline{PR}$ (iv) $\overline{OQ}$ (v) $\overline{PQ}$

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



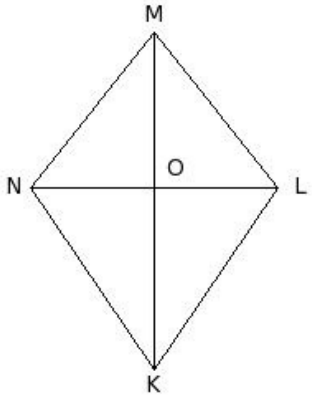
(i) IK (ii) JL (iii) JK (iv) LI (v) KL

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



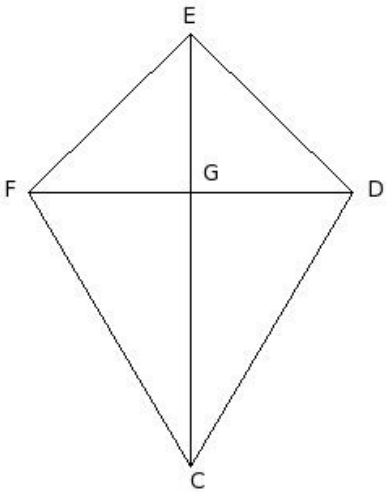
(i) KL (ii) KM (iii) LM (iv) MN (v) LN

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



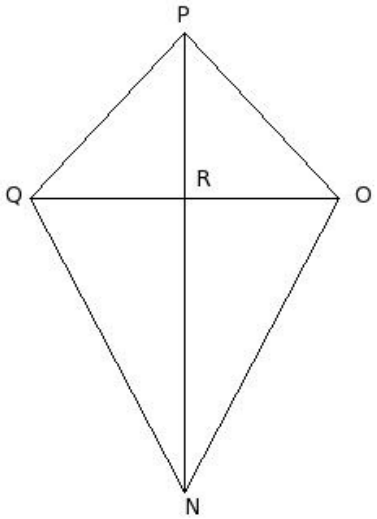
(i) KL (ii) KM (iii) MN (iv) NK (v) LN

61. In kite CDEF, $\overline{CE}$ and $\overline{DF}$ are diagonals. Then EF =



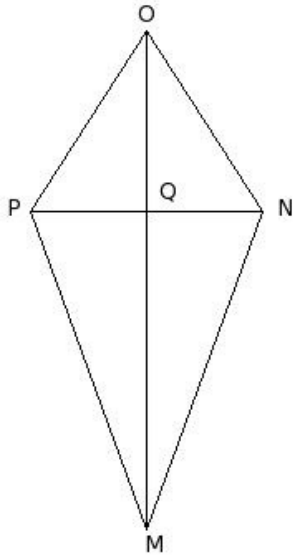
(i) CE (ii) FC (iii) DF (iv) DE (v) CD

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



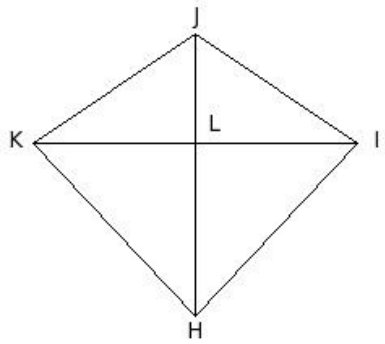
(i) ∠NRO (ii) ∠PQN (iii) ∠NQO (iv) ∠NRQ (v) ∠PQO

63. In kite MNOP, $\overline{MO}$ and $\overline{NP}$ are diagonals. Then $\angle OPM =$



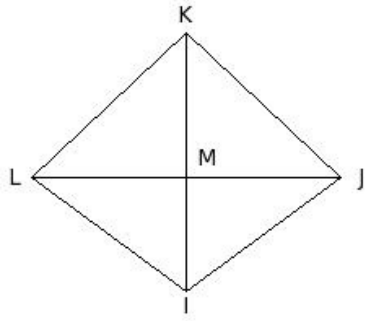
(i) $\angle MQN$ (ii) $\angle OPN$ (iii) $\angle MNO$ (iv) $\angle MPN$ (v) $\angle MQP$

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



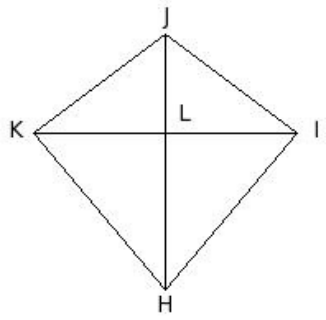
(i) $\angle JKI$ (ii) $\angle HKI$ (iii) $\angle HIJ$ (iv) $\angle HLI$ (v) $\angle JKH$

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



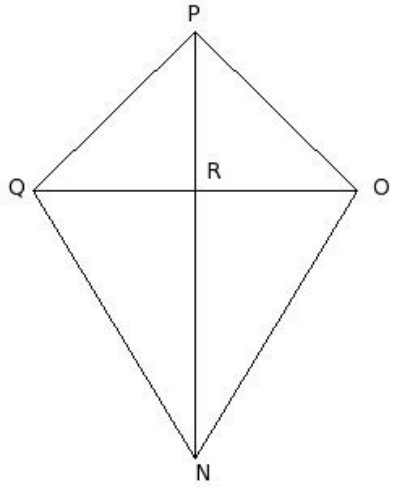
(i) $\angle ILJ$ (ii) $\angle KLI$ (iii) $\angle IJK$ (iv) $\angle IML$ (v) $\angle KLJ$

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



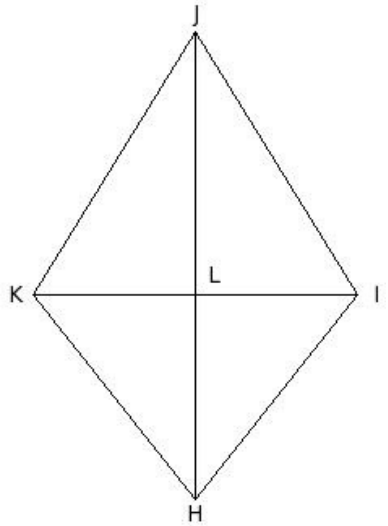
(i) $\triangle JIH$ (ii) $\triangle KIH$ (iii) $\triangle LKH$ (iv) $\triangle LJI$ (v) $\triangle KIJ$

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



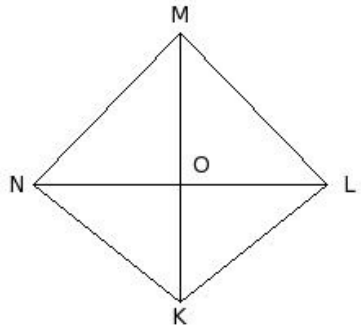
(i) $\triangle QOP$ (ii) $\triangle PQN$ (iii) $\triangle RPO$ (iv) $\triangle RQN$ (v) $\triangle QON$

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



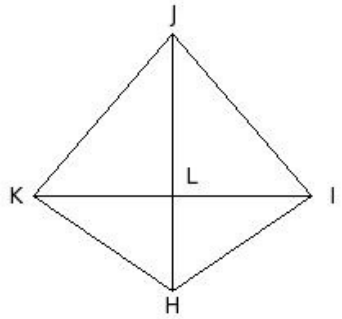
(i) $\triangle KIJ$ (ii) $\triangle LIH$ (iii) $\triangle KIH$ (iv) $\triangle LJK$ (v) $\triangle LJI$

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



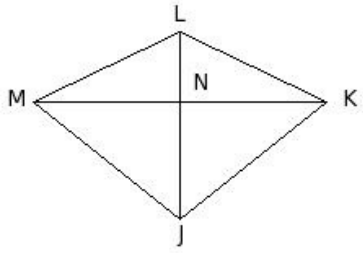
(i) $\triangle ONK$ (ii) $\triangle OML$ (iii) $\triangle OMN$ (iv) $\triangle NLK$ (v) $\triangle NLM$

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



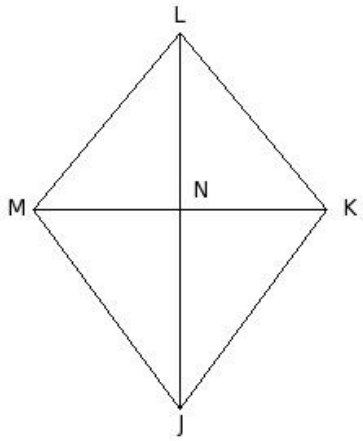
(i) $\triangle KIJ$ (ii) $\triangle LKH$ (iii) $\triangle KIH$ (iv) $\triangle LJI$ (v) $\triangle LIH$

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



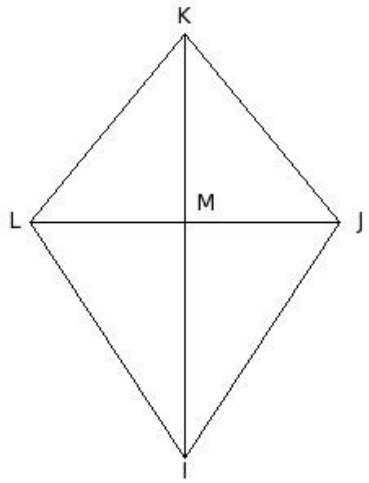
(i) $\triangle NMJ$ (ii) $\triangle NLM$ (iii) $\triangle NKJ$ (iv) $\triangle MKL$ (v) $\triangle MKJ$

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



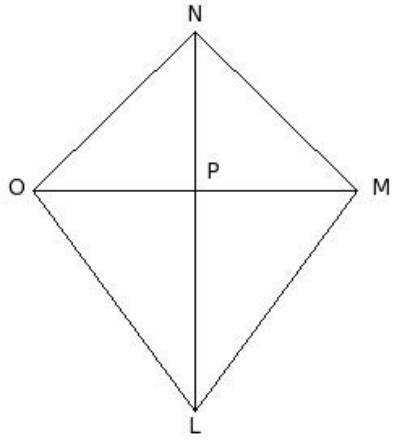
(i) $\angle NLK$ (ii) $\angle NLM$ (iii) $\angle KJN$ (iv) $\angle MNL$ (v) $\angle JNM$

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



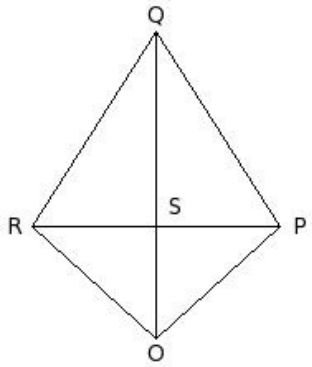
(i) $\angle MKJ$ (ii) $\angle LIM$ (iii) $\angle LMK$ (iv) $\angle IML$ (v) $\angle MKL$

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



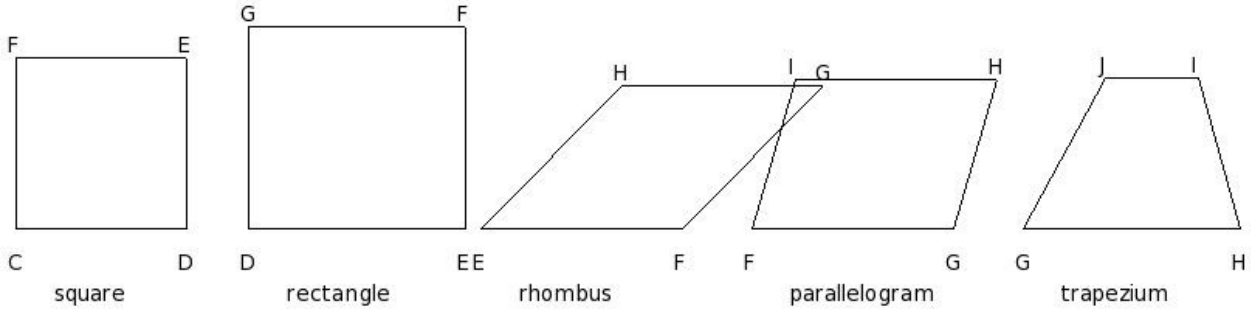
(i) $\angle LPO$ (ii) $\angle OPN$ (iii) $\angle OLP$ (iv) $\angle PNM$ (v) $\angle MLP$

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



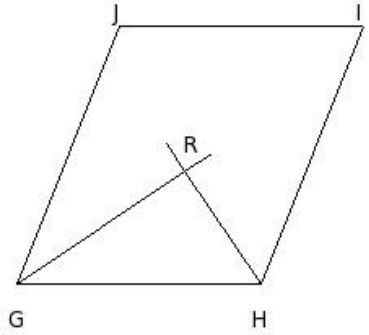
(i) $\angle SQR$ (ii) $\angle POS$ (iii) $\angle OSR$ (iv) $\angle ROS$ (v) $\angle RSQ$

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



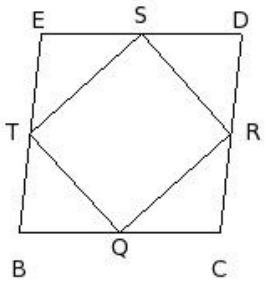
(i) rectangle (ii) parallelogram (iii) square (iv) trapezium (v) rhombus

77. In the given figure, GHIJ is a parallelogram.
If GR and HR are bisector of $\angle G$ & $\angle H$, find $\angle R$



(i) 88° (ii) 91° (iii) 89° (iv) 92° (v) 90°

78. BCDE is a rhombus. Q, R, S and T are mid-points of sides BC, CD, DE and EB. Find ∠RST



(i) 89° (ii) 88° (iii) 91° (iv) 90° (v) 92°

Assignment Key

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