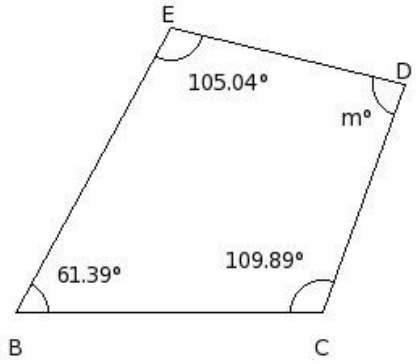
EduSahara™ Assignment

Name : Angle Computation

Chapter : Quadrilaterals

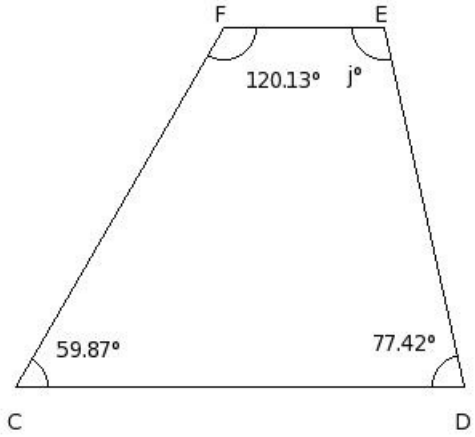
Grade : SSC Grade IX

1. Find the missing angle in the given quadrilateral



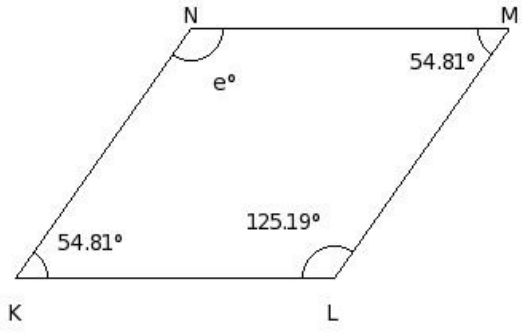
(i) 88.69° (ii) 113.69° (iii) 83.69° (iv) 98.69° (v) 93.69°

2. Find the missing angle in the given trapezium



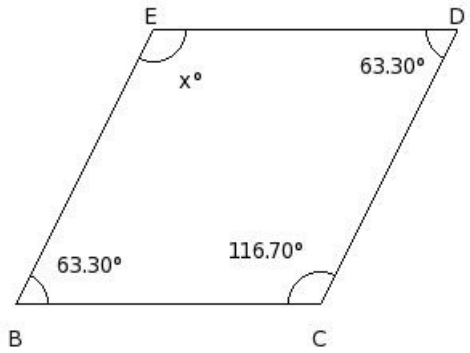
(i) 132.58° (ii) 102.58° (iii) 117.58° (iv) 107.58° (v) 112.58°

3. Find the missing angle in the given parallelogram



(i) 135.19° (ii) 155.19° (iii) 130.19° (iv) 125.19° (v) 140.19°

4. Find the missing angle in the given rhombus



(i) 126.7° (ii) 146.7° (iii) 116.7° (iv) 121.7° (v) 131.7°

5. The measures of three angles of a quadrilateral are $65.37°, 113.87°$ and $50.75°$. Find the fourth angle

(i) 145.01° (ii) 140.01° (iii) 135.01° (iv) 130.01° (v) 160.01°

6. Sum of the interior angles in a quadrilateral is

(i) 360° (ii) 365° (iii) 375° (iv) 370° (v) 390°

7. In parallelogram ABCD, if $\angle D = 91.73°$, then find the value of $\angle A$

(i) 86.27° (ii) 90.27° (iii) 89.27° (iv) 88.27° (v) 87.27°

8. If the opposite angles of a parallelogram are supplementary, the measure of each of its angles is

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

9. If ABCD is an isosceles trapezium, $\angle D =$

(i) $\angle A$ (ii) $\angle C$ (iii) $\angle B$ (iv) 90°

10. PQRS is a rhombus in which $\angle P = 120°$. $\overline{QS}$ is the diagonal. Then $\triangle PQR$ is

(i) an equilateral triangle (ii) None of these (iii) an isosceles triangle (iv) a scalene triangle (v) an obtuse angled triangle

11. FGHI is a rhombus in which $\angle F = 118°$. $\overline{GI}$ is the diagonal. Then $\triangle FGH$ is

(i) an obtuse angled triangle (ii) an equilateral triangle (iii) None of these (iv) a scalene triangle (v) an isosceles triangle

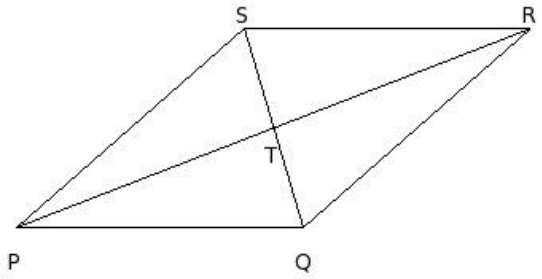
12. The angles of a quadrilateral BCDE are in the ratio 6 : 4 : 5 : 9. Find the measure of each angle of the quadrilateral.

(i) B=91°,C=59°,D=77°,E=133° (ii) B=89°,C=58°,D=76°,E=137° (iii) B=90°,C=60°,D=75°,E=135° (iv) B=88°,C=62°,D=74°,E=136° (v) B=92°,C=59°,D=73°,E=136°

13. Two adjacent angles of a parallelogram FGHI are in the ratio 9 : 11. Find the measure of each of its angles.

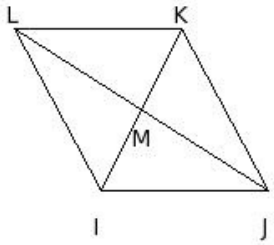
(i) F=80°,G=97°,H=82°,I=101° (ii) F=81°,G=99°,H=81°,I=99° (iii) F=83°,G=98°,H=79°,I=100° (iv) F=79°,G=101°,H=80°,I=100° (v) F=82°,G=98°,H=83°,I=97°

14. In the adjoining figure, PQRS is a parallelogram in which ∠SPR = 20.1°, ∠RPQ = 21.06°, ∠STR = 84.7°. Calculate ∠PQS



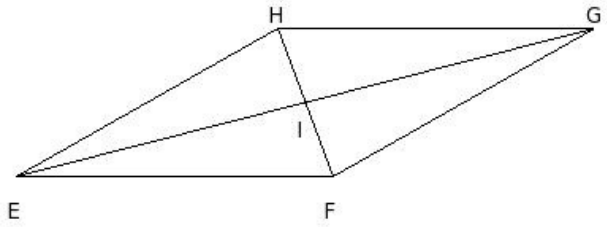
(i) 73.24° (ii) 76.24° (iii) 75.24° (iv) 74.24° (v) 72.24°

15. In the adjoining figure, IJKL is a parallelogram in which ∠LIK = 54.76°, ∠KIJ = 63.43°, ∠LMK = 83.29°. Calculate ∠KLJ



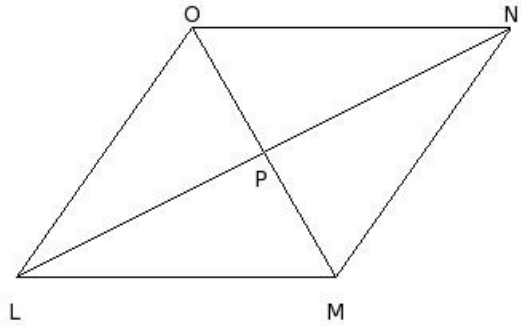
(i) 33.28° (ii) 32.28° (iii) 34.28° (iv) 35.28° (v) 31.28°

16. In the adjoining figure, EFGH is a parallelogram in which ∠HEG = 15.22°, ∠GEF = 14.18°, ∠HIG = 95.49°. Calculate ∠FGE



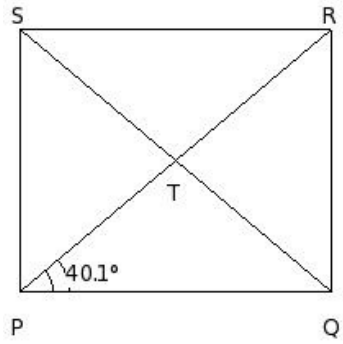
(i) 16.22° (ii) 17.22° (iii) 14.22° (iv) 15.22° (v) 13.22°

17. In the adjoining figure, LMNO is a parallelogram in which ∠OLN = 28.1°, ∠NLM = 26.71°, ∠OPN = 93.27°. Calculate ∠OMN



(i) 65.17° (ii) 64.17° (iii) 67.17° (iv) 66.17° (v) 63.17°

18. In the adjoining figure, PQRS is a rectangle. If $\angle RPQ = 40.1°$, find $\angle RTQ$



(i) 79.20° (ii) 80.20° (iii) 78.20° (iv) 82.20° (v) 81.20°

19. Three angles of quadrilateral measure 96.06°, 83.36° and 102.12° respectively. Find the measure of the fourth angle

(i) 77.46° (ii) 76.46° (iii) 78.46° (iv) 80.46° (v) 79.46°

20. Three angles of a quadrilateral are equal and the fourth angle measure 35.84°. What is the measure of each of the equal angles?

(i) 107.05° (ii) 109.05° (iii) 110.05° (iv) 106.05° (v) 108.05°

21. Two angles of a quadrilateral are of measure 57.61° and 144.49° respectively and the other two angles are equal. Find the measure of each of the equal angles.

(i) 79.95° (ii) 78.95° (iii) 80.95° (iv) 77.95° (v) 76.95°

22. A quadrilateral has three acute angles, each measuring 44°. What is the measure of its fourth angle?

(i) 229.00° (ii) 228.00° (iii) 227.00° (iv) 230.00° (v) 226.00°

23. One angle of a parallelogram measures $P = 50.13°$.
Find the measure of each of its remaining angles.

(i) $Q=128.87°, R=49.13°, S=128.87°$ (ii) $Q=131.87°, R=52.13°, S=131.87°$

(iii) $Q=130.87°, R=51.13°, S=130.87°$ (iv) $Q=127.87°, R=48.13°, S=127.87°$

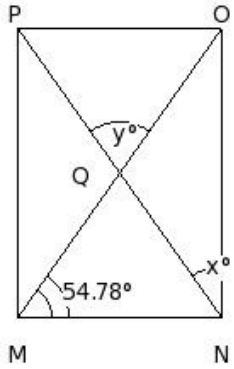
(v) $Q=129.87°, R=50.13°, S=129.87°$

24. Two adjacent angles of a parallelogram are in the ratio $2 : 2$.
Find the measure of each of its angles.

(i) $A=92°, B=89°, C=88°, D=91°$ (ii) $A=89°, B=88°, C=91°, D=92°$ (iii) $A=88°, B=92°, C=89°, D=91°$

(iv) $A=90°, B=90°, C=90°, D=90°$ (v) $A=91°, B=89°, C=92°, D=88°$

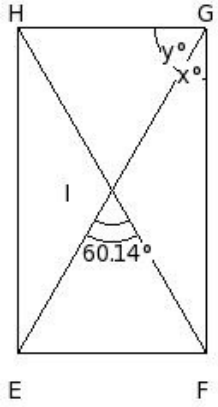
25. In the figure given below, MNOP is a rectangle. Find the values of x and y



(i) x=36.22°,y=71.44° (ii) x=33.22°,y=68.44° (iii) x=34.22°,y=69.44° (iv) x=37.22°,y=72.44°

(v) x=35.22°,y=70.44°

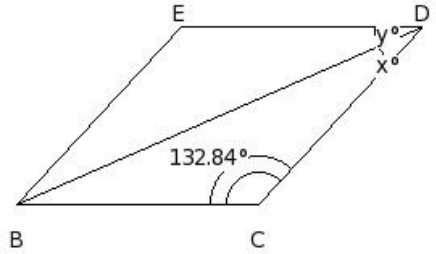
26. In the figure given below, EFGH is a rectangle. Find the values of x and y



(i) x=32.07°,y=61.93° (ii) x=31.07°,y=60.93° (iii) x=30.07°,y=59.93° (iv) x=28.07°,y=57.93°

(v) x=29.07°,y=58.93°

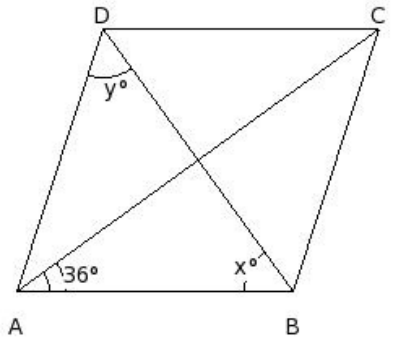
27. In the figure given below, BCDE is a rhombus. Find the values of x and y



(i) x=21.58°,y=21.58° (ii) x=24.58°,y=24.58° (iii) x=23.58°,y=23.58° (iv) x=25.58°,y=25.58°

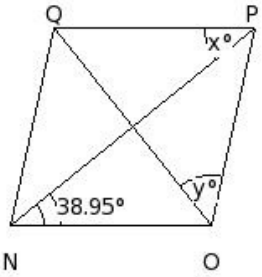
(v) x=22.58°,y=22.58°

28. In the figure given below, ABCD is a rhombus. Find the values of x and y



(i) x=55°,y=55° (ii) x=53°,y=53° (iii) x=56°,y=56° (iv) x=52°,y=52° (v) x=54°,y=54°

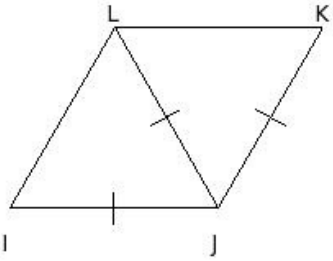
29. In the figure given below, NOPQ is a rhombus. Find the values of x and y



(i) $x=36.95°, y=49.05°$ (ii) $x=40.95°, y=53.05°$ (iii) $x=38.95°, y=51.05°$ (iv) $x=37.95°, y=50.05°$

(v) $x=39.95°, y=52.05°$

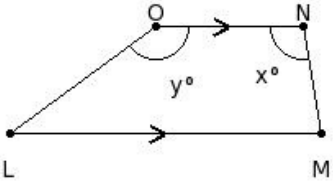
30. One of the diagonals of a rhombus is equal to one of its sides. Find the angles of the rhombus



(i) $I=59°, J=118°, K=61°, L=122°$ (ii) $I=62°, J=119°, K=58°, L=121°$ (iii) $I=60°, J=120°, K=60°, L=120°$

(iv) $I=58°, J=122°, K=59°, L=121°$ (v) $I=61°, J=119°, K=62°, L=118°$

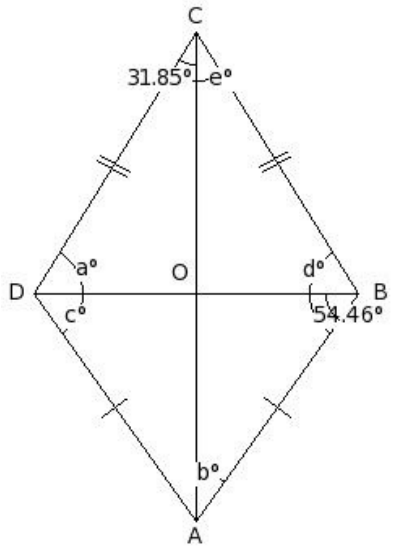
31. In the adjoining figure, LMNO is a trapezium in which $\overline{LM} \parallel \overline{NO}$.
If $x = 99.61°$ and $y = 143.86°$, find the measures of $\angle L$ and $\angle M$.



(i) $L=37.14°, M=81.39°$ (ii) $L=34.14°, M=78.39°$ (iii) $L=36.14°, M=80.39°$ (iv) $L=35.14°, M=79.39°$

(v) $L=38.14°, M=82.39°$

32. In the adjoining figure, $ABCD$ is a kite in which $AB = DA, BC = CD$ and the diagonals $\overline{BD}$ and $\overline{AC}$ intersect at O.
If $\angle OCD = 31.85°$ and $\angle ABO = 54.46°$, find the measure of each of the angles marked a,b,c,d and e.



(i) a = 58.15° , b = 36.54° , c = 53.46° , d = 58.15° , e = 31.85°

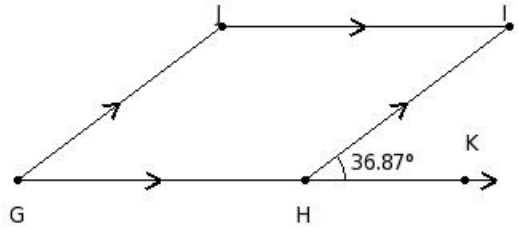
(ii) a = 58.15° , b = 36.54° , c = 54.46° , d = 58.15° , e = 31.85°

(iii) a = 58.15° , b = 35.54° , c = 54.46° , d = 58.15° , e = 31.85°

(iv) a = 58.15° , b = 36.54° , c = 53.46° , d = 60.15° , e = 31.85°

(v) a = 58.15° , b = 36.54° , c = 53.46° , d = 60.15° , e = 29.85°

33. In the adjoining figure, side GH of parallelogram GHIJ has been produced to K. If $\angle IHK = 36.87°$, find the measure of each angle of the parallelogram.

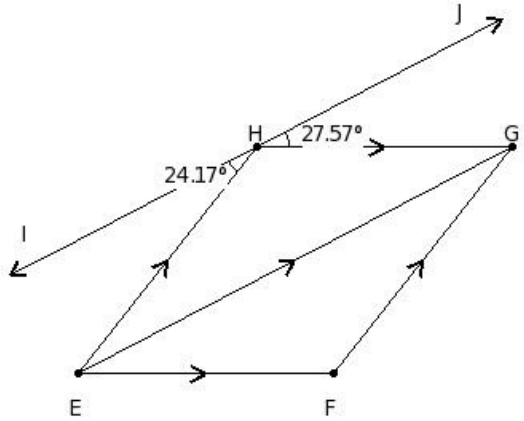


(i) G=38.87°,H=142.13°,I=34.87°,J=144.13° (ii) G=36.87°,H=143.13°,I=36.87°,J=143.13°

(iii) G=37.87°,H=142.13°,I=38.87°,J=141.13° (iv) G=34.87°,H=145.13°,I=35.87°,J=144.13°

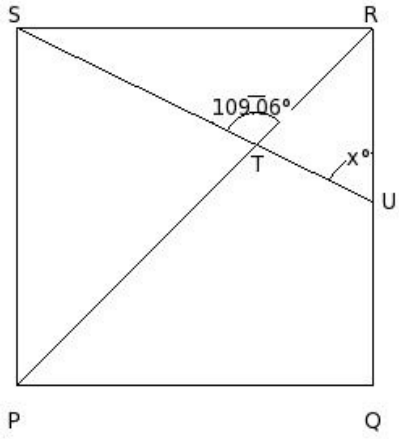
(v) G=35.87°,H=141.13°,I=37.87°,J=145.13°

34. In the adjoining figure, $EFGH$ is a parallelogram and IJ is such that $\overline{IJ} \parallel \overline{EG}$
If $\angle EHI = 24.17°$ and $\angle GHJ = 27.57°$, find the measure of $\angle GHE$.



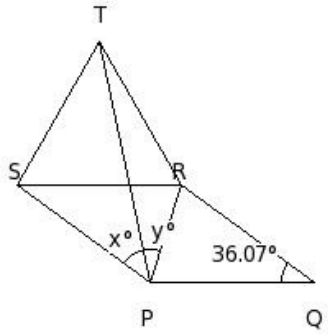
(i) 126.26° (ii) 130.26° (iii) 128.26° (iv) 129.26° (v) 127.26°

35. In the adjoining figure, PQRS is a square. A line segment SU cuts the side QR at U and the diagonal PR at T such that ∠STR = 109.06° and ∠TUR = x°. Find the value of x .



(i) 66.06° (ii) 62.06° (iii) 63.06° (iv) 64.06° (v) 65.06°

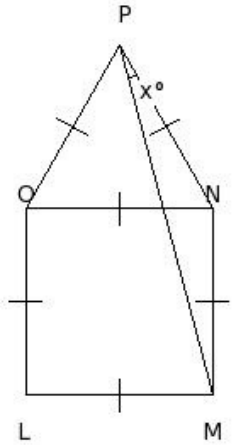
36. In the adjoining figure, PQRS is a rhombus and △TSR is an equilateral triangle. T and P are on opposite sides of RS. If ∠PQR = 36.07°, find the values of x and y .



(i) x=43.97°,y=32° (ii) x=39.97°,y=28° (iii) x=42.97°,y=31° (iv) x=41.97°,y=30°

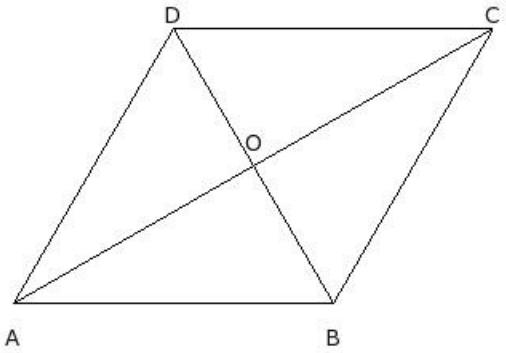
(v) x=40.97°,y=29°

37. In the adjoining figure, equilateral △ONP surmounts square LMNO. If NPM = x°, find the value of x.



(i) 15° (ii) 13° (iii) 14° (iv) 17° (v) 16°

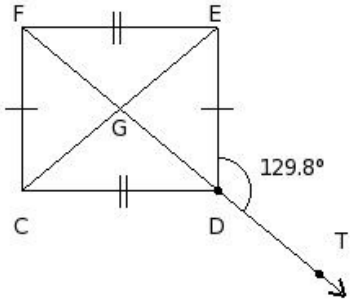
38. In the adjoining figure, $ABCD$ is a rhombus whose diagonals intersect at O.
If $\angle OAB : \angle ABO = 3 : 6$, find the angles of $\triangle OAB$.



(i) $O=88°, A=32°, B=60°$ (ii) $O=92°, A=30°, B=58°$ (iii) $O=90°, A=30°, B=60°$ (iv) $O=90°, A=28°, B=62°$

(v) $O=88°, A=30°, B=62°$

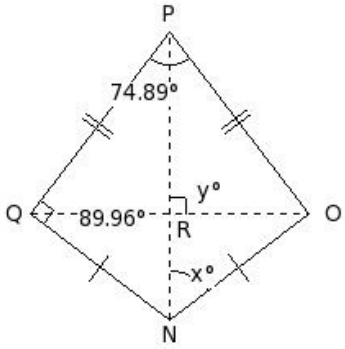
39. In the given figure, $CDEF$ is a rectangle whose diagonals intersect at G.
Diagonal DF is produced to T and $\angle EDT = 129.8°$. Find the angles of $\triangle GFC$.



(i) $G=77.6°, F=52.2°, C=50.2°$ (ii) $G=79.6°, F=50.2°, C=50.2°$ (iii) $G=81.6°, F=50.2°, C=48.2°$

(iv) $G=79.6°, F=48.2°, C=52.2°$ (v) $G=77.6°, F=50.2°, C=52.2°$

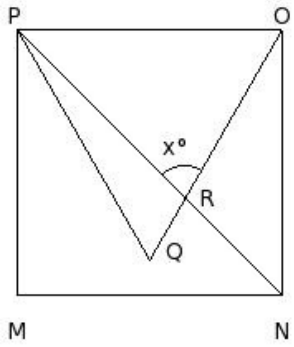
40. In the given figure, $NOPQ$ is a kite whose diagonals intersect at R.
If $\angle OPQ = 74.89°$ and $\angle PQN = 89.96°$, calculate $\angle RNO$ and $\angle PRO$.



(i) $x=51.59°, y=89°$ (ii) $x=53.59°, y=91°$ (iii) $x=54.59°, y=92°$ (iv) $x=50.59°, y=88°$

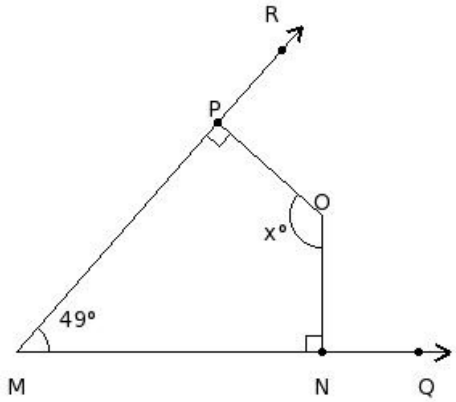
(v) $x=52.59°, y=90°$

41. $\triangle QOP$ is an equilateral triangle in a square $MNOP$.
If NP and QO intersect at R, then find the value of x.



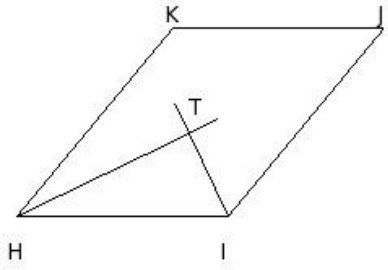
(i) 77° (ii) 75° (iii) 73° (iv) 74° (v) 76°

42. In the adjoining figure, O is a point in the interior of $\angle QMR$.
If $ON \perp MQ$ and $OP \perp MR$ and $\angle QMR = 49°$, find the measure of x .



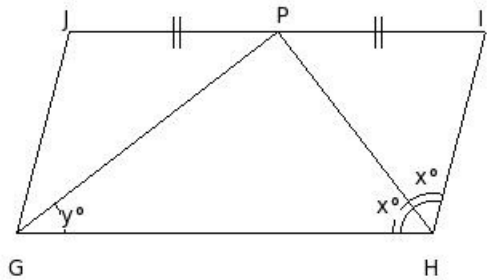
(i) 132° (ii) 131° (iii) 129° (iv) 133° (v) 130°

43. In the given figure, HIJK is a parallelogram.
If HT and IT are bisector of $\angle H$ & $\angle I$, find $\angle T$



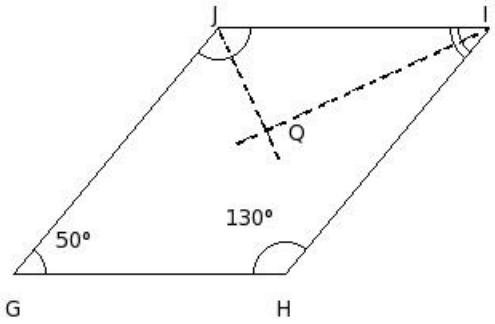
(i) 90° (ii) 89° (iii) 88° (iv) 91° (v) 92°

44. In the given figure, GHIJ is a parallelogram. P is the mid-point of IJ.
HP bisects $\angle H$. If $x = 52°$, find angle 'y'.



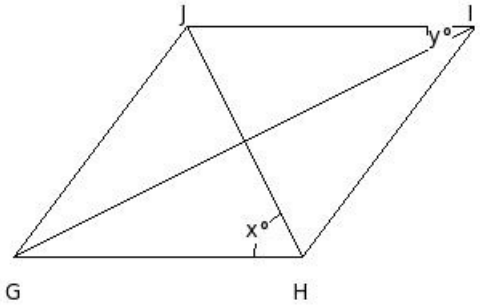
(i) 38° (ii) 36° (iii) 40° (iv) 39° (v) 37°

45. In the given figure, GHIJ is a quadrilateral. QJ and QI are bisectors of ∠J & ∠I meeting at Q. Find ∠IQJ



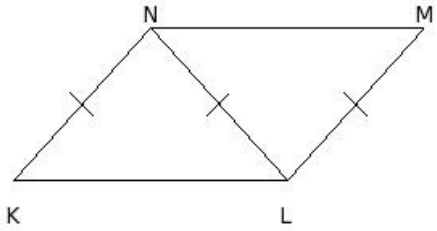
(i) 92.0° (ii) 89.0° (iii) 88.0° (iv) 90.0° (v) 91.0°

46. In the given figure, GHIJ is a rhombus. Given x = 63°, find the value of 'y'.



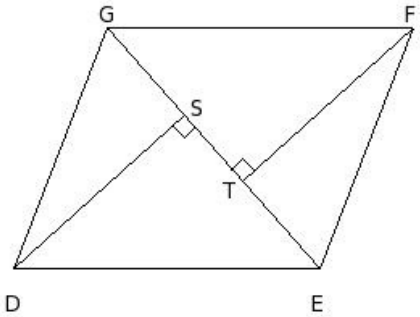
(i) 28° (ii) 27° (iii) 25° (iv) 29° (v) 26°

47. In the given figure, KLMN is a parallelogram. LN is the diagonal such that KN = LN = LM. Given ∠K = 48°, find ∠NLM



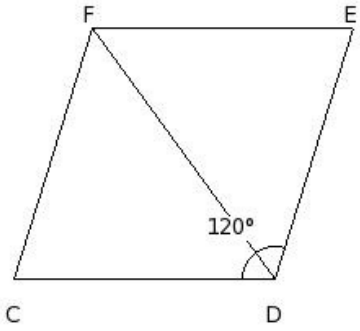
(i) 84° (ii) 85° (iii) 82° (iv) 86° (v) 83°

48. In the given figure, DEFG is a parallelogram. DS and FT are perpendicular to the diagonal EG. Given ∠SDE = 42°, find ∠FGE



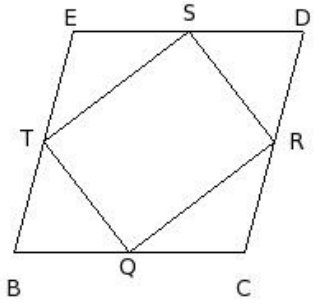
(i) 49° (ii) 48° (iii) 46° (iv) 50° (v) 47°

49. In the given figure, CDEF is a rhombus such that ∠D = 120°. Then △CDF is



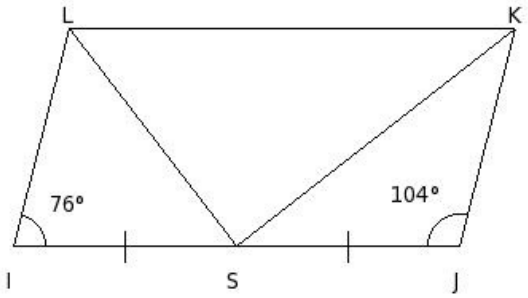
(i) Isosceles triangle (ii) Obtuse angled triangle (iii) Equilateral triangle (iv) Right angled triangle

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



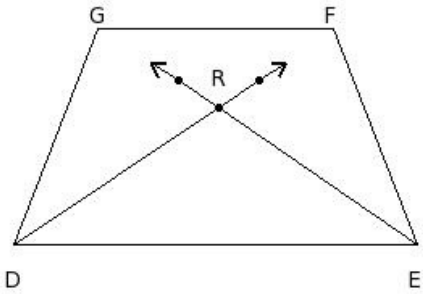
(i) 90° (ii) 89° (iii) 91° (iv) 88° (v) 92°

51. In the given figure, IJKL is a parallelogram such that S is the mid-point of IJ and IJ = 2LI. Find ∠LSK



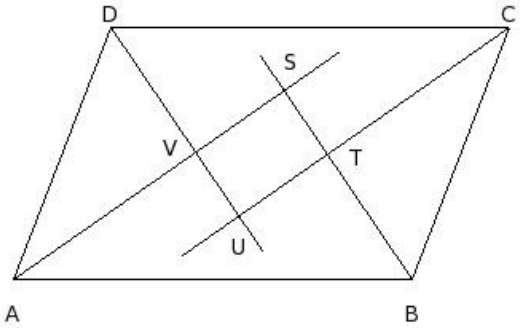
(i) 91° (ii) 88° (iii) 90° (iv) 89° (v) 92°

52. DEFG is an isosceles trapezium. DR and ER are angular bisector of ∠D & ∠E. If ∠D = 69°, find ∠DRE



(i) 113° (ii) 112° (iii) 109° (iv) 110° (v) 111°

53. In the given figure, ABCD is a parallelogram. The bisector of the angles A, B, C & D intersect at S, T, U & V to form a quadrilateral. Find ∠UVS



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

Assignment Key

1) (iii)	2) (ii)	3) (iv)	4) (iii)	5) (iv)	6) (i)
7) (iv)	8) (ii)	9) (ii)	10) (i)	11) (v)	12) (iii)
13) (ii)	14) (iv)	15) (i)	16) (iv)	17) (i)	18) (ii)
19) (iii)	20) (v)	21) (ii)	22) (ii)	23) (v)	24) (iv)
25) (v)	26) (iii)	27) (iii)	28) (v)	29) (iii)	30) (iii)
31) (iii)	32) (iii)	33) (ii)	34) (iii)	35) (iv)	36) (iv)
37) (i)	38) (iii)	39) (ii)	40) (v)	41) (ii)	42) (ii)
43) (i)	44) (i)	45) (iv)	46) (ii)	47) (i)	48) (ii)
49) (iii)	50) (i)	51) (iii)	52) (v)	53) (i)	