



1. In parallelogram ABCD, if $\angle D = 101.54^\circ$, then find the value of $\angle B$
(i) 100.54° (ii) 102.54° (iii) 103.54° (iv) 101.54° (v) 99.54°

2. If the opposite angles of a parallelogram are supplementary, the measure of each of its angles is
(i) 91° (ii) 90° (iii) 92° (iv) 88° (v) 89°

3. The sum of the interior angles of a quadrilateral is
(i) 360° (ii) 90° (iii) 180° (iv) 270°

4. If ABCD is an isosceles trapezium, $\angle C =$
(i) 90° (ii) $\angle D$ (iii) $\angle A$ (iv) $\angle B$

MNOP is a rhombus in which $\angle M = 120^\circ$.

5. $\overline{NP}$
is the diagonal. Then $\triangle MNO$ is
(i) an obtuse angled triangle (ii) an equilateral triangle (iii) None of these (iv) a scalene triangle
(v) an isosceles triangle

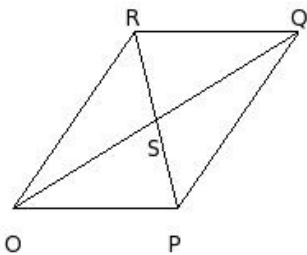
MNOP is a rhombus in which $\angle M = 138^\circ$.

6. $\overline{NP}$
is the diagonal. Then $\triangle MNO$ is
(i) an obtuse angled triangle (ii) an equilateral triangle (iii) a scalene triangle (iv) None of these
(v) an isosceles triangle

7. The angles of a quadrilateral OPQR are in the ratio 9 : 10 : 4 : 37. Find the measure of each angle of the quadrilateral.
(i) $O=56^\circ, P=59^\circ, Q=22^\circ, R=223^\circ$ (ii) $O=54^\circ, P=60^\circ, Q=24^\circ, R=222^\circ$ (iii) $O=55^\circ, P=59^\circ, Q=26^\circ, R=220^\circ$
(iv) $O=53^\circ, P=58^\circ, Q=25^\circ, R=224^\circ$ (v) $O=52^\circ, P=62^\circ, Q=23^\circ, R=223^\circ$

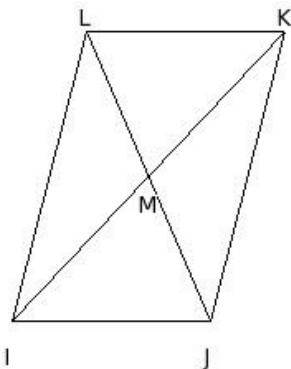
8. Two adjacent angles of a parallelogram CDEF are in the ratio 5 : 15. Find the measure of each of its angles.
(i) $C=46^\circ, D=134^\circ, E=47^\circ, F=133^\circ$ (ii) $C=44^\circ, D=133^\circ, E=46^\circ, F=137^\circ$ (iii) $C=45^\circ, D=135^\circ, E=45^\circ, F=135^\circ$
(iv) $C=43^\circ, D=137^\circ, E=44^\circ, F=136^\circ$ (v) $C=47^\circ, D=134^\circ, E=43^\circ, F=136^\circ$

9. In the adjoining figure, OPQR is a parallelogram in which $\angle ROQ = 23.98^\circ$, $\angle QOP = 31.35^\circ$, $\angle RSQ = 71.71^\circ$. Calculate $\angle OPR$



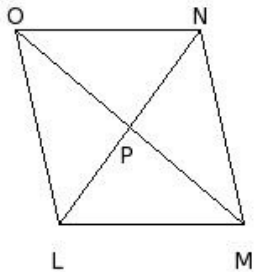
- (i) 78.94° (ii) 75.94° (iii) 76.94° (iv) 77.94° (v) 74.94°

10. In the adjoining figure, IJKL is a parallelogram in which $\angle LIK = 28.88^\circ$, $\angle KIJ = 46.7^\circ$, $\angle LMK = 66.13^\circ$. Calculate $\angle KLJ$



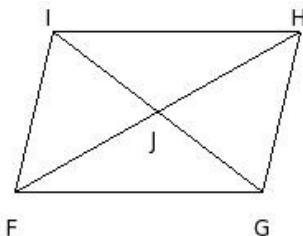
- (i) 67.17° (ii) 66.17° (iii) 65.17° (iv) 68.17° (v) 69.17°

11. In the adjoining figure, LMNO is a parallelogram in which $\angle OLN = 48.54^\circ$, $\angle NLM = 54.09^\circ$, $\angle OPN = 85.45^\circ$. Calculate $\angle MNL$



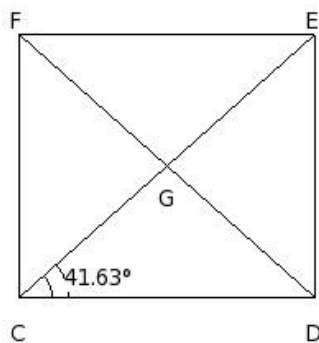
- (i) 47.54° (ii) 46.54° (iii) 48.54° (iv) 49.54° (v) 50.54°

12. In the adjoining figure, FGHI is a parallelogram in which $\angle IFH = 47.49^\circ$, $\angle HFG = 29.17^\circ$, $\angle IJH = 112.73^\circ$. Calculate $\angle IGH$



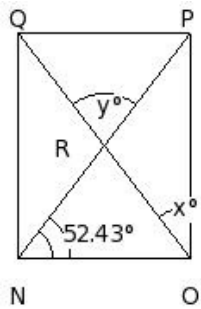
- (i) 67.24° (ii) 63.24° (iii) 66.24° (iv) 65.24° (v) 64.24°

13. In the adjoining figure, CDEF is a rectangle. If $\angle ECD = 41.63^\circ$, find $\angle EGD$



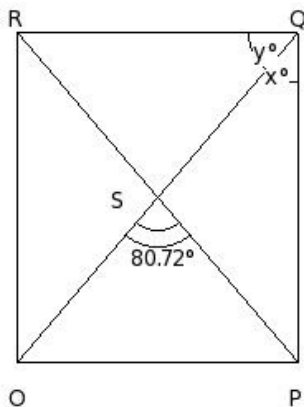
- (i) 85.26° (ii) 82.26° (iii) 83.26° (iv) 84.26° (v) 81.26°
14. Three angles of quadrilateral measure 102.09° , 97.8° and 86.42° respectively. Find the measure of the fourth angle
(i) 75.69° (ii) 73.69° (iii) 74.69° (iv) 71.69° (v) 72.69°
15. Three angles of a quadrilateral are equal and the fourth angle measure 51.32° . What is the measure of each of the equal angles?
(i) 101.89° (ii) 103.89° (iii) 100.89° (iv) 102.89° (v) 104.89°
16. Two angles of a quadrilateral are of measure 80.28° and 113.21° respectively and the other two angles are equal. Find the measure of each of the equal angles.
(i) 84.25° (ii) 82.25° (iii) 81.25° (iv) 85.25° (v) 83.25°
17. A quadrilateral has three acute angles, each measuring 44° . What is the measure of its fourth angle?
(i) 228.00° (ii) 230.00° (iii) 229.00° (iv) 226.00° (v) 227.00°
18. One angle of a parallelogram measures $G = 41.08^\circ$. Find the measure of each of its remaining angles.
(i) $H = 140.92^\circ, I = 43.08^\circ, J = 140.92^\circ$ (ii) $H = 139.92^\circ, I = 42.08^\circ, J = 139.92^\circ$
(iii) $H = 137.92^\circ, I = 40.08^\circ, J = 137.92^\circ$ (iv) $H = 136.92^\circ, I = 39.08^\circ, J = 136.92^\circ$
(v) $H = 138.92^\circ, I = 41.08^\circ, J = 138.92^\circ$
19. Two adjacent angles of a parallelogram are in the ratio 23 : 67. Find the measure of each of its angles.
(i) $A = 47^\circ, B = 133^\circ, C = 48^\circ, D = 132^\circ$ (ii) $A = 44^\circ, B = 136^\circ, C = 45^\circ, D = 135^\circ$
(iii) $A = 48^\circ, B = 133^\circ, C = 44^\circ, D = 135^\circ$ (iv) $A = 45^\circ, B = 132^\circ, C = 47^\circ, D = 136^\circ$
(v) $A = 46^\circ, B = 134^\circ, C = 46^\circ, D = 134^\circ$

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



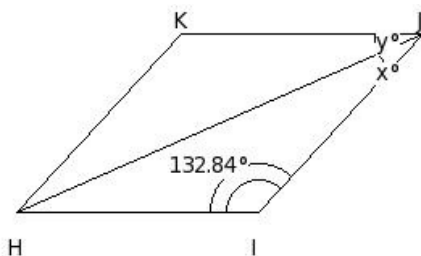
- (i) $x=35.57^\circ, y=73.14^\circ$ (ii) $x=37.57^\circ, y=75.14^\circ$ (iii) $x=39.57^\circ, y=77.14^\circ$ (iv) $x=36.57^\circ, y=74.14^\circ$
 (v) $x=38.57^\circ, y=76.14^\circ$

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



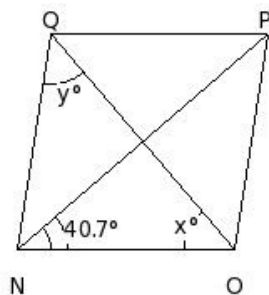
- (i) $x=40.36^\circ, y=49.64^\circ$ (ii) $x=39.36^\circ, y=48.64^\circ$ (iii) $x=38.36^\circ, y=47.64^\circ$ (iv) $x=42.36^\circ, y=51.64^\circ$
 (v) $x=41.36^\circ, y=50.64^\circ$

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



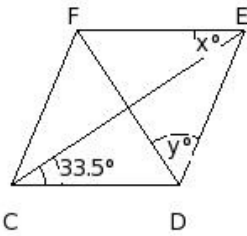
- (i) $x=25.58^\circ, y=25.58^\circ$ (ii) $x=23.58^\circ, y=23.58^\circ$ (iii) $x=21.58^\circ, y=21.58^\circ$ (iv) $x=24.58^\circ, y=24.58^\circ$
 (v) $x=22.58^\circ, y=22.58^\circ$

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



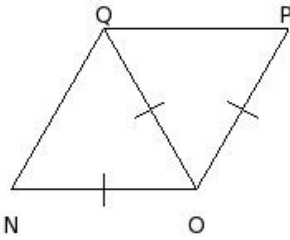
- (i) $x=51.3^\circ, y=51.3^\circ$ (ii) $x=48.3^\circ, y=48.3^\circ$ (iii) $x=47.3^\circ, y=47.3^\circ$ (iv) $x=50.3^\circ, y=50.3^\circ$
 (v) $x=49.3^\circ, y=49.3^\circ$

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



- (i) $x=31.5^\circ, y=54.5^\circ$ (ii) $x=35.5^\circ, y=58.5^\circ$ (iii) $x=32.5^\circ, y=55.5^\circ$ (iv) $x=34.5^\circ, y=57.5^\circ$
 (v) $x=33.5^\circ, y=56.5^\circ$

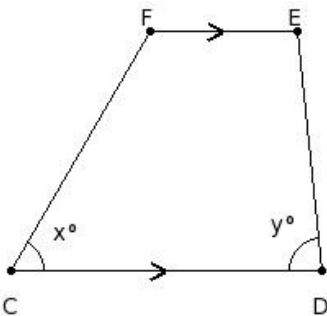
25. One of the diagonals of a rhombus is equal to one of its sides. Find the angles of the rhombus



- (i) $N=60^\circ, O=120^\circ, P=60^\circ, Q=120^\circ$ (ii) $N=62^\circ, O=119^\circ, P=58^\circ, Q=121^\circ$
 (iii) $N=59^\circ, O=118^\circ, P=61^\circ, Q=122^\circ$ (iv) $N=58^\circ, O=122^\circ, P=59^\circ, Q=121^\circ$
 (v) $N=61^\circ, O=119^\circ, P=62^\circ, Q=118^\circ$

26. In the adjoining figure, CDEF is a trapezium in which $\overline{CD} \parallel \overline{EF}$.

If $x = 59.79^\circ$ and $y = 84.13^\circ$, find the measures of $\angle E$ and $\angle F$.

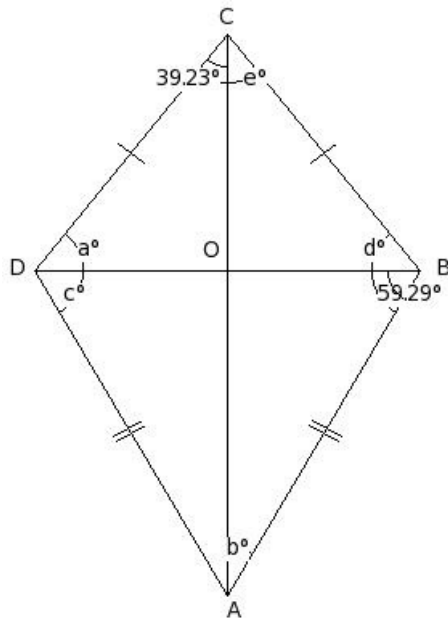


- (i) $E=94.87^\circ, F=119.21^\circ$ (ii) $E=96.87^\circ, F=121.21^\circ$ (iii) $E=93.87^\circ, F=118.21^\circ$ (iv) $E=95.87^\circ, F=120.21^\circ$
 (v) $E=97.87^\circ, F=122.21^\circ$

In the adjoining figure, ABCD is a kite in which $AB = DA$, $BC = CD$

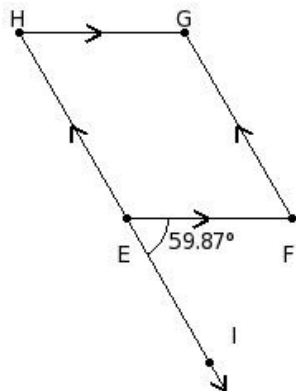
27. and the diagonals $\overline{BD}$ and $\overline{AC}$ intersect at O.

If $\angle OCD = 39.23^\circ$ and $\angle ABO = 59.29^\circ$, find the measure of each of the angles marked a, b, c, d and e.



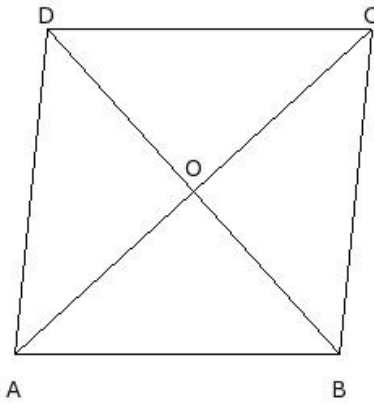
- (i) $a = 50.77^\circ$, $b = 30.71^\circ$, $c = 59.29^\circ$, $d = 50.77^\circ$, $e = 39.23^\circ$
- (ii) $a = 50.77^\circ$, $b = 31.71^\circ$, $c = 58.29^\circ$, $d = 52.77^\circ$, $e = 37.23^\circ$
- (iii) $a = 50.77^\circ$, $b = 31.71^\circ$, $c = 59.29^\circ$, $d = 50.77^\circ$, $e = 39.23^\circ$
- (iv) $a = 50.77^\circ$, $b = 31.71^\circ$, $c = 58.29^\circ$, $d = 50.77^\circ$, $e = 39.23^\circ$
- (v) $a = 50.77^\circ$, $b = 31.71^\circ$, $c = 58.29^\circ$, $d = 52.77^\circ$, $e = 39.23^\circ$

28. In the adjoining figure, side HE of parallelogram EFGH has been produced to I. If $\angle FEI = 59.87^\circ$, find the measure of each angle of the parallelogram.



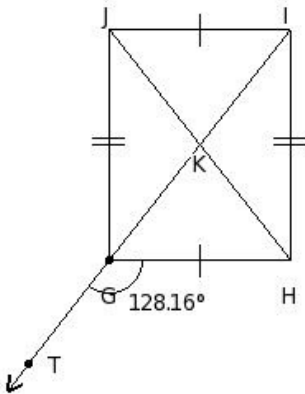
- (i) $E = 118.13^\circ$, $F = 61.87^\circ$, $G = 119.13^\circ$, $H = 60.87^\circ$
- (ii) $E = 121.13^\circ$, $F = 58.87^\circ$, $G = 122.13^\circ$, $H = 57.87^\circ$
- (iii) $E = 120.13^\circ$, $F = 59.87^\circ$, $G = 120.13^\circ$, $H = 59.87^\circ$
- (iv) $E = 122.13^\circ$, $F = 58.87^\circ$, $G = 118.13^\circ$, $H = 60.87^\circ$
- (v) $E = 119.13^\circ$, $F = 57.87^\circ$, $G = 121.13^\circ$, $H = 61.87^\circ$

29. In the adjoining figure, ABCD is a rhombus whose diagonals intersect at O. If $\angle OAB : \angle ABO = 7 : 8$, find the angles of $\triangle OAB$.



- (i) $O = 88^\circ, A = 42^\circ, B = 50^\circ$ (ii) $O = 90^\circ, A = 40^\circ, B = 50^\circ$ (iii) $O = 92^\circ, A = 42^\circ, B = 46^\circ$ (iv) $O = 90^\circ, A = 42^\circ, B = 48^\circ$
 (v) $O = 88^\circ, A = 44^\circ, B = 48^\circ$

30. In the given figure, GHJ is a rectangle whose diagonals intersect at K. Diagonal GI is produced to T and $\angle HGT = 128.16^\circ$. Find the angles of $\triangle KIJ$.

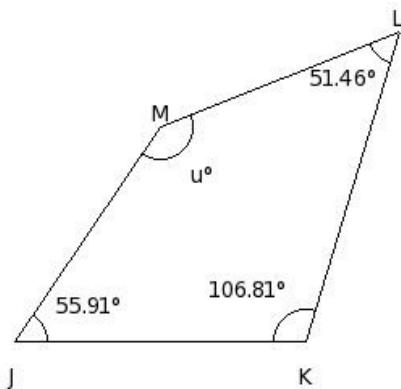


- (i) $K = 74.32^\circ, I = 51.84^\circ, J = 53.84^\circ$ (ii) $K = 76.32^\circ, I = 51.84^\circ, J = 51.84^\circ$ (iii) $K = 78.32^\circ, I = 51.84^\circ, J = 49.84^\circ$
 (iv) $K = 76.32^\circ, I = 49.84^\circ, J = 53.84^\circ$ (v) $K = 74.32^\circ, I = 53.84^\circ, J = 51.84^\circ$

31. The measures of three angles of a quadrilateral are $44.42^\circ, 132.43^\circ$ and 40.16° . Find the fourth angle

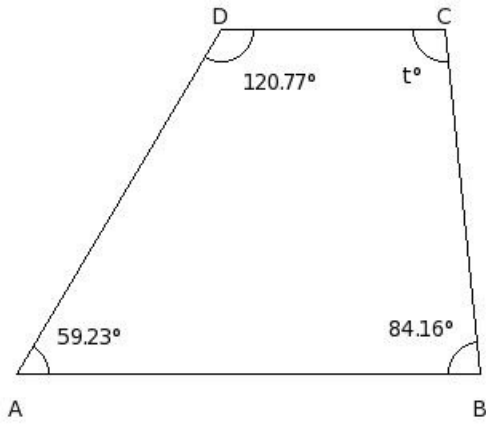
- (i) 142.99° (ii) 152.99° (iii) 147.99° (iv) 157.99° (v) 172.99°

32. Find the missing angle in the given quadrilateral



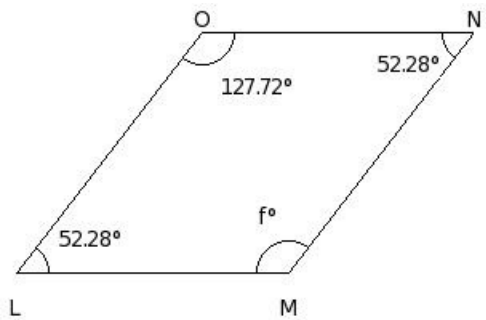
- (i) 160.82° (ii) 175.82° (iii) 150.82° (iv) 155.82° (v) 145.82°

33. Find the missing angle in the given trapezium



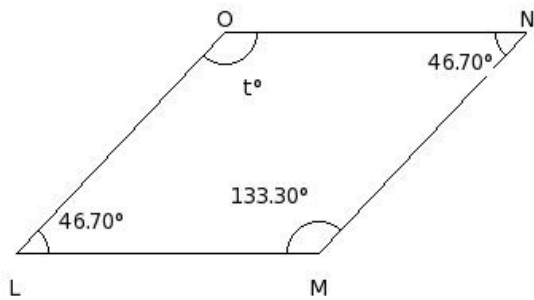
- (i) 125.84° (ii) 105.84° (iii) 100.84° (iv) 95.84° (v) 110.84°

34. Find the missing angle in the given parallelogram



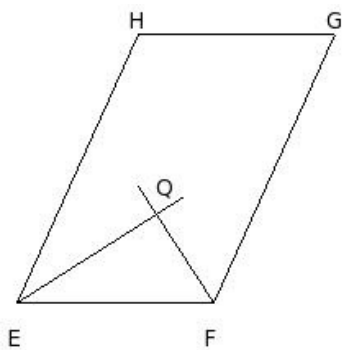
- (i) 142.72° (ii) 132.72° (iii) 137.72° (iv) 157.72° (v) 127.72°

35. Find the missing angle in the given rhombus



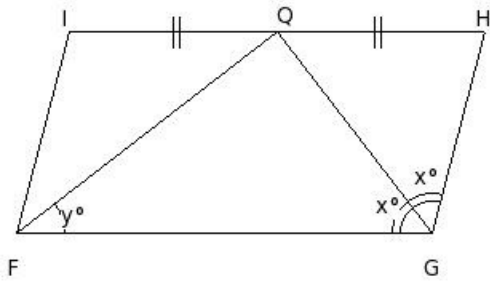
- (i) 163.3° (ii) 133.3° (iii) 148.3° (iv) 138.3° (v) 143.3°

36. In the given figure, EFGH is a parallelogram. If EQ and FQ are bisector of $\angle E$ & $\angle F$, find $\angle Q$



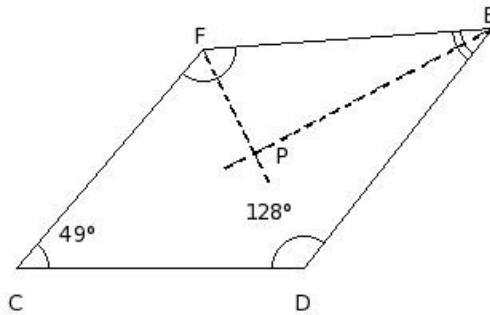
- (i) 91° (ii) 88° (iii) 89° (iv) 92° (v) 90°

37. In the given figure, FGHI is a parallelogram. Q is the mid-point of HI. GQ bisects $\angle G$. If $x = 52^\circ$, find angle 'y'.



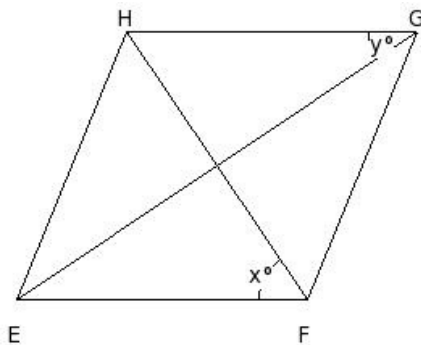
- (i) 38° (ii) 36° (iii) 39° (iv) 40° (v) 37°

38. In the given figure, CDEF is a quadrilateral. PF and PE are bisectors of $\angle F$ & $\angle E$ meeting at P. Find $\angle EPF$



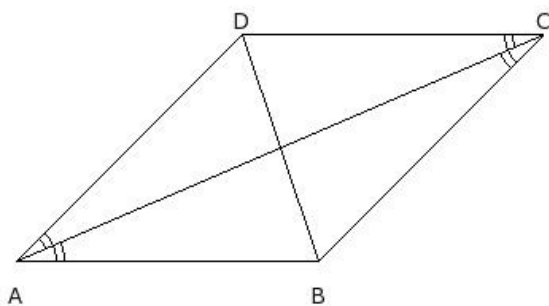
- (i) 87.5° (ii) 89.5° (iii) 90.5° (iv) 86.5° (v) 88.5°

39. In the given figure, EFGH is a rhombus. Given $x = 56^\circ$, find the value of 'y'.



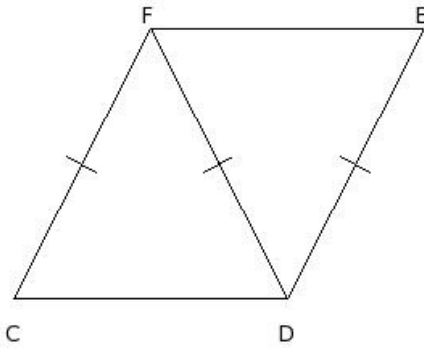
- (i) 33° (ii) 35° (iii) 32° (iv) 36° (v) 34°

40. In the given figure, ABCD is a parallelogram. AC bisects $\angle A$ & $\angle C$. Given $AC = 9$ cm and $BD = 6$ cm, find AB



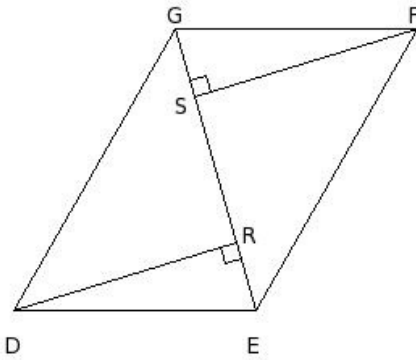
- (i) 7.41 cm (ii) 4.41 cm (iii) 3.41 cm (iv) 5.41 cm (v) 6.41 cm

41. In the given figure, CDEF is a parallelogram. DF is the diagonal such that $CF = DF = DE$. Given $\angle C = 63^\circ$, find $\angle FDE$



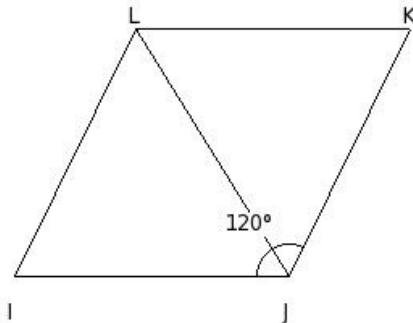
- (i) 54° (ii) 56° (iii) 52° (iv) 53° (v) 55°

42. In the given figure, DEFG is a parallelogram. DR and FS are perpendicular to the diagonal EG. Given $\angle SFG = 17^\circ$, find $\angle GED$



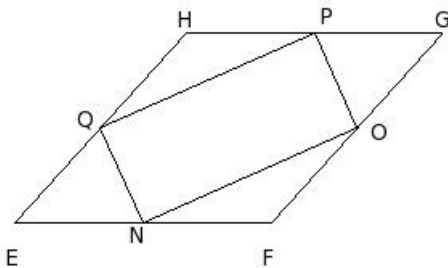
- (i) 72° (ii) 75° (iii) 73° (iv) 74° (v) 71°

43. In the given figure, IJKL is a rhombus such that $\angle J = 120^\circ$. Then $\triangle IJL$ is



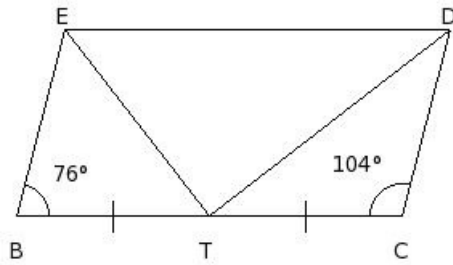
- (i) Obtuse angled triangle (ii) Right angled triangle (iii) Equilateral triangle (iv) Isosceles triangle

44. EFGH is a rhombus. N, O, P and Q are mid-points of sides EF, FG, GH and HE. Find $\angle OPQ$



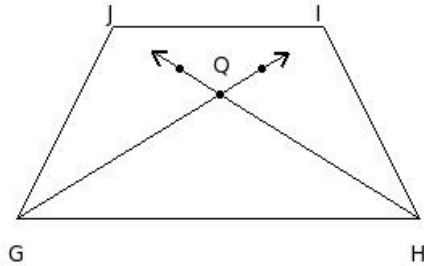
- (i) 91° (ii) 90° (iii) 88° (iv) 89° (v) 92°

45. In the given figure, BCDE is a parallelogram such that T is the mid-point of BC and $BC = 2EB$. Find $\angle ETD$



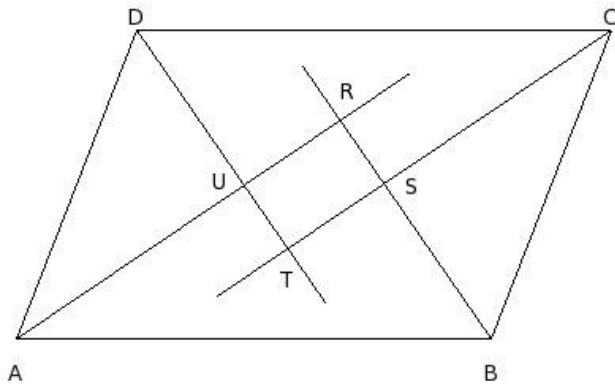
- (i) 90° (ii) 89° (iii) 92° (iv) 91° (v) 88°

46. GHIJ is an isosceles trapezium. GQ and HQ are angular bisector of $\angle G$ & $\angle H$. If $\angle G = 63^\circ$, find $\angle GQH$



- (i) 119° (ii) 118° (iii) 117° (iv) 115° (v) 116°

47. In the given figure, ABCD is a parallelogram. The bisector of the angles A, B, C & D intersect at R, S, T & U to form a quadrilateral. Find $\angle STU$



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

Assignment Key

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