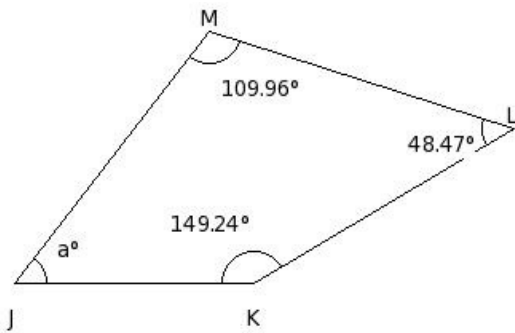




1. The measures of three angles of a quadrilateral are 50.06° , 148.44° and 51.32° . Find the fourth angle
(i) 110.18° (ii) 115.18° (iii) 140.18° (iv) 120.18° (v) 125.18°

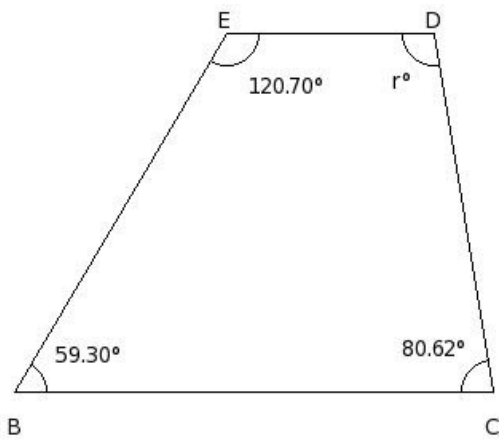
2. Sum of the interior angles in a quadrilateral is
(i) 360° (ii) 365° (iii) 390° (iv) 375° (v) 370°

3. Find the missing angle in the given quadrilateral



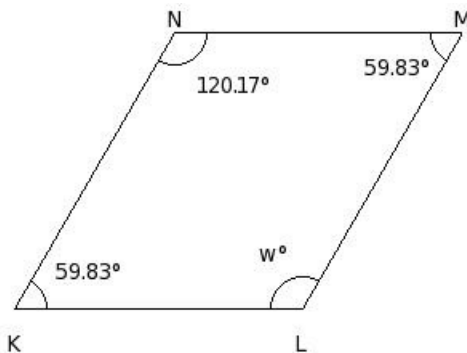
- (i) 62.33° (ii) 52.33° (iii) 67.33° (iv) 57.33° (v) 82.33°

4. Find the missing angle in the given trapezium



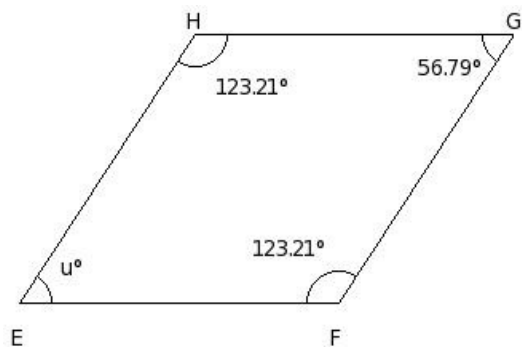
- (i) 129.38° (ii) 114.38° (iii) 99.38° (iv) 109.38° (v) 104.38°

5. Find the missing angle in the given parallelogram



- (i) 125.17° (ii) 150.17° (iii) 120.17° (iv) 130.17° (v) 135.17°

6. Find the missing angle in the given rhombus



- (i) 61.79° (ii) 71.79° (iii) 66.79° (iv) 56.79° (v) 86.79°

7. In parallelogram ABCD, if $\angle C = 38.21^\circ$, then find the value of $\angle B$

- (i) 139.79° (ii) 140.79° (iii) 142.79° (iv) 143.79° (v) 141.79°

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

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

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

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

PQRS is a rhombus in which $\angle P = 120^\circ$.

10. \overline{QS}

is the diagonal. Then $\triangle PQR$ is

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

DEFG is a rhombus in which $\angle D = 92^\circ$.

11. \overline{EG}

is the diagonal. Then $\triangle DEF$ is

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

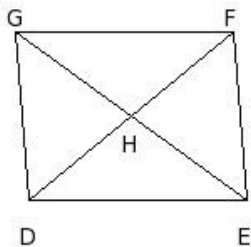
12. The angles of a quadrilateral EFGH are in the ratio 10 : 4 : 5 : 21. Find the measure of each angle of the quadrilateral.

- (i) $E=88^\circ, F=38^\circ, G=44^\circ, H=190^\circ$ (ii) $E=91^\circ, F=35^\circ, G=47^\circ, H=187^\circ$ (iii) $E=90^\circ, F=36^\circ, G=45^\circ, H=189^\circ$
(iv) $E=89^\circ, F=34^\circ, G=46^\circ, H=191^\circ$ (v) $E=92^\circ, F=35^\circ, G=43^\circ, H=190^\circ$

13. Two adjacent angles of a parallelogram ABCD are in the ratio 4 : 6. Find the measure of each of its angles.

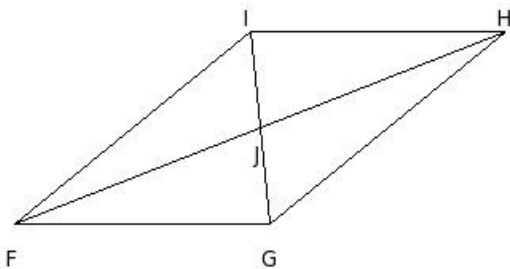
- (i) $A=72^\circ, B=108^\circ, C=72^\circ, D=108^\circ$ (ii) $A=73^\circ, B=107^\circ, C=74^\circ, D=106^\circ$
(iii) $A=74^\circ, B=107^\circ, C=70^\circ, D=109^\circ$ (iv) $A=70^\circ, B=110^\circ, C=71^\circ, D=109^\circ$
(v) $A=71^\circ, B=106^\circ, C=73^\circ, D=110^\circ$

14. In the adjoining figure, DEFG is a parallelogram in which $\angle GDF = 55.23^\circ$, $\angle FDE = 39.34^\circ$, $\angle GHF = 104.73^\circ$. Calculate $\angle DEG$



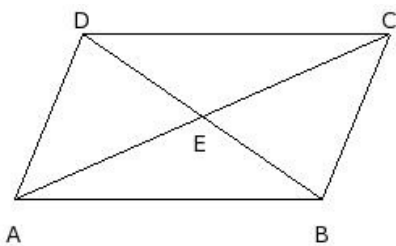
- (i) 37.93° (ii) 36.93° (iii) 33.93° (iv) 34.93° (v) 35.93°

15. In the adjoining figure, FGHI is a parallelogram in which $\angle IFH = 17.75^\circ$, $\angle HFG = 21.29^\circ$, $\angle IJH = 74.42^\circ$. Calculate $\angle HIG$



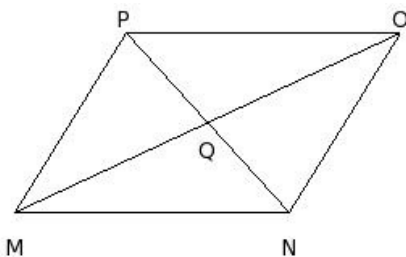
- (i) 84.29° (ii) 82.29° (iii) 86.29° (iv) 83.29° (v) 85.29°

16. In the adjoining figure, ABCD is a parallelogram in which $\angle DAC = 43.88^\circ$, $\angle CAB = 23.74^\circ$, $\angle DEC = 121.69^\circ$. Calculate $\angle BCA$



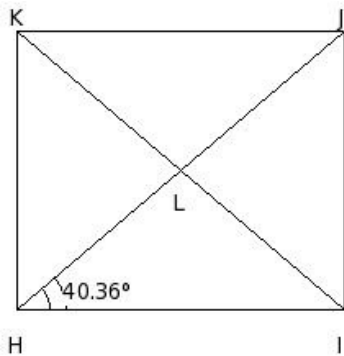
- (i) 42.88° (ii) 44.88° (iii) 45.88° (iv) 41.88° (v) 43.88°

17. In the adjoining figure, MNOP is a parallelogram in which $\angle PMO = 33.33^\circ$, $\angle OMN = 24.81^\circ$, $\angle PQO = 106.74^\circ$. Calculate $\angle PNO$

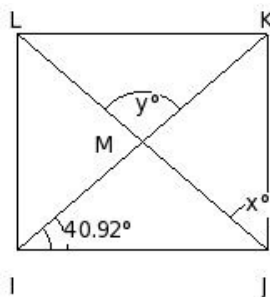


- (i) 74.42° (ii) 75.42° (iii) 73.42° (iv) 71.42° (v) 72.42°

18. In the adjoining figure, HIJK is a rectangle. If $\angle JHI = 40.36^\circ$, find $\angle JLI$

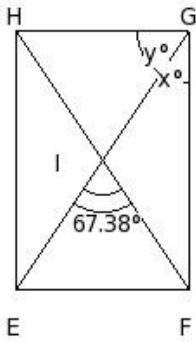


- (i) 79.72° (ii) 82.72° (iii) 78.72° (iv) 80.72° (v) 81.72°
19. Three angles of quadrilateral measure 45.82° , 105.67° and 144.46° respectively. Find the measure of the fourth angle
- (i) 62.05° (ii) 65.05° (iii) 66.05° (iv) 63.05° (v) 64.05°
20. Three angles of a quadrilateral are equal and the fourth angle measure 71.38° . What is the measure of each of the equal angles?
- (i) 97.21° (ii) 94.21° (iii) 96.21° (iv) 95.21° (v) 98.21°
21. Two angles of a quadrilateral are of measure 62.18° and 93.56° respectively and the other two angles are equal. Find the measure of each of the equal angles.
- (i) 102.13° (ii) 100.13° (iii) 103.13° (iv) 101.13° (v) 104.13°
22. A quadrilateral has three acute angles, each measuring 53° . What is the measure of its fourth angle?
- (i) 199.00° (ii) 203.00° (iii) 200.00° (iv) 201.00° (v) 202.00°
23. One angle of a parallelogram measures $E = 59.3^\circ$. Find the measure of each of its remaining angles.
- (i) $F = 122.7^\circ, G = 61.3^\circ, H = 122.7^\circ$ (ii) $F = 120.7^\circ, G = 59.3^\circ, H = 120.7^\circ$ (iii) $F = 119.7^\circ, G = 58.3^\circ, H = 119.7^\circ$
 (iv) $F = 118.7^\circ, G = 57.3^\circ, H = 118.7^\circ$ (v) $F = 121.7^\circ, G = 60.3^\circ, H = 121.7^\circ$
24. Two adjacent angles of a parallelogram are in the ratio 2 : 2. Find the measure of each of its angles.
- (i) $A = 90^\circ, B = 90^\circ, C = 90^\circ, D = 90^\circ$ (ii) $A = 91^\circ, B = 89^\circ, C = 92^\circ, D = 88^\circ$ (iii) $A = 88^\circ, B = 92^\circ, C = 89^\circ, D = 91^\circ$
 (iv) $A = 89^\circ, B = 88^\circ, C = 91^\circ, D = 92^\circ$ (v) $A = 92^\circ, B = 89^\circ, C = 88^\circ, D = 91^\circ$
25. In the figure given below, IJKL is a rectangle. Find the values of x and y



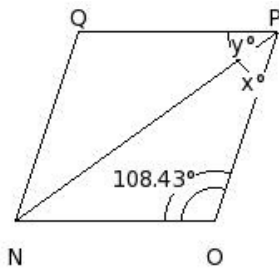
- (i) $x = 51.08^\circ, y = 100.16^\circ$ (ii) $x = 50.08^\circ, y = 99.16^\circ$ (iii) $x = 48.08^\circ, y = 97.16^\circ$ (iv) $x = 49.08^\circ, y = 98.16^\circ$
 (v) $x = 47.08^\circ, y = 96.16^\circ$

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



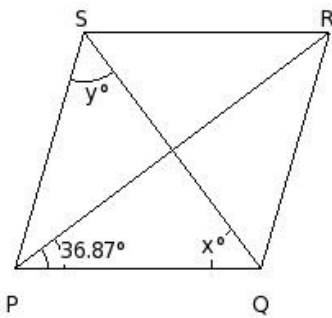
- (i) $x=32.69^\circ, y=55.31^\circ$ (ii) $x=31.69^\circ, y=54.31^\circ$ (iii) $x=33.69^\circ, y=56.31^\circ$ (iv) $x=35.69^\circ, y=58.31^\circ$
 (v) $x=34.69^\circ, y=57.31^\circ$

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



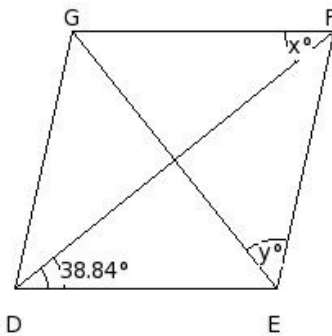
- (i) $x=33.78^\circ, y=33.78^\circ$ (ii) $x=36.78^\circ, y=36.78^\circ$ (iii) $x=35.78^\circ, y=35.78^\circ$ (iv) $x=37.78^\circ, y=37.78^\circ$
 (v) $x=34.78^\circ, y=34.78^\circ$

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



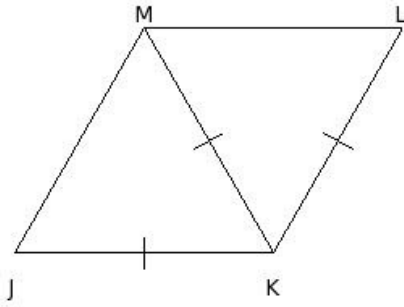
- (i) $x=53.13^\circ, y=53.13^\circ$ (ii) $x=54.13^\circ, y=54.13^\circ$ (iii) $x=52.13^\circ, y=52.13^\circ$ (iv) $x=51.13^\circ, y=51.13^\circ$
 (v) $x=55.13^\circ, y=55.13^\circ$

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



- (i) $x=40.84^\circ, y=53.16^\circ$ (ii) $x=39.84^\circ, y=52.16^\circ$ (iii) $x=37.84^\circ, y=50.16^\circ$ (iv) $x=38.84^\circ, y=51.16^\circ$
 (v) $x=36.84^\circ, y=49.16^\circ$

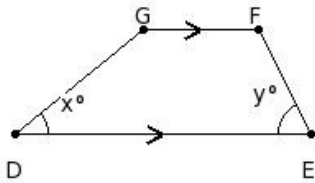
30. One of the diagonals of a rhombus is equal to one of its sides. Find the angles of the rhombus



- (i) $J=61^\circ, K=119^\circ, L=62^\circ, M=118^\circ$ (ii) $J=60^\circ, K=120^\circ, L=60^\circ, M=120^\circ$ (iii) $J=62^\circ, K=119^\circ, L=58^\circ, M=121^\circ$
 (iv) $J=58^\circ, K=122^\circ, L=59^\circ, M=121^\circ$ (v) $J=59^\circ, K=118^\circ, L=61^\circ, M=122^\circ$

31. In the adjoining figure, DEFG is a trapezium in which $\overline{DE} \parallel \overline{FG}$.

If $x = 38.93^\circ$ and $y = 63.07^\circ$, find the measures of $\angle F$ and $\angle G$.

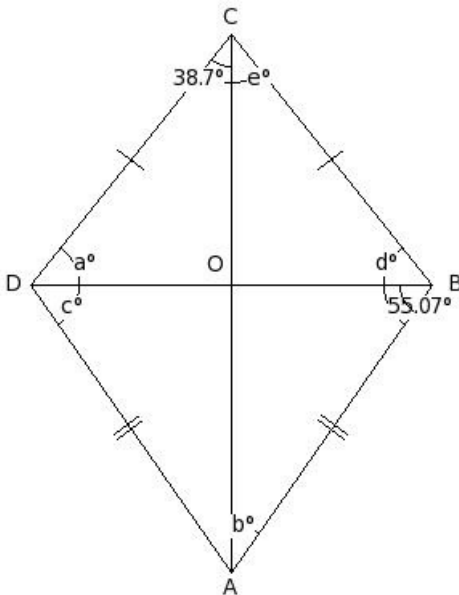


- (i) $F=115.93^\circ, G=140.07^\circ$ (ii) $F=114.93^\circ, G=139.07^\circ$ (iii) $F=118.93^\circ, G=143.07^\circ$
 (iv) $F=116.93^\circ, G=141.07^\circ$ (v) $F=117.93^\circ, G=142.07^\circ$

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

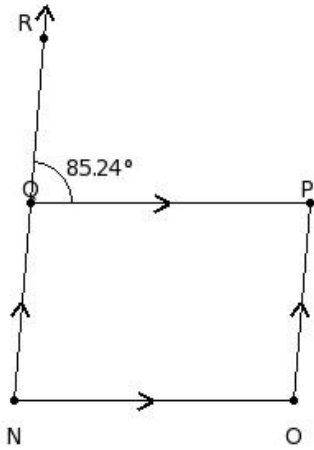
32. and the diagonals \overline{BD} and \overline{AC} intersect at O.

If $\angle OCD = 38.7^\circ$ and $\angle ABO = 55.07^\circ$, find the measure of each of the angles marked a, b, c, d and e.



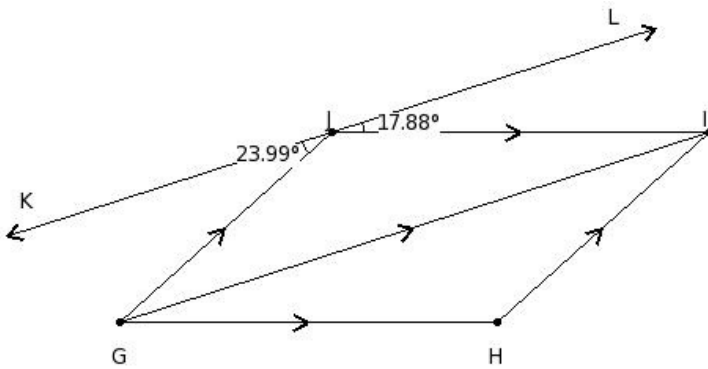
- (i) $a = 51.3^\circ, b = 34.93^\circ, c = 55.07^\circ, d = 51.3^\circ, e = 38.7^\circ$
 (ii) $a = 51.3^\circ, b = 35.93^\circ, c = 54.07^\circ, d = 51.3^\circ, e = 38.7^\circ$
 (iii) $a = 51.3^\circ, b = 35.93^\circ, c = 54.07^\circ, d = 53.3^\circ, e = 38.7^\circ$
 (iv) $a = 51.3^\circ, b = 35.93^\circ, c = 55.07^\circ, d = 51.3^\circ, e = 38.7^\circ$
 (v) $a = 51.3^\circ, b = 35.93^\circ, c = 54.07^\circ, d = 53.3^\circ, e = 36.7^\circ$

33. In the adjoining figure, side QN of parallelogram NOPQ has been produced to R. If $\angle PQR = 85.24^\circ$, find the measure of each angle of the parallelogram.



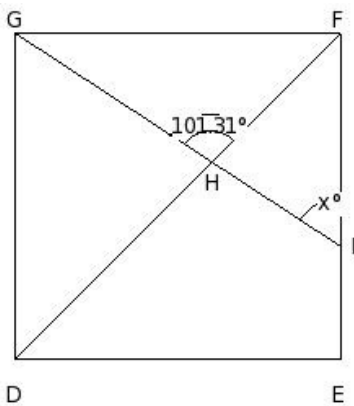
- (i) $N=86.24^\circ, O=93.76^\circ, P=87.24^\circ, Q=92.76^\circ$ (ii) $N=85.24^\circ, O=94.76^\circ, P=85.24^\circ, Q=94.76^\circ$
 (iii) $N=84.24^\circ, O=92.76^\circ, P=86.24^\circ, Q=96.76^\circ$ (iv) $N=83.24^\circ, O=96.76^\circ, P=84.24^\circ, Q=95.76^\circ$
 (v) $N=87.24^\circ, O=93.76^\circ, P=83.24^\circ, Q=95.76^\circ$

34. In the adjoining figure, GHIJ is a parallelogram and KL is such that $\overline{KL} \parallel \overline{GI}$. If $\angle GJK = 23.99^\circ$ and $\angle IJL = 17.88^\circ$, find the measure of $\angle IJG$.



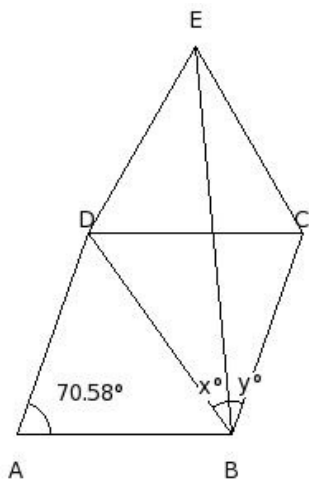
- (i) 137.13° (ii) 136.13° (iii) 138.13° (iv) 139.13° (v) 140.13°

35. In the adjoining figure, DEFG is a square. A line segment GI cuts the side EF at I and the diagonal DF at H such that $\angle GHF = 101.31^\circ$ and $\angle HIF = x^\circ$. Find the value of x .



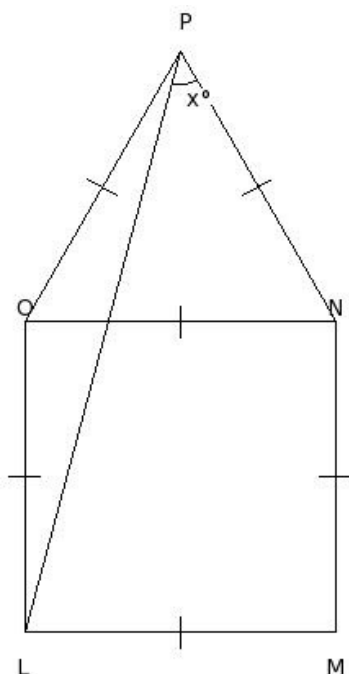
- (i) 57.31° (ii) 58.31° (iii) 54.31° (iv) 55.31° (v) 56.31°

36. In the adjoining figure, ABCD is a rhombus and $\triangle EDC$ is an equilateral triangle. E and B are on opposite sides of CD. If $\angle DAB = 70.58^\circ$, find the values of x and y .



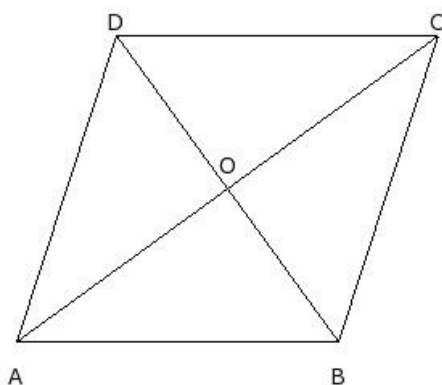
- (i) $x=32^\circ, y=26.71^\circ$ (ii) $x=29^\circ, y=23.71^\circ$ (iii) $x=31^\circ, y=25.71^\circ$ (iv) $x=30^\circ, y=24.71^\circ$
 (v) $x=28^\circ, y=22.71^\circ$

37. In the adjoining figure, equilateral $\triangle ONP$ surmounts square LMNO. If $\angle NPL = x^\circ$, find the value of x .



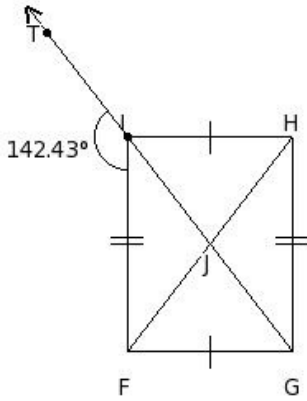
- (i) 46° (ii) 44° (iii) 43° (iv) 47° (v) 45°

38. In the adjoining figure, ABCD is a rhombus whose diagonals intersect at O. If $\angle OAB : \angle ABO = 2 : 3$, find the angles of $\triangle OAB$.



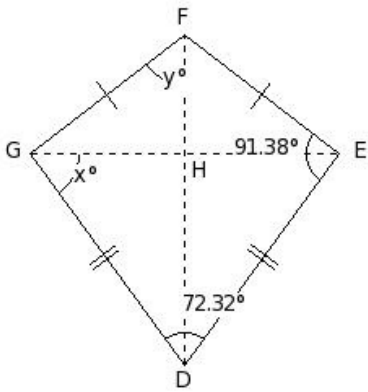
- (i) $O=88^\circ, A=38^\circ, B=54^\circ$ (ii) $O=92^\circ, A=36^\circ, B=52^\circ$ (iii) $O=90^\circ, A=36^\circ, B=54^\circ$ (iv) $O=88^\circ, A=36^\circ, B=56^\circ$
 (v) $O=90^\circ, A=34^\circ, B=56^\circ$

39. In the given figure, FGHI is a rectangle whose diagonals intersect at J. Diagonal GI is produced to T and $\angle FIT = 142.43^\circ$. Find the angles of $\triangle JGH$.



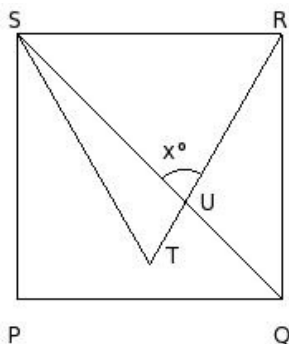
- (i) $J=104.86^\circ, G=35.57^\circ, H=39.57^\circ$ (ii) $J=102.86^\circ, G=39.57^\circ, H=37.57^\circ$
 (iii) $J=104.86^\circ, G=37.57^\circ, H=37.57^\circ$ (iv) $J=106.86^\circ, G=37.57^\circ, H=35.57^\circ$
 (v) $J=102.86^\circ, G=37.57^\circ, H=39.57^\circ$

40. In the given figure, DEFG is a kite whose diagonals intersect at H. If $\angle GDE = 72.32^\circ$ and $\angle DEF = 91.38^\circ$, calculate $\angle HGD$ and $\angle HFG$.



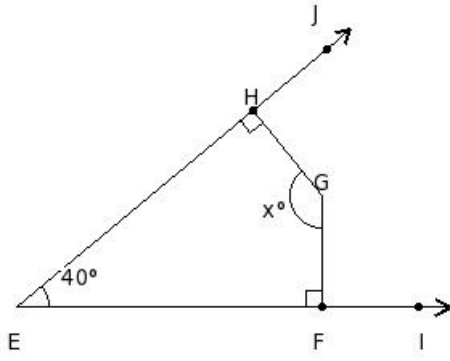
- (i) $x=51.84^\circ, y=50.46^\circ$ (ii) $x=53.84^\circ, y=52.46^\circ$ (iii) $x=55.84^\circ, y=54.46^\circ$ (iv) $x=54.84^\circ, y=53.46^\circ$
 (v) $x=52.84^\circ, y=51.46^\circ$

41. $\triangle TRS$ is an equilateral triangle in a square PQRS. If QS and TR intersect at U, then find the value of x.



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

42. In the adjoining figure, G is a point in the interior of $\angle IEJ$.
If $GF \perp EI$ and $GH \perp EJ$ and $\angle IEJ = 40^\circ$, find the measure of x .



- (i) 138° (ii) 141° (iii) 139° (iv) 142° (v) 140°

Assignment Key

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