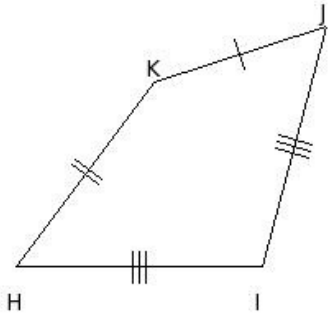
EduSahara™ Worksheet

Name : Chapter Based Worksheet

Chapter : Quadrilaterals

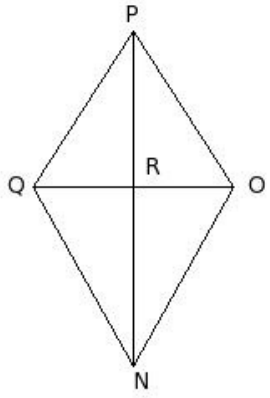
Grade : CBSE Grade IX

1. Identify the figure below



(i) quadrilateral (ii) decagon (iii) circle (iv) hexagon (v) pentagon

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

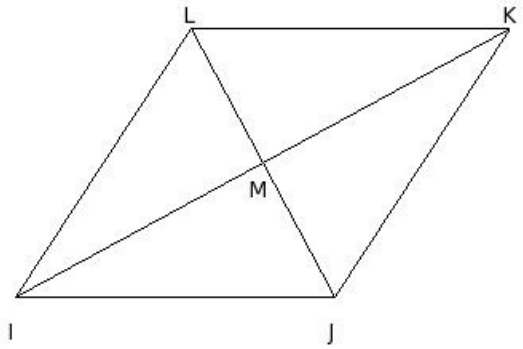


(i) ∠QNR (ii) ∠RPO (iii) ∠RPQ (iv) ∠NRQ (v) ∠QRP

3. The figure formed by successively joining the mid-points of the sides of a rhombus is

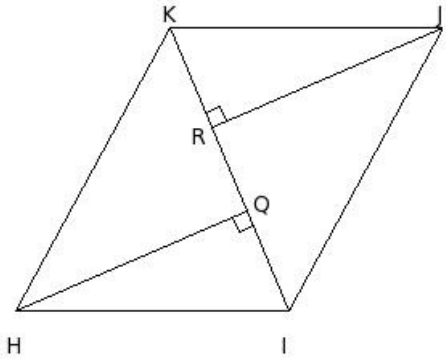
(i) square (ii) rhombus (iii) parallelogram (iv) rectangle

4. In rhombus IJKL, diagonals $\overline{IK}$ and $\overline{JL}$ intersect at M. Then $\angle IJK =$



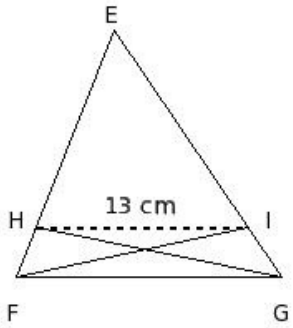
(i) ∠LIJ (ii) ∠JKL (iii) ∠IJM (iv) ∠KLI

5. In the given figure, HIJK is a parallelogram. HQ and JR are perpendicular to the diagonal IK. Given ∠QHI = 23°, find ∠JKI



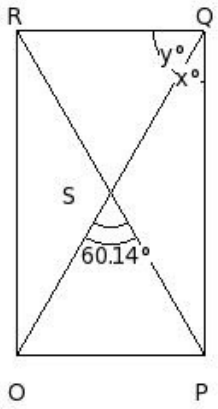
(i) 66° (ii) 68° (iii) 67° (iv) 69° (v) 65°

6. In the given $\triangle EFG$, $HF = \frac{1}{4}$ EF and $IG = \frac{1}{4}$ EG. If HI = 13 cm, find FG



(i) 19.33 cm (ii) 17.33 cm (iii) 15.33 cm (iv) 18.33 cm (v) 16.33 cm

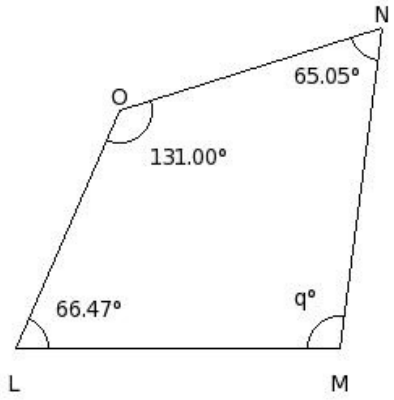
7. In the figure given below, OPQR is a rectangle. Find the values of x and y



(i) x=29.07°,y=58.93° (ii) x=32.07°,y=61.93° (iii) x=28.07°,y=57.93° (iv) x=30.07°,y=59.93°

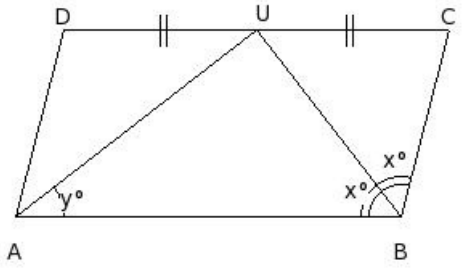
(v) x=31.07°,y=60.93°

8. Find the missing angle in the given quadrilateral



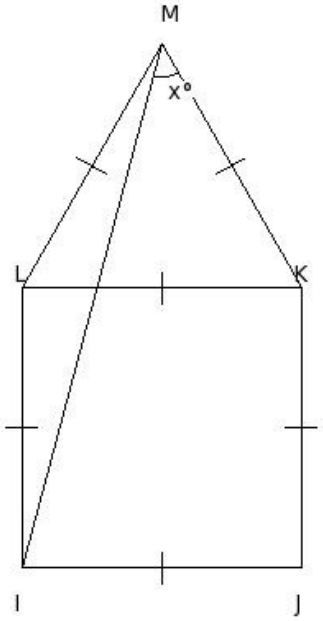
(i) 102.48° (ii) 127.48° (iii) 107.48° (iv) 97.48° (v) 112.48°

9. In the given figure, ABCD is a parallelogram. U is the mid-point of CD. BU bisects $\angle B$. If $x = 52°$, find angle 'y'.



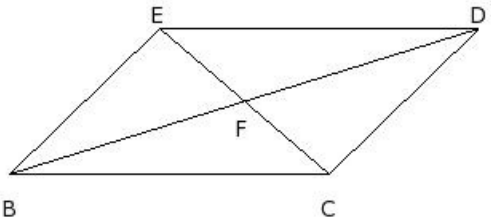
(i) 40° (ii) 39° (iii) 38° (iv) 37° (v) 36°

10. In the adjoining figure, equilateral △LKM surmounts square IJKL. If KMI = x°, find the value of x.



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

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

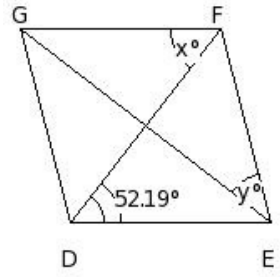


(i) △BCD (ii) △DEF (iii) △EBC (iv) △BCF (v) △DEB

12. The quadrilateral whose diagonals are equal and are perpendicular bisectors is a

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

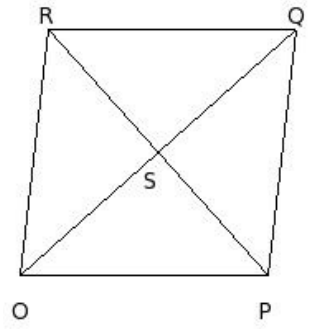
13. In the figure given below, DEFG is a rhombus. Find the values of x and y



(i) $x=54.19°, y=39.81°$ (ii) $x=51.19°, y=36.81°$ (iii) $x=52.19°, y=37.81°$ (iv) $x=53.19°, y=38.81°$

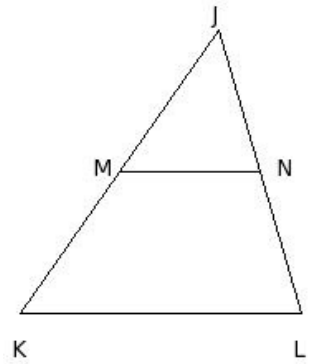
(v) $x=50.19°, y=35.81°$

14. In rhombus OPQR, diagonals $\overline{OQ}$ and $\overline{PR}$ intersect at S. Then $\triangle OPQ \cong$



(i) $\triangle PQR$ (ii) $\triangle ROP$ (iii) $\triangle SOP$ (iv) $\triangle QRO$

15. In the given figure $\triangle JKL$,
M is the mid-point of $\overline{JK}$ and $\overline{MN} \parallel \overline{KL}$, then JN =

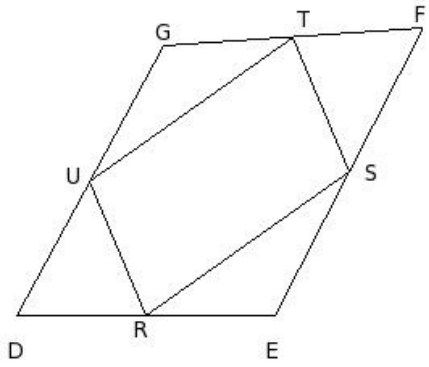


(i) JK (ii) MK (iii) JM (iv) LJ (v) NL

16. Which of the following is a regular polygon with four sides?

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

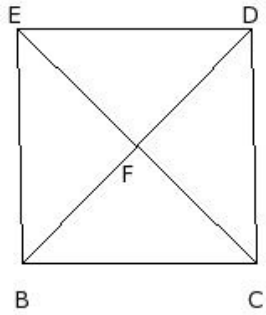
17. DEFG is a quadrilateral. R, S, T and U are mid-points of DE, EF, FG and GD respectively.If DF = 31 cm and EG = 18 cm, find the measure of the sides of RSTU.



(i) 18 cm, 9 cm, 18 cm, 9 cm (ii) 15.5 cm, 8 cm, 15.5 cm, 8 cm (iii) 15.5 cm, 9 cm, 15.5 cm, 9 cm

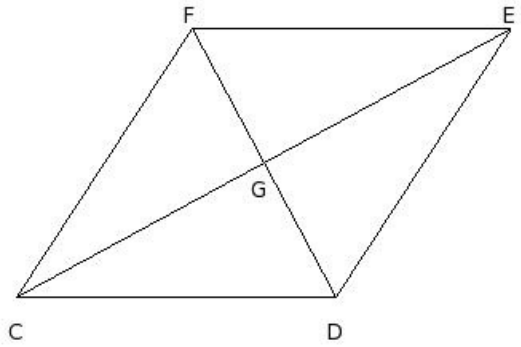
(iv) 15.5 cm, 7 cm, 15.5 cm, 7 cm (v) 16 cm, 9 cm, 16 cm, 9 cm

18. In rhombus BCDE, diagonals $\overline{BD}$ and $\overline{CE}$ intersect at F. Then $\overline{CD} \parallel$



(i) $\overline{CE}$ (ii) $\overline{EB}$ (iii) $\overline{DE}$ (iv) $\overline{BC}$

19. In rhombus CDEF, diagonals $\overline{CE}$ and $\overline{DF}$ intersect at G. Then $\triangle FCD \cong$



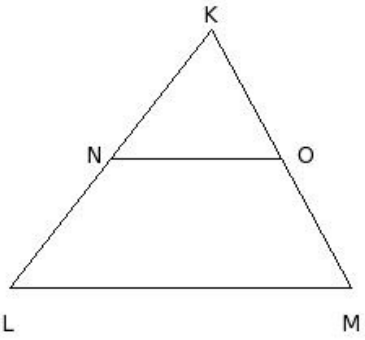
(i) $\triangle CDE$ (ii) $\triangle EFC$ (iii) $\triangle DEF$ (iv) $\triangle GCD$

20. Which of the following properties apply for a parallelogram ?

a) Adjacent angles are supplementary
b) Diagonals are perpendicular to each other
c) Opposite sides are equal
d) Diagonals bisect each other
e) Diagonals are equal to each other
f) Opposite angles are equal

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

21. In the given figure $\triangle KLM$,
N is the mid-point of $\overline{KL}$ and $\overline{NO} \parallel \overline{LM}$, then $KN =$

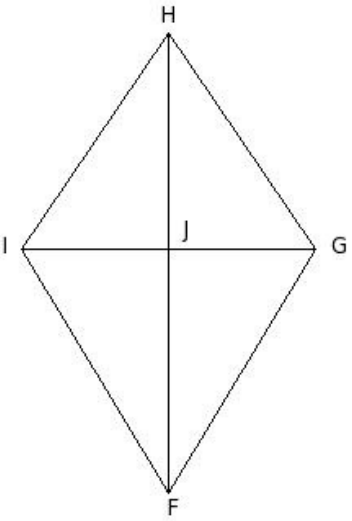


(i) $\frac{MK}{2}$ (ii) KO (iii) $\frac{KL}{2}$ (iv) $\frac{LM}{2}$ (v) LM

22. The figure formed by successively joining the mid-points of the sides of a parallelogram is
(i) rectangle (ii) square (iii) parallelogram (iv) rhombus

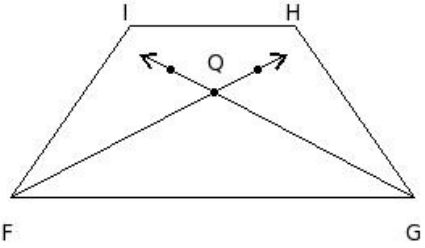
23. The diagonals do not divide the quadrilateral into congruent triangles in which figure?
(i) rectangle (ii) square (iii) rhombus (iv) trapezium (v) parallelogram

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



(i) ∠FJI (ii) ∠JHI (iii) ∠JHG (iv) ∠GFJ (v) ∠IJH

25. FGHI is an isosceles trapezium. FQ and GQ are angular bisector of ∠F & ∠G. If ∠F = 55°, find ∠FQG



(i) 124° (ii) 125° (iii) 123° (iv) 126° (v) 127°

Assignment Key

1) (i)	2) (i)	3) (iv)	4) (iv)	5) (iii)	6) (ii)
7) (iv)	8) (iv)	9) (iii)	10) (ii)	11) (iii)	12) (iv)
13) (iii)	14) (iv)	15) (v)	16) (i)	17) (iii)	18) (ii)
19) (iii)	20) (i)	21) (iii)	22) (iii)	23) (iv)	24) (iv)
25) (ii)					