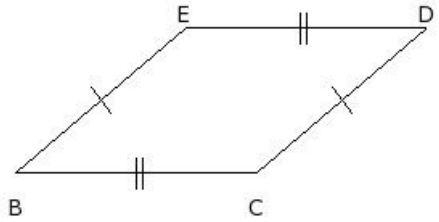
EduSahara™ Worksheet

Name : Chapter Based Worksheet

Chapter : Quadrilaterals

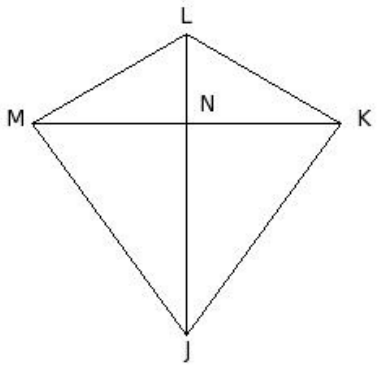
Grade : SSC Grade IX

1. Identify the figure below



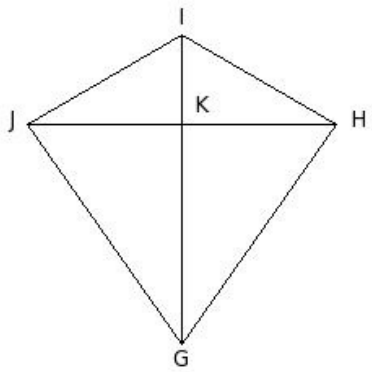
(i) parallelogram (ii) triangle (iii) angle (iv) kite (v) circle

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



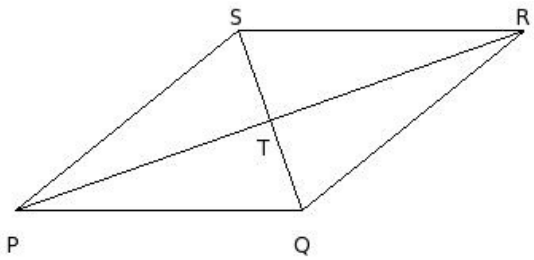
(i) $\triangle NMJ$ (ii) $\triangle MKL$ (iii) $\triangle NLK$ (iv) $\triangle NLM$ (v) $\triangle MKJ$

3. In kite GHIJ, $\overline{GI}$ and $\overline{HJ}$ are diagonals. Then $\angle KIH =$



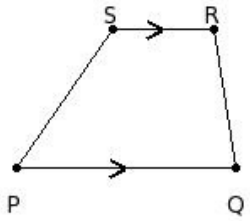
(i) $\angle KIJ$ (ii) $\angle JGK$ (iii) $\angle JKI$ (iv) $\angle GKJ$ (v) $\angle HGK$

4. In rhombus PQRS, diagonals $\overline{PR}$ and $\overline{QS}$ intersect at T. Then $\angle TPQ \neq$



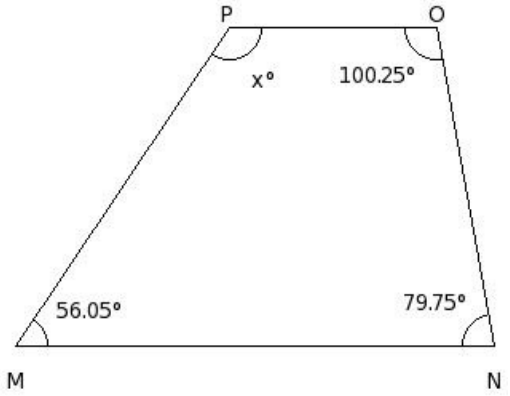
(i) $\angle SPT$ (ii) $\angle QRT$ (iii) $\angle TRS$ (iv) $\angle PTS$

5. Identify the figure below



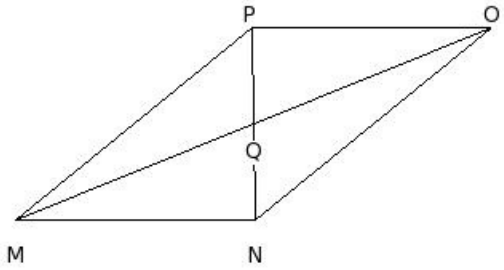
(i) square (ii) angle (iii) trapezium (iv) circle (v) kite

6. Find the missing angle in the given trapezium



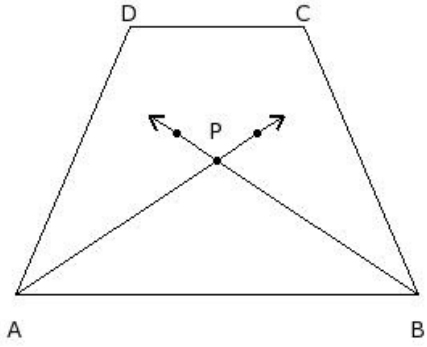
(i) 128.95° (ii) 123.95° (iii) 133.95° (iv) 153.95° (v) 138.95°

7. In the adjoining figure, MNOP is a parallelogram in which $\angle PMO = 17.1°, \angle OMN = 21.93°, \angle PQO = 69.02°$. Calculate $\angle NOM$



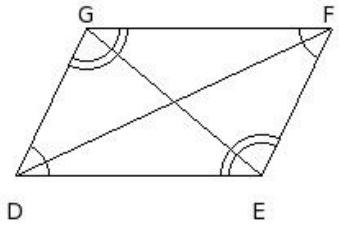
(i) 17.10° (ii) 19.10° (iii) 16.10° (iv) 15.10° (v) 18.10°

8. ABCD is an isosceles trapezium. AP and BP are angular bisector of $\angle A$ & $\angle B$. If $\angle A = 67°$, find $\angle APB$



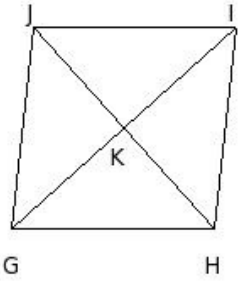
(i) 111° (ii) 113° (iii) 112° (iv) 115° (v) 114°

9. The vertices of the parallelogram are



(i) D , E , F , H (ii) D , E , G , H (iii) D , E , G , I (iv) D , E , F , I (v) D , E , F , G

10. In rhombus GHIJ , diagonals $\overline{GI}$ and $\overline{HJ}$ intersect at K . Then $\angle JGH =$

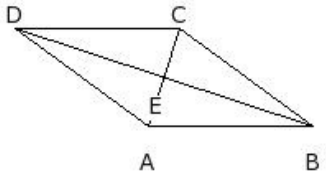


(i) $\angle IJG$ (ii) $\angle GHI$ (iii) $\angle GHK$ (iv) $\angle HIJ$

11. The measures of three angles of a quadrilateral are $62.97°, 144.24°$ and $46.46°$. Find the fourth angle

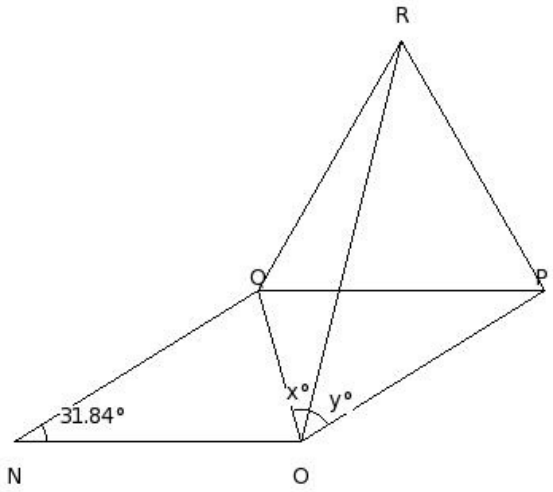
(i) $111.33°$ (ii) $106.33°$ (iii) $116.33°$ (iv) $136.33°$ (v) $121.33°$

12. In rhombus ABCD , diagonals $\overline{AC}$ and $\overline{BD}$ intersect at E . Then $\triangle EAD \ncong$



(i) $\triangle DAB$ (ii) $\triangle EAB$ (iii) $\triangle ECD$ (iv) $\triangle ECB$

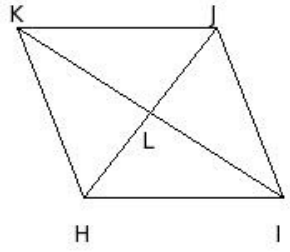
13. In the adjoining figure, NOPQ is a rhombus and $\triangle RQP$ is an equilateral triangle. R and O are on opposite sides of PQ. If $\angle QNO = 31.84°$, find the values of x and y .



(i) $x=28°, y=42.08°$ (ii) $x=31°, y=45.08°$ (iii) $x=32°, y=46.08°$ (iv) $x=29°, y=43.08°$

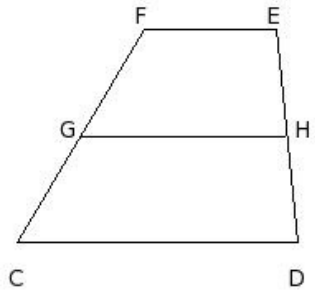
(v) $x=30°, y=44.08°$

14. In parallelogram HIJK, diagonals $\overline{IK}$ and $\overline{HJ}$ intersect at L. Then $\overline{IJ}$ ∥



(i) $\overline{HI}$ (ii) $\overline{JK}$ (iii) $\overline{KH}$ (iv) $\overline{HJ}$ (v) $\overline{IK}$

15. In the given figure, CDEF is a trapezium. G and H are mid-points of CF and DE.Given GH = 12.5 cm and EF = 8 cm, find CD



(i) 15.0 cm (ii) 16.0 cm (iii) 17.0 cm (iv) 18.0 cm (v) 19.0 cm

16. Which of the following statements are true?

a) A rhombus is a square
b) A trapezium is a parallelogram
c) A square is a rhombus
d) A parallelogram is a trapezium
e) A rectangle is a parallelogram
f) A square is a rectangle
g) A parallelogram is a rhombus

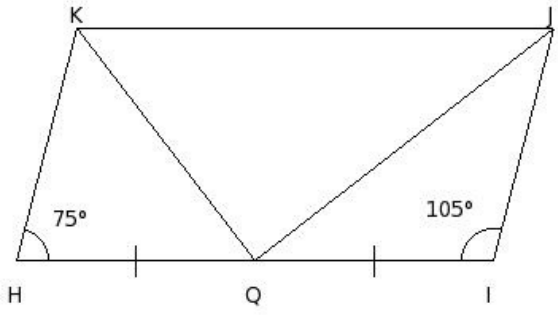
(i) {c,d,e,f} (ii) {b,f,c} (iii) {b,d} (iv) {a,c} (v) {g,a,e}

17. Which of the following statements are true?

a) Every square is a rectangle
b) Every parallelogram is a rectangle
c) Every rectangle is a parallelogram
d) Every rhombus is parallelogram
e) Every rectangle is a rhombus

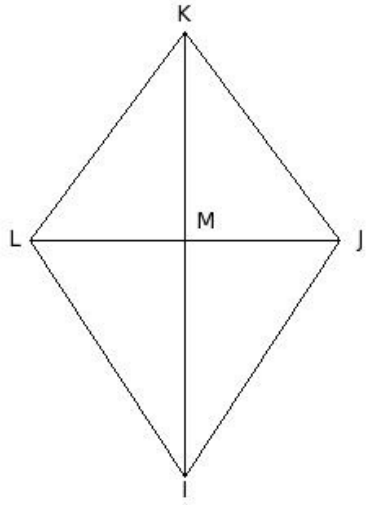
(i) {b,a,c} (ii) {b,e,d} (iii) {e,c} (iv) {a,c,d} (v) {b,a}

18. In the given figure, HIJK is a parallelogram such that Q is the mid-point of HI and HI = 2KH. Find ∠KQJ



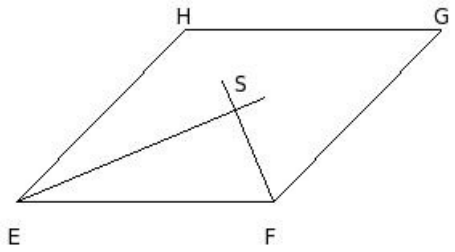
(i) 91° (ii) 89° (iii) 92° (iv) 90° (v) 88°

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



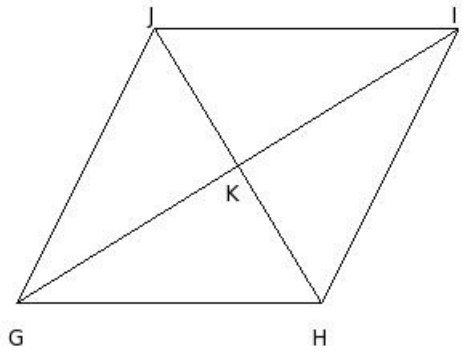
(i) ∠KLJ (ii) ∠ILJ (iii) ∠IJK (iv) ∠KLI (v) ∠IML

20. In the given figure, EFGH is a parallelogram.
If ES and FS are bisector of ∠E & ∠F, find ∠S



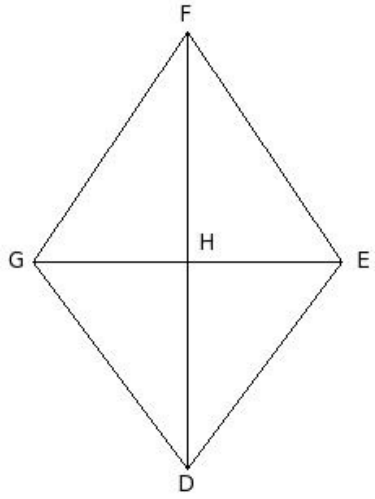
(i) 92° (ii) 89° (iii) 88° (iv) 91° (v) 90°

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



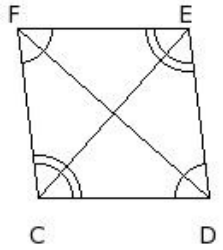
(i) HK (ii) IK (iii) JG (iv) JK

22. In kite DEFG , $\overline{DF}$ and $\overline{EG}$ are diagonals. Then $\triangle FGD \cong$



(i) $\triangle HFE$ (ii) $\triangle FED$ (iii) $\triangle HGD$ (iv) $\triangle GEF$ (v) $\triangle GED$

23. The adjacent angles of the rhombus are

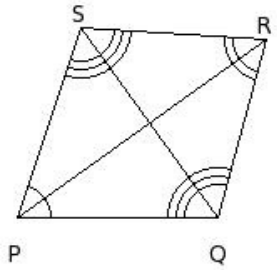


(i) $\angle C$ & $\angle E$, $\angle E$ & $\angle D$, $\angle D$ & $\angle F$, $\angle F$ & $\angle C$ (ii) $\angle C$ & $\angle D$, $\angle D$ & $\angle F$, $\angle F$ & $\angle G$, $\angle G$ & $\angle C$

(iii) $\angle C$ & $\angle D$, $\angle D$ & $\angle E$, $\angle E$ & $\angle F$, $\angle F$ & $\angle C$ (iv) $\angle C$ & $\angle E$, $\angle E$ & $\angle F$, $\angle F$ & $\angle D$, $\angle D$ & $\angle C$

(v) $\angle C$ & $\angle D$, $\angle D$ & $\angle E$, $\angle E$ & $\angle G$, $\angle G$ & $\angle C$

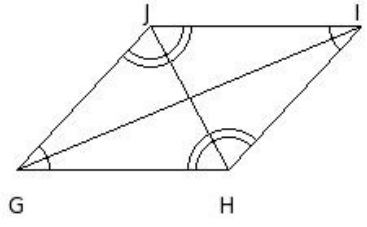
24. The opposite sides of the kite are



(i) $\overline{PQ}$ & $\overline{RS}$, $\overline{QR}$ & $\overline{SP}$ (ii) $\overline{PQ}$ & $\overline{RT}$, $\overline{QR}$ & $\overline{TP}$ (iii) $\overline{PR}$ & $\overline{QS}$, $\overline{RQ}$ & $\overline{SP}$ (iv) $\overline{PQ}$ & $\overline{ST}$, $\overline{QS}$ & $\overline{TP}$

(v) $\overline{PR}$ & $\overline{SQ}$, $\overline{RS}$ & $\overline{QP}$

25. The opposite sides of the parallelogram are



(i) $\overline{GI}$ & $\overline{HJ}$, $\overline{IH}$ & $\overline{JG}$ (ii) $\overline{GH}$ & $\overline{IK}$, $\overline{HI}$ & $\overline{KG}$ (iii) $\overline{GI}$ & $\overline{JH}$, $\overline{IJ}$ & $\overline{HG}$ (iv) $\overline{GH}$ & $\overline{IJ}$, $\overline{HI}$ & $\overline{JG}$ (v) $\overline{GH}$ & $\overline{JK}$, $\overline{HJ}$ & $\overline{KG}$

Assignment Key

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