EduSahara™ Worksheet

Name : Chapter Based Worksheet

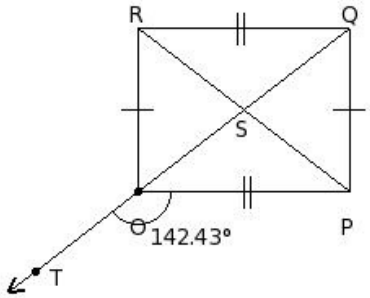
Chapter : Quadrilaterals

Grade : ICSE Grade VIII

1. Three angles of a quadrilateral are equal and the fourth angle measure 115.37°. What is the measure of each of the equal angles?

   (i) 82.54° (ii) 80.54° (iii) 81.54° (iv) 83.54° (v) 79.54°

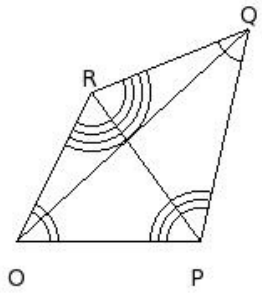
2. In the given figure, OPQR is a rectangle whose diagonals intersect at S.
   Diagonal OQ is produced to T and ∠POT = 142.43°. Find the angles of △SRO.



   (i) S=77.14°,R=52.43°,O=50.43° (ii) S=73.14°,R=54.43°,O=52.43° (iii) S=75.14°,R=52.43°,O=52.43°

   (iv) S=73.14°,R=52.43°,O=54.43° (v) S=75.14°,R=50.43°,O=54.43°

3. The adjacent angles of the quadrilateral are



   (i) ∠O & ∠P , ∠P & ∠Q , ∠Q & ∠S , ∠S & ∠O (ii) ∠O & ∠Q , ∠Q & ∠P , ∠P & ∠R , ∠R & ∠O

   (iii) ∠O & ∠Q , ∠Q & ∠R , ∠R & ∠P , ∠P & ∠O (iv) ∠O & ∠P , ∠P & ∠R , ∠R & ∠S , ∠S & ∠O

   (v) ∠O & ∠P , ∠P & ∠Q , ∠Q & ∠R , ∠R & ∠O

4. In which of the following are the diagonals equal ?

   (i) rectangle (ii) None of these (iii) parallelogram (iv) rhombus (v) trapezium

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

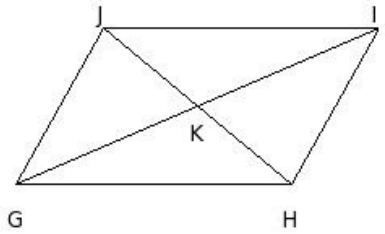
   a) Adjacent angles are supplementary
   b) Diagonals are equal to each other
   c) Diagonals are perpendicular to each other
   d) Opposite sides are equal
   e) Diagonals bisect each other
   f) Opposite angles are equal

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

6. Sum of the interior angles in a quadrilateral is

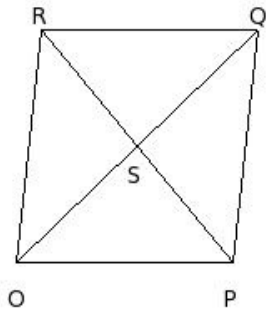
(i) 360° (ii) 390° (iii) 375° (iv) 370° (v) 365°

7. In the adjoining figure, GHIJ is a parallelogram in which $\angle JGI = 37.44°$, $\angle IGH = 23.2°$, $\angle JKI = 117.19°$. Calculate $\angle GHJ$



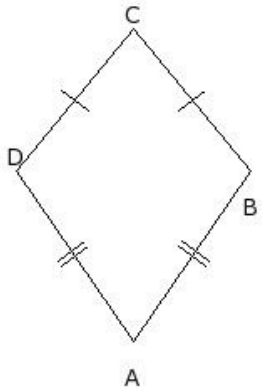
(i) 41.61° (ii) 38.61° (iii) 39.61° (iv) 40.61° (v) 37.61°

8. In parallelogram OPQR, diagonals $\overline{PR}$ and $\overline{OQ}$ intersect at S. Then QS =



(i) OS (ii) PS (iii) RO (iv) PQ (v) RS

9. Identify the figure below



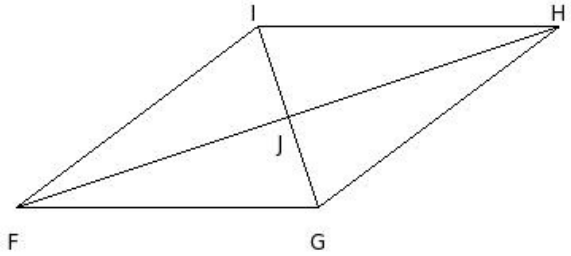
(i) circle (ii) parallelogram (iii) kite (iv) angle (v) rectangle

10. The diagonals are equal in a

a) parallelogram
b) square
c) rectangle
d) rhombus
e) trapezium

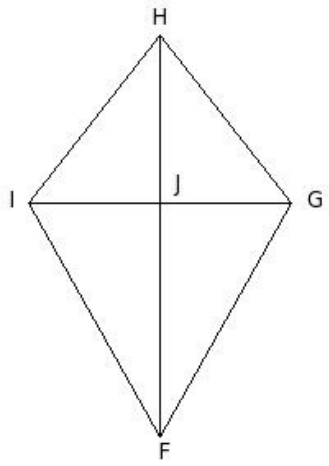
(i) {d,c,b} (ii) {e,a,b} (iii) {d,c} (iv) {a,b} (v) {b,c}

11. In rhombus FGHI, diagonals $\overline{FH}$ and $\overline{GI}$ intersect at J. Then $\angle JFG \neq$



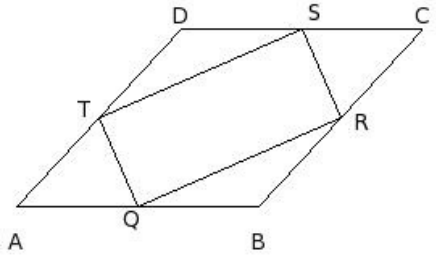
(i) $\angle IFJ$ (ii) $\angle GHJ$ (iii) $\angle JHI$ (iv) $\angle FJI$

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



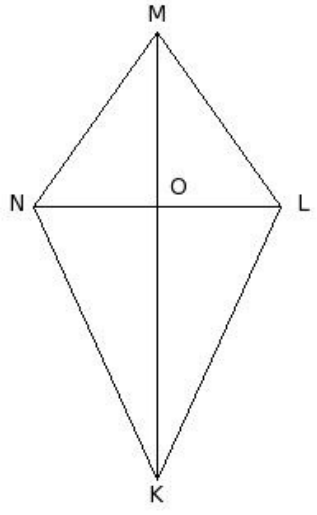
(i) $\angle HIG$ (ii) $\angle HIF$ (iii) $\angle FIG$ (iv) $\angle FJI$ (v) $\angle FGH$

13. ABCD is a rhombus. Q, R, S and T are mid-points of sides AB, BC, CD and DA. Find $\angle RST$



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

14. In kite KLMN, $\overline{KM}$ and $\overline{LN}$ are diagonals. Then $\triangle OML \cong$

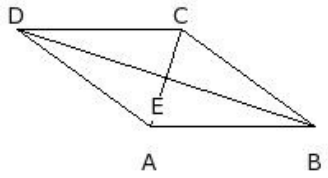


(i) $\triangle OMN$ (ii) $\triangle NLK$ (iii) $\triangle OLK$ (iv) $\triangle ONK$ (v) $\triangle NLM$

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

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

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



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

17. Which of the following properties apply for a kite ?

(i) Diagonals are perpendicular (ii) Diagonals are equal (iii) Opposite sides are equal

(iv) Opposite angles are parallel (v) Adjacent angles are equal

18. Name all quadrilaterals whose all sides are equal

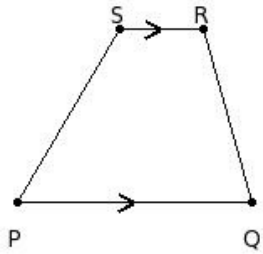
(i) square,rectangle (ii) square,kite (iii) square,rhombus (iv) square,parallelogram (v) rectangle,rhombus

19. Which of the following are true?

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

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

20. Identify the figure below

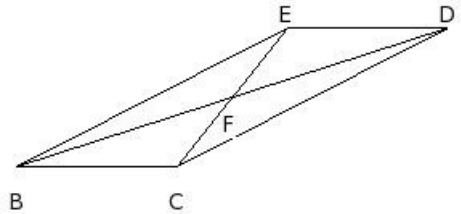


(i) angle (ii) parallelogram (iii) trapezium (iv) square (v) kite

21. In parallelogram ABCD, if $\angle C = 138.94°$, then find the value of $\angle B$

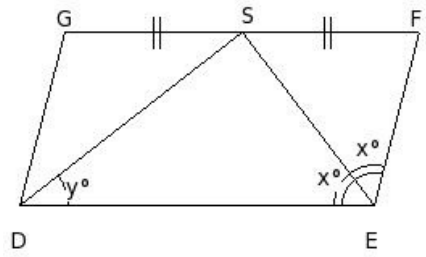
(i) 41.06° (ii) 39.06° (iii) 40.06° (iv) 42.06° (v) 43.06°

22. In parallelogram BCDE, diagonals $\overline{CE}$ and $\overline{BD}$ intersect at F. Then $\triangle EBC \cong$



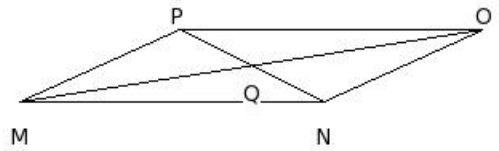
(i) $\triangle DEB$ (ii) $\triangle BCF$ (iii) $\triangle CDE$ (iv) $\triangle DEF$ (v) $\triangle BCD$

23. In the given figure, DEFG is a parallelogram. S is the mid-point of FG.
ES bisects $\angle E$. If $x = 53°$, find angle 'y'.



(i) 36° (ii) 38° (iii) 37° (iv) 39° (v) 35°

24. In parallelogram MNOP, diagonals $\overline{NP}$ and $\overline{MO}$ intersect at Q. Then $\angle OPM$ =



(i) $\angle MNQ$ (ii) $\angle PMN$ (iii) $\angle NOP$ (iv) $\angle OPQ$ (v) $\angle MNO$

25. Name all quadrilaterals whose all angles are right angles

(i) rectangle,rhombus (ii) square,kite (iii) square,parallelogram (iv) square,rectangle (v) square,rhombus

Assignment Key

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