EduSahara™ Worksheet

Name : Chapter Based Worksheet

Chapter : Quadrilaterals

Grade : CBSE Grade IX

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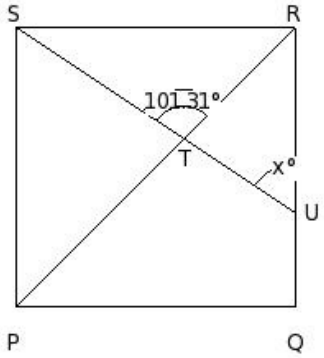
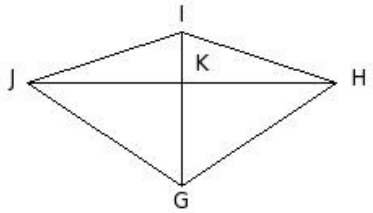
1. In the adjoining figure, PQRS is a square. A line segment SU cuts the side QR at U and the diagonal PR at T such that ∠STR = 101.31° and ∠TUR = x°. Find the value of x .



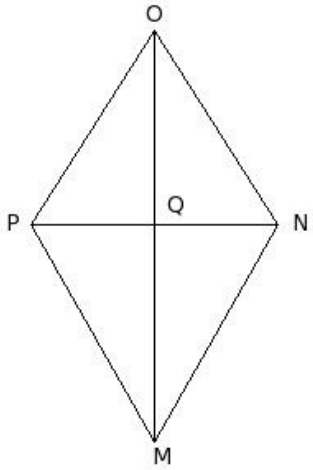
(i) 55.31° (ii) 58.31° (iii) 57.31° (iv) 56.31° (v) 54.31°

2. In kite GHIJ, $\overline{GI}$ and $\overline{HJ}$ are diagonals. Then HI =



(i) GI (ii) IJ (iii) JG (iv) HJ (v) GH

3. In kite MNOP, $\overline{MO}$ and $\overline{NP}$ are diagonals. Then ∠PMQ =



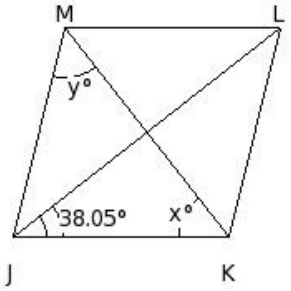
(i) ∠NMQ (ii) ∠QOP (iii) ∠MQP (iv) ∠QON (v) ∠PQO

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

(i) Opposite angles are parallel (ii) Diagonals are equal (iii) Opposite sides are equal

(iv) All Adjacent sides are equal (v) Diagonals are perpendicular

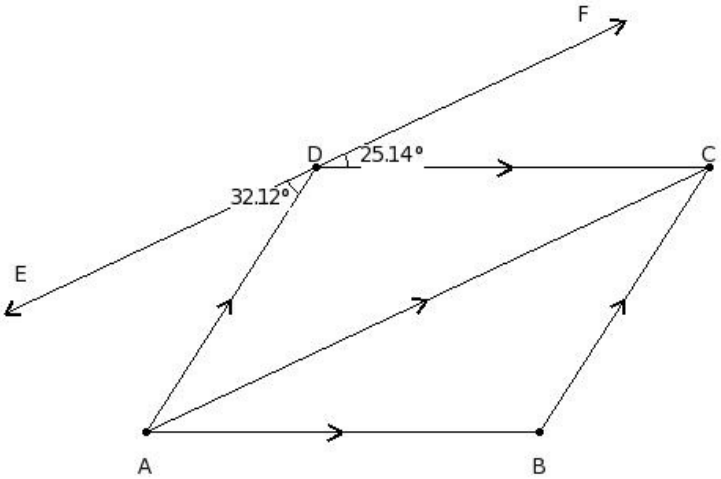
5. In the figure given below, JKLM is a rhombus. Find the values of x and y



(i) x=52.95°, y=52.95° (ii) x=51.95°, y=51.95° (iii) x=49.95°, y=49.95° (iv) x=50.95°, y=50.95°

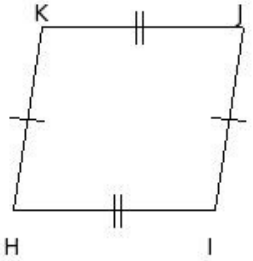
(v) x=53.95°, y=53.95°

6. In the adjoining figure, ABCD is a parallelogram and EF is such that $\overline{EF} \parallel \overline{AC}$
If $\angle ADE = 32.12°$ and $\angle CDF = 25.14°$, find the measure of $\angle ABC$.



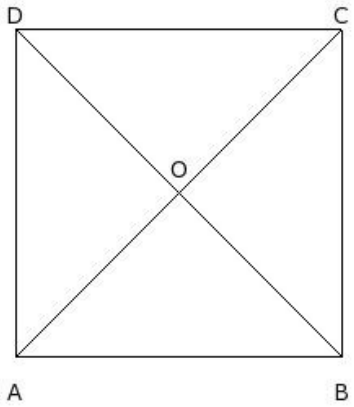
(i) 120.73° (ii) 121.73° (iii) 123.73° (iv) 124.73° (v) 122.73°

7. Identify the figure below



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

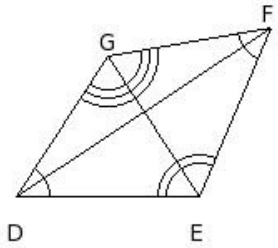
8. In the adjoining figure, $ABCD$ is a rhombus whose diagonals intersect at O.
If $\angle OAB : \angle ABO = 5 : 5$, find the angles of $\triangle OAB$.



(i) $O=88°, A=45°, B=47°$ (ii) $O=92°, A=45°, B=43°$ (iii) $O=90°, A=45°, B=45°$ (iv) $O=88°, A=47°, B=45°$

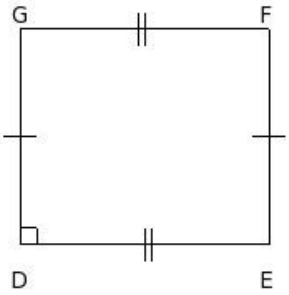
(v) $O=90°, A=43°, B=47°$

9. The diagonals of the quadrilateral are



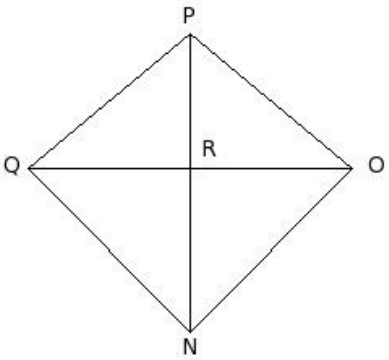
(i) $\overline{FG}, \overline{DE}$ (ii) $\overline{EG}, \overline{DF}$ (iii) $\overline{FE}, \overline{DG}$ (iv) $\overline{EH}, \overline{DF}$ (v) $\overline{EH}, \overline{DG}$

10. Identify the figure below



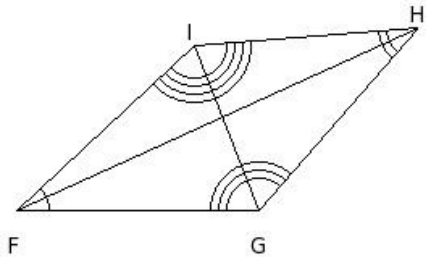
(i) trapezium (ii) circle (iii) rhombus (iv) square (v) rectangle

11. In kite $NOPQ$, $\overline{NP}$ and $\overline{OQ}$ are diagonals. Then $\triangle RPQ \cong$



(i) $\triangle QON$ (ii) $\triangle RPO$ (iii) $\triangle RON$ (iv) $\triangle QOP$ (v) $\triangle RQN$

12. The angles of the quadrilateral are



(i) $\angle F$, $\angle G$, $\angle I$, $\angle K$ (ii) $\angle F$, $\angle G$, $\angle I$, $\angle J$ (iii) $\angle F$, $\angle G$, $\angle H$, $\angle J$ (iv) $\angle F$, $\angle G$, $\angle H$, $\angle K$

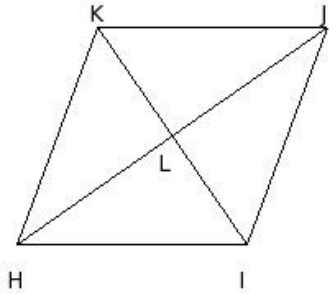
(v) $\angle F$, $\angle G$, $\angle H$, $\angle I$

13. Name all quadrilaterals whose opposite angles are equal

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

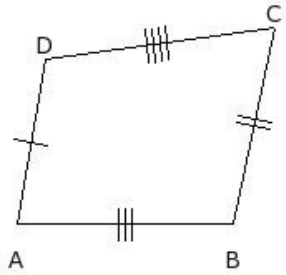
(v) parallelogram,square,rhombus,rectangle

14. In rhombus HIJK, diagonals $\overline{HJ}$ and $\overline{IK}$ intersect at L. Then $HI \neq$



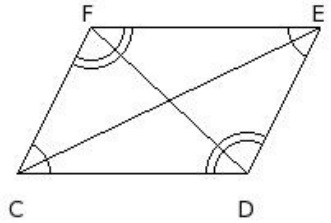
(i) IJ (ii) KH (iii) JK (iv) IK

15. Identify the figure below



(i) quadrilateral (ii) pentagon (iii) angle (iv) triangle (v) heptagon

16. The name of the parallelogram is

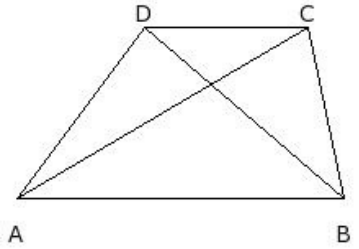


(i) CDEF (ii) CEDF (iii) CDEG (iv) CEFD (v) CDFG

17. The figure formed by successively joining the mid-points of the sides of a rectangle is

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

18. In trapezium $ABCD$, $\overline{AC}$ and $\overline{BD}$ are diagonals. Then $\overline{CD} \parallel$

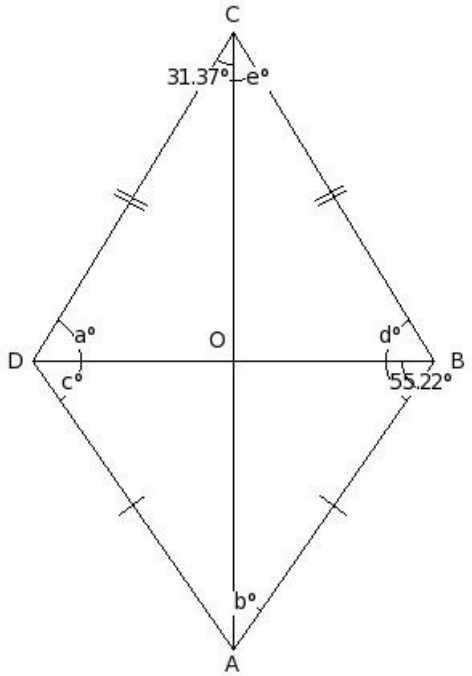


(i) $\overline{BC}$ (ii) $\overline{AB}$ (iii) $\overline{DA}$ (iv) $\overline{BD}$ (v) $\overline{AC}$

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

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

If ∠OCD = 31.37° and ∠ABO = 55.22°, find the measure of each of the angles marked a,b,c,d and e.



(i) a = 58.63° , b = 34.78° , c = 55.22° , d = 58.63° , e = 31.37°

(ii) a = 58.63° , b = 35.78° , c = 55.22° , d = 58.63° , e = 31.37°

(iii) a = 58.63° , b = 35.78° , c = 54.22° , d = 60.63° , e = 31.37°

(iv) a = 58.63° , b = 35.78° , c = 54.22° , d = 58.63° , e = 31.37°

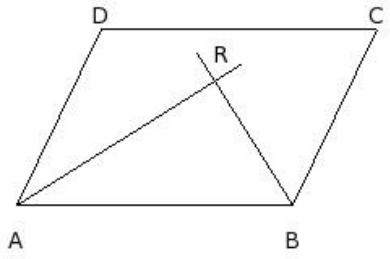
(v) a = 58.63° , b = 35.78° , c = 54.22° , d = 60.63° , e = 29.37°

20. Which of the following statements are true?

a) In a parallelogram, both adjacent angles can be right angles
b) In a parallelogram, adjacent angles are supplementary
c) In a parallelogram, adjacent angles are complementary
d) In a parallelogram, both adjacent angles can be acute
e) In a parallelogram, both adjacent angles can be obtuse

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

21. In the given figure, ABCD is a parallelogram.
If AR and BR are bisector of $\angle A$ & $\angle B$, find $\angle R$

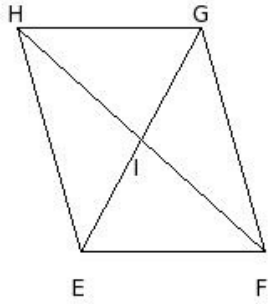


(i) 88° (ii) 90° (iii) 92° (iv) 91° (v) 89°

22. Sum of the interior angles in a quadrilateral is

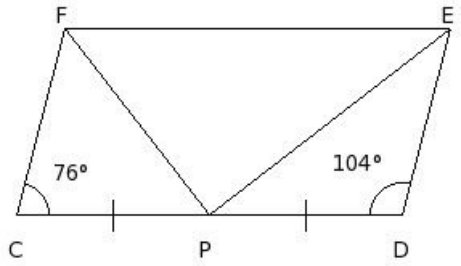
(i) 360° (ii) 365° (iii) 370° (iv) 390° (v) 375°

23. In the adjoining figure, EFGH is a parallelogram in which
$\angle HEG = 44.08°$, $\angle GEF = 61.75°$, $\angle HIG = 76.09°$. Calculate $\angle GHF$



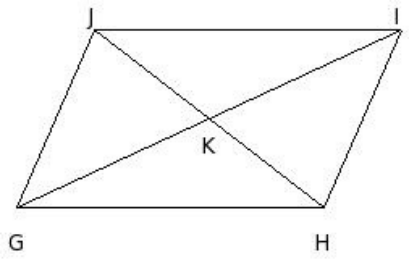
(i) 42.16° (ii) 44.16° (iii) 40.16° (iv) 43.16° (v) 41.16°

24. In the given figure, CDEF is a parallelogram such that P is the mid-point of CD and CD = 2FC. Find $\angle FPE$



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

25. In parallelogram GHIJ, diagonals $\overline{HJ}$ and $\overline{GI}$ intersect at K. Then HK =



(i) HI (ii) GK (iii) IK (iv) JK (v) JG

Assignment Key

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

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