INDIAN SCHOOL MUSCAT
SENIOR SECTION
DEPARTMENT OF MATHEMATICS
CLASS IX
WORKSHEET NO.4
CO-ORDINATE AND EUCLID'S GEOMETRY

SECTION A: (1 MARK)

1. In which quadrants the abscissa of a point is positive. *(CBSE 2012)*

2. Name the quadrants in which the following points lie P(-5,-7) Q (5,-4), R(-7,6) and S(2,-6)

3. Name the axis in which the following points lie A (5 , 0); B(0 , -5); C(-6 , 0); D(0 ,-3)
(NCERT Exemplar)

SECTION B: (2 MARKS)

4. Solve using appropriate Euclid's axioms: If x + y = 10 and that x = z. Show that z + y = 10.
(CBSE 2011)

5. Find the image of point (-4, -7) with respect to y-axis and x-axis.

6. Draw a quadrilateral whose vertices are (3, 2), (2, 3), (-4, 5) and (5, -3).

7. In the fig 1, ΔABC and ΔABD are equilateral triangles. The coordinates of A and B are (-a, 0) and (a, 0). Find the co-ordinates of points C and D. *(NCERT* Exemplar*)*

8. In the fig2, we have AC = DC, CB = CE. Show that AB = DE.

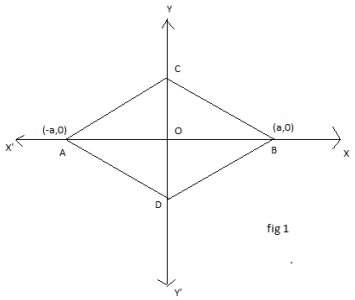


fig 1

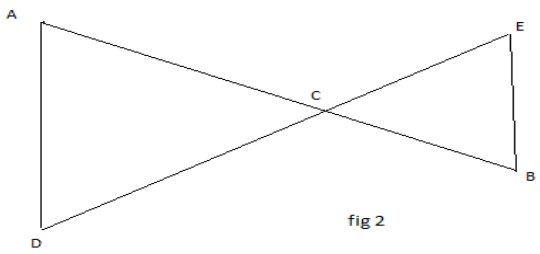
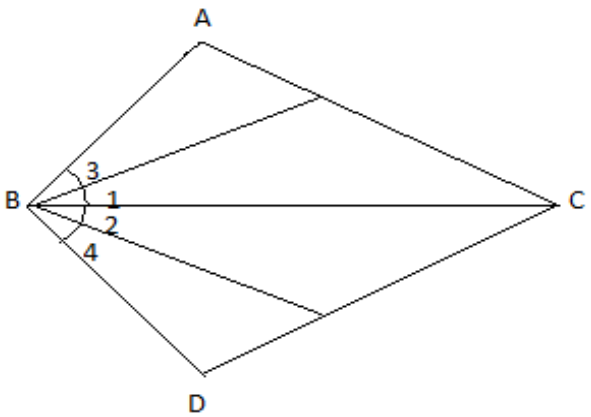


fig 2

9. In the given figure, we have ∠1=∠2 and ∠3=∠4. Show that ∠ABC = ∠DBC. State the Euclid's axiom used in this.



SECTION C: (3 MARKS)

10. The perpendicular distances from the respective axis are given as follows. Write the co-ordinates and the quadrant in which it lies.

(i) distance from the x-axis is 4 units and that from the y-axis is 5 units

(ii) 3 units above the x-axis and 2 units to the left of the y-axis

(iii) 4 units below the x-axis and 7 units to the left of the y-axis *(NCERT Exemplar)*

Find out from the following from fig 3:

11. (i) coordinates of B (ii)abscissa of point D (iii)ordinate of point F

(iv) coordinates of E (v)abscissa of point C (vi) coordinates of A

12. In the fig 4 we have∠ABC = ∠ACB and ∠3 = ∠4. Show that ∠1=∠2.

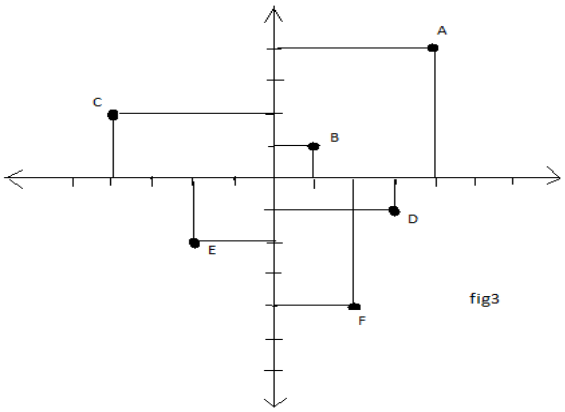


fig3

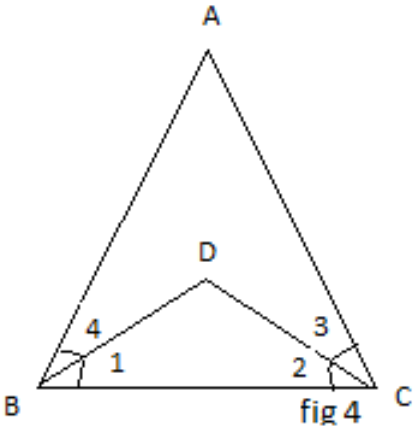


fig 4

SECTION D: (3 MARKS)

Justify the following using Euclid's axiom

13. Sunil and Shyam have the same weight. If each gain weight by 5 kg, how will their new weight be compared using the axioms? Write the Euclid's axiom that best supports your answer? (2016)

14. Two salesmen make equal sales during the month of August. In September, each salesman doubles his sale of the month of August. Compare their sales in September.

(CBSE2015)

15. In the fig AC= XD. C is the midpoint of AB and D is the midpoint of XY. Show that AB = XY