CLASS-10
CHAPTER-7
COORDINATE GEOMETRY

EXERCISE - 7.4

1. lf $(-4, 3)$ and $(4, 3)$ are two vertices of an equilateral triangle,find the coordinates of the third vertex,given that tne origin lies in the interior of the triangle

2. $\mathbf{A}(6, 1), \mathbf{B}(8, 2)$ and $\mathbf{C}(9, 4)$ are three vertices of a parallelogram **ABCD** .lf **C** is the midpaint of **DC** find the area of $\triangle$**ADE**

3. the points $\mathbf{A}(x_1, y_1), \mathbf{B}(x_2, y_2)$ and $\mathbf{C}(x_3, y_3)$ are the vertices of $\triangle$**ABC**

   (a) The median from **A** meets **BC** at **D** find the coordinates of the point **D**

   (b) Find the coordinates of the point p on **AD** such tnat **AP**.**PD**=2

   (c) Find the coordinates of points **Q** and **R** an medians **BE** and **CF**respectively such that $\mathbf{BQ} : \mathbf{QE} = 2; 1$ and $\mathbf{CRRF} = 2; 1$

   (d) What are the coordinates of the centroid of the triangle **ABC**

4. If the points $\mathbf{A}(1, -2)\mathbf{B}(2, 3)\mathbf{C}(a, 2)$ and $\mathbf{D}(-4-3)$ form pamrallelogram,find the vale of a and height of the parallelogram taking **AB** as base.

5. Students of a school are standing in rows and colums in their playgreound for a drill practice $\mathbf{A}, \mathbf{B}, \mathbf{C}$ and Dare the positions of four students as showh in figure 7,4. is it passible to place jaspal in the drill in such a woy tnat he is equidisthant from each of the four students $\mathbf{A}, \mathbf{B}, \mathbf{C}$ and **D** lf so ,what should be his position

6. Ayush starts walking from his house to office. lnstead of going to the office directly,he goes to a.bank first,from there to his daughter s school and then reaches the office what is the extra distance travelled by Ayush in reaching his office.assume that all distanes covered are in straight lines.lf the house is situated at $(2, 4)$,bank at $(5, 8)$,school at $(13, 14)$ and office at $(13, 26)$ and coordinates are in km.

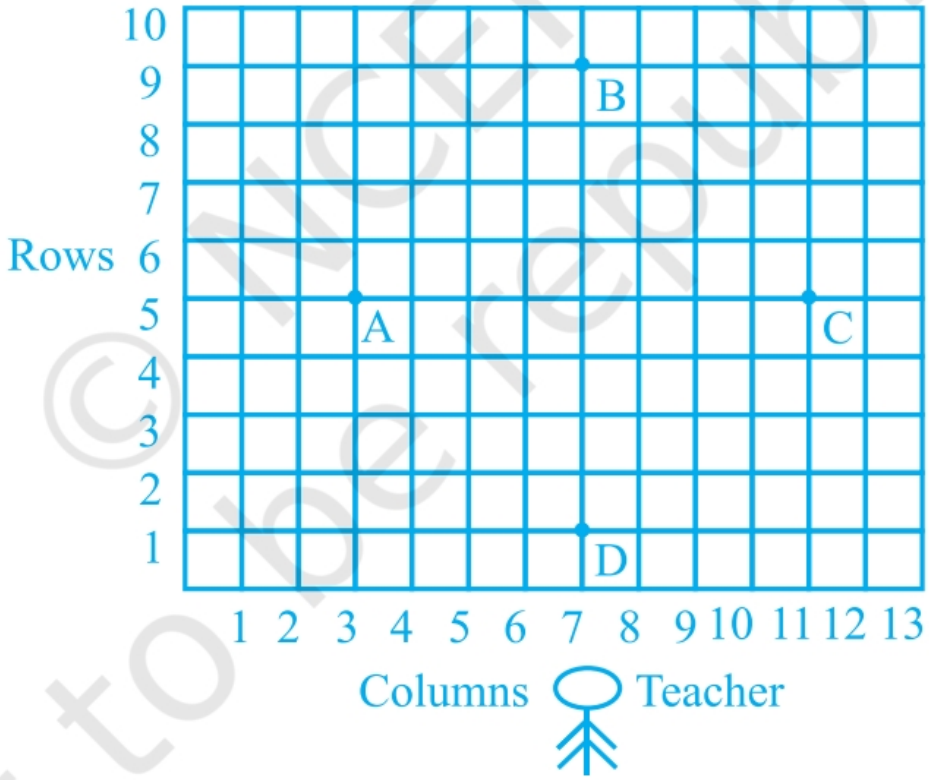

Fig. 7.4

Figure 1