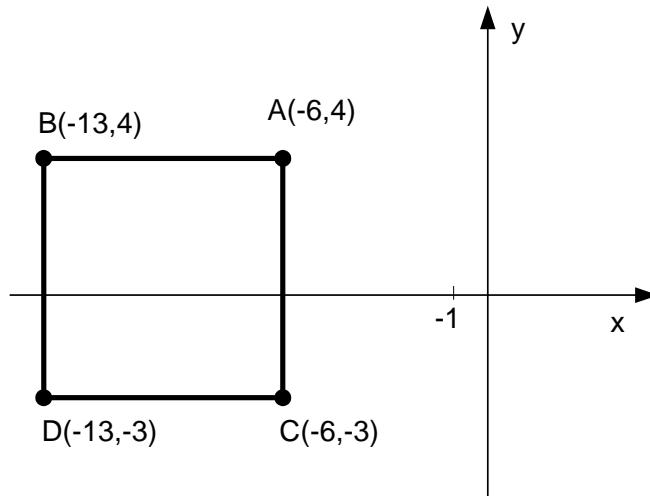


Show that point A(-6,4)B(-13,4)C(-6,-3)D(-13,-3) are the vertices of a square



The equation of the line passing through the points A and B is $y = 4$, so this line is parallel to the x-axis.

The equation of the line passing through the points C and D is $y = -3$, so this line is parallel to the x-axis.

The equation of the line passing through the points B and D is $x = -13$, so this line is parallel to the x-axis.

The equation of the line passing through the points A and C is $y = -6$, so this line is parallel to the x-axis.

So

1) the line AB is parallel to the line CD and the line BD is parallel to the line AC, hence ABDC is a parallelogram,

2) the line AB is perpendicular to the line BD, hence ABDC is a rectangle,

$$3) AB = |-13 - (-6)| = 7$$

$$BD = |-3 - 4| = 7$$

$$CD = |-13 - (-6)| = 7$$

$$AC = |-3 - 4| = 7, \text{ so } AB = BD = CD = AC, \text{ hence ABDC is a rhombus.}$$

ABCD is a square since it is a rhombus and a rectangle