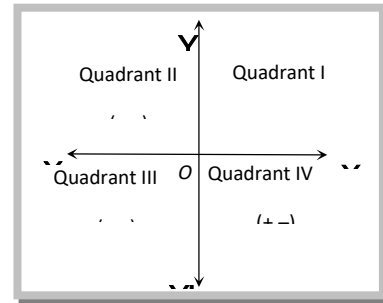# Introduction

Co-ordinates of a point are the real variables associated in an order to a point to describe its location in some space. Here the space is the two dimensional plane. The work of describing the position of a point in a plane by an ordered pair of real numbers can be done in different ways.

The two lines XOX' and YOY' divide the plane in four quadrants. XOY, YOX', $X'OY'$, $Y'OX$ are respectively called the first, the second, the third and the fourth quadrants. We assume the directions of OX, OY as positive while the directions of OX', OY' as negative.

Quadrant	*x*-coordinate	*y*-coordinate	point
First quadrant	+	+	(+,+)
Second quadrant	–	+	(–,+)
Third quadrant	–	–	(–,–)
Fourth quadrant	+	–	(+,–)