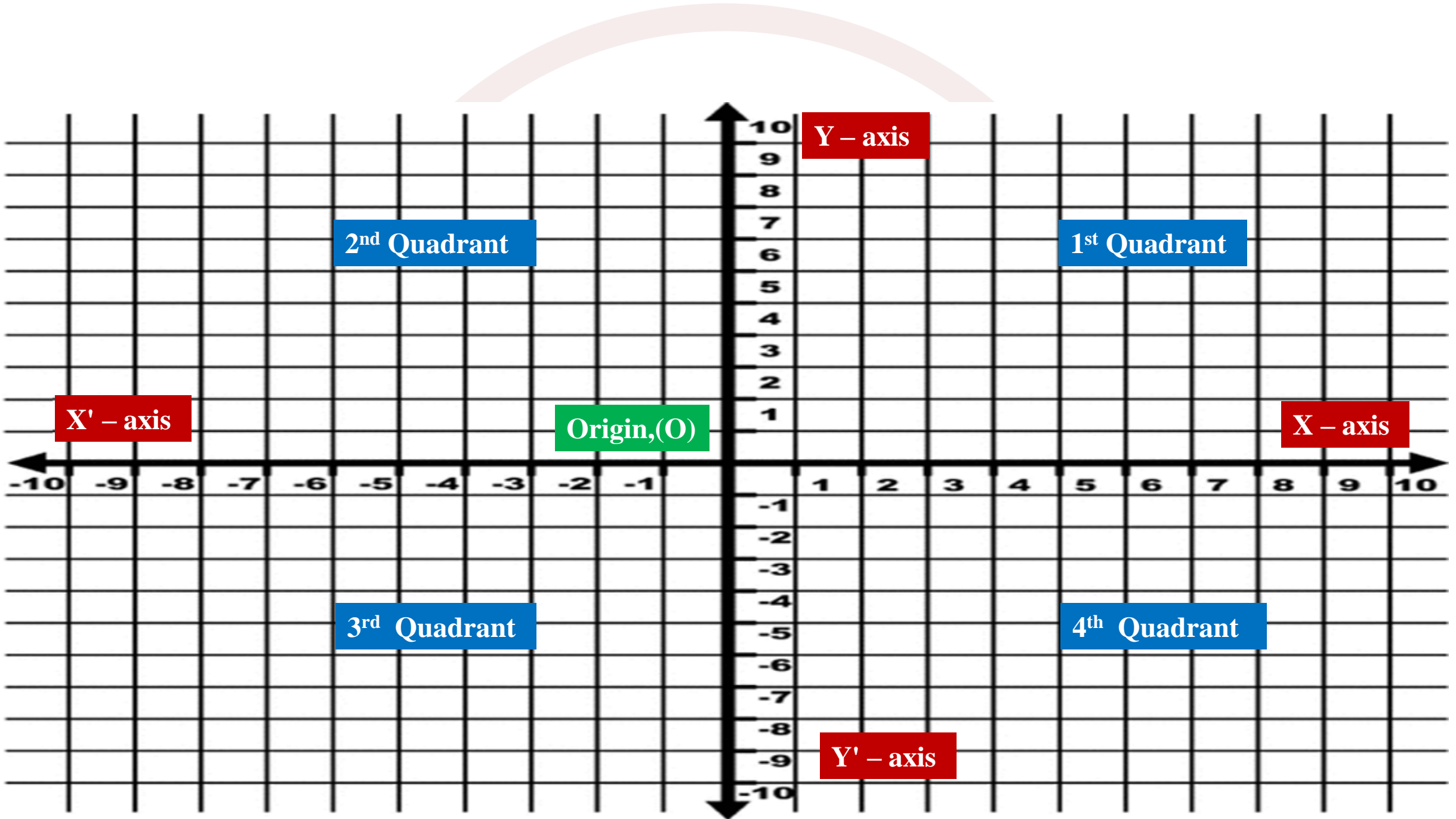
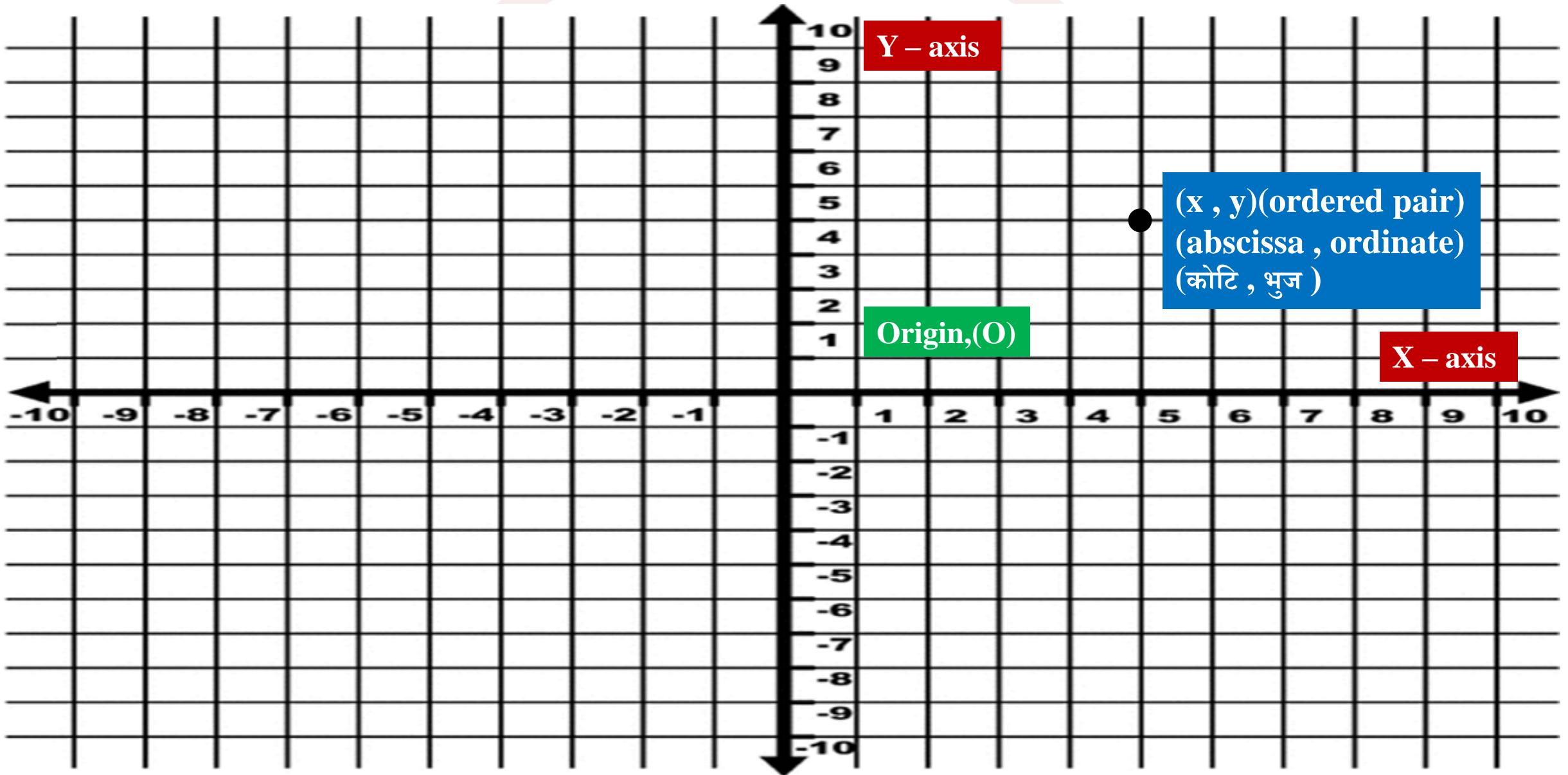


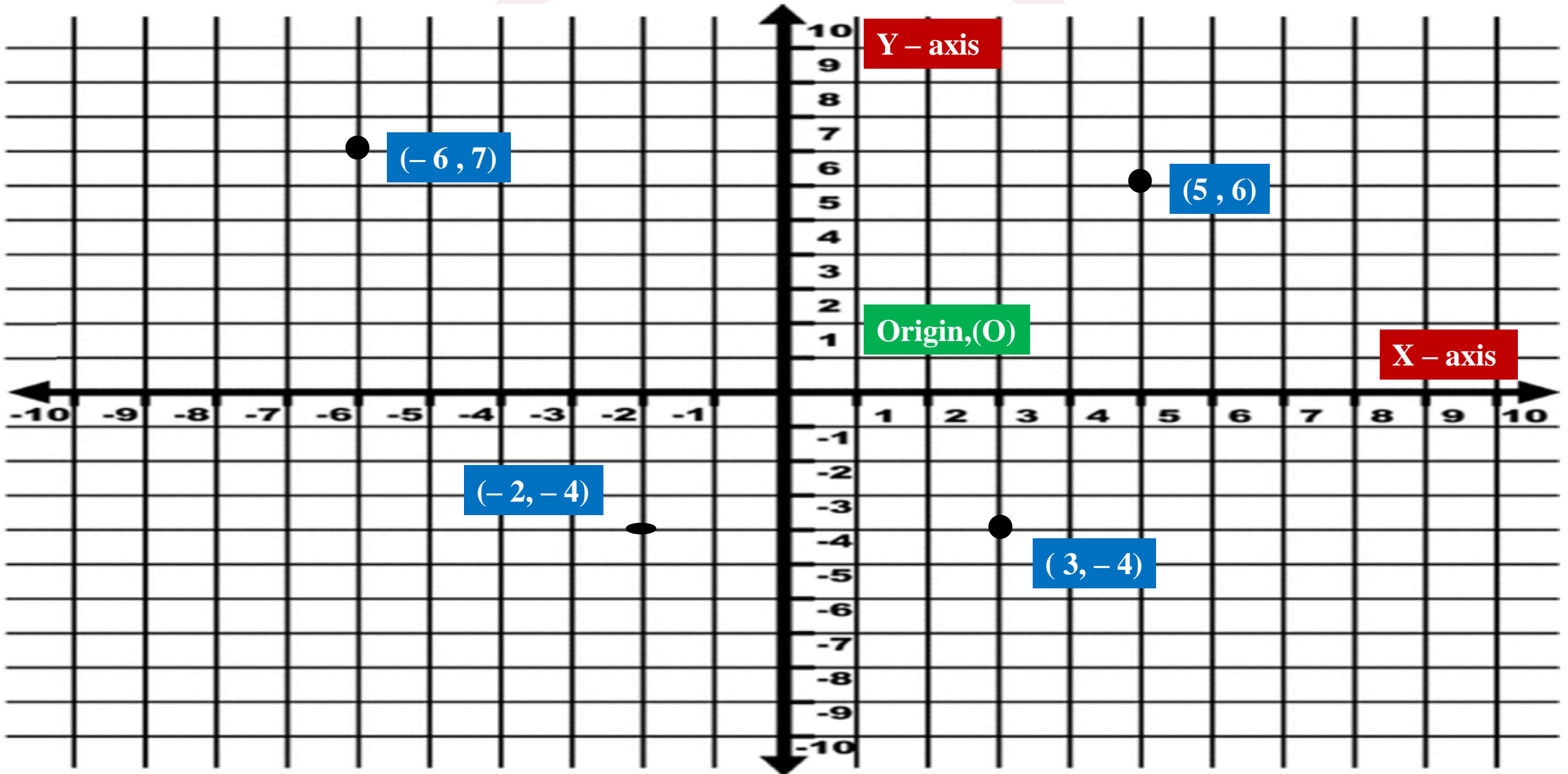
# CO-ORDINATE GEOMETRY



# Basic Concept



# Basic Concept



# SOME EXAMPLES

**EX:** What is the ordinate of point B (8 , - 5)?

बिंदु B (8, - 5) की कोटि क्या है?



# SOME EXAMPLES

**EX:** What is the abscissa of point C (9, – 6)?

बिंदु C (9, - 6) का भुज क्या है?



# SOME EXAMPLES

**EX: In which quadrant point A ( -5, -2) lies ?**

किस चतुर्थांश में बिंदु A (-5, -2) स्थापित है?



# SOME EXAMPLES

**EX: In which quadrant point D ( 5, -8) lies ?**

**किस चतुर्थांश में बिंदु D (5, -8) स्थापित है?**





# SOME FORMULAE

**The distance between two points A ( $x_1, y_1$ ) and B ( $x_2, y_2$ ) is :**

$$D = \sqrt{(x_1 - x_2)^2 + (y_1 - y_2)^2}$$



# SOME EXAMPLES

**EX: Find the distance point P ( - 4 , -9) and point Q (2 , 3) ?**

बिंदु P (- 4, -9) और बिंदु Q (2, 3) के बीच की दूरी ज्ञात कीजिये



# SOME EXAMPLES

**EX: Find the distance point B (2, 7) and point C (-5 , -1) ?**

बिंदु B (2,7) और बिंदु C (-5, -1) के बीच की दूरी ज्ञात कीजिये



# IMPORTANT POINTS

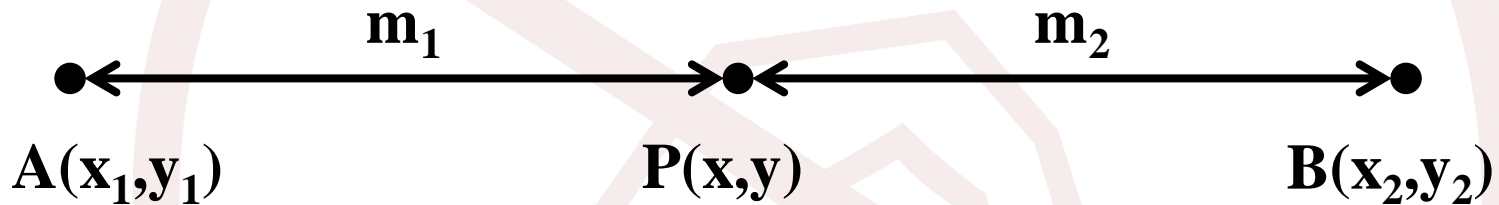
## Equation of a straight line

- **General Form :  $ax + by + c = 0$**
- **General Form :  $y = mx + c$**
- **Slope Intercept Form :  $(y - y_1) = m (x - x_1)$**
- **Two point Form :  $(y - y_1) = \frac{y_2 - y_1}{x_2 - x_1} (x - x_1)$**
- **Intercept form :  $\frac{x}{a} + \frac{y}{b} = 1$**
- **Line Parallel to the x-axis :  $y = b$**
- **Line Parallel to the y-axis :  $x = a$**

# IMPORTANT POINTS

## Sectional Formulae

### Sectional Formulae(Internally)

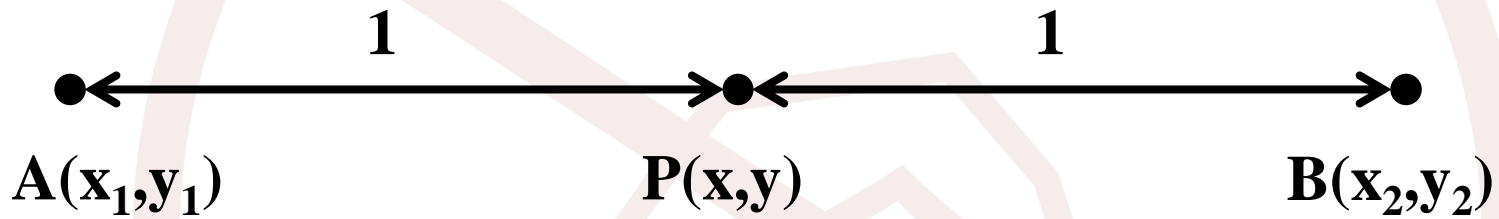


$$P(x,y) = \left[ \frac{m_1 x_2 + m_2 x_1}{m_1 + m_2}, \frac{m_1 y_2 + m_2 y_1}{m_1 + m_2} \right]$$

# IMPORTANT POINTS

## Sectional Formulae

### Sectional Formulae(Mid-point)

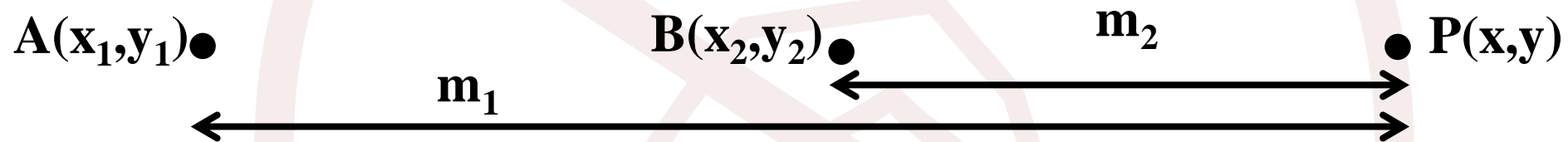


$$P(x,y) = \left[ \frac{x_1 + x_2}{2}, \frac{y_1 + y_2}{2} \right]$$

# IMPORTANT POINTS

## Sectional Formulae

### Sectional Formulae(Externally)



$$P(x, y) = \left[ \frac{m_1 x_2 - m_2 x_1}{m_1 - m_2}, \frac{m_1 y_2 - m_2 y_1}{m_1 - m_2} \right]$$