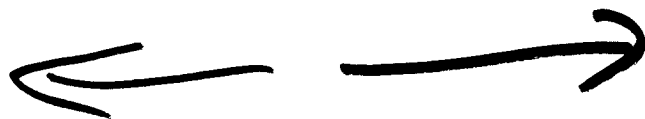


$$\vec{f} = \alpha \hat{x}$$

$$|\vec{f}| = \alpha = \text{magnitude}$$

$$\hat{x} = \text{direction}$$

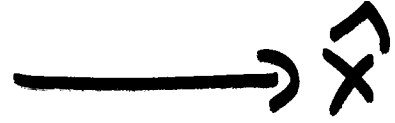
\hat{x} along X-axis

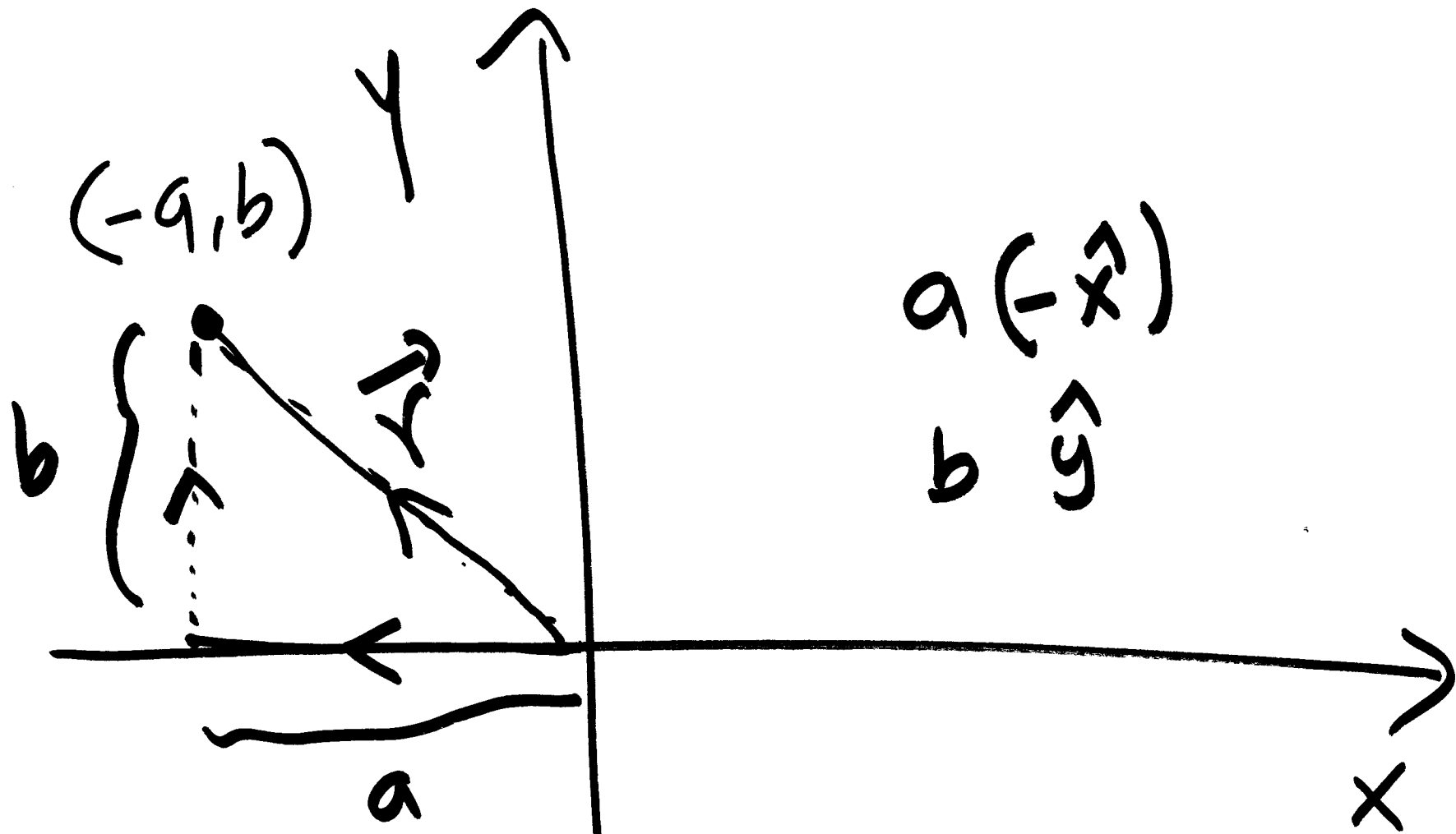


$-x$



decreasing direction of
x-axis

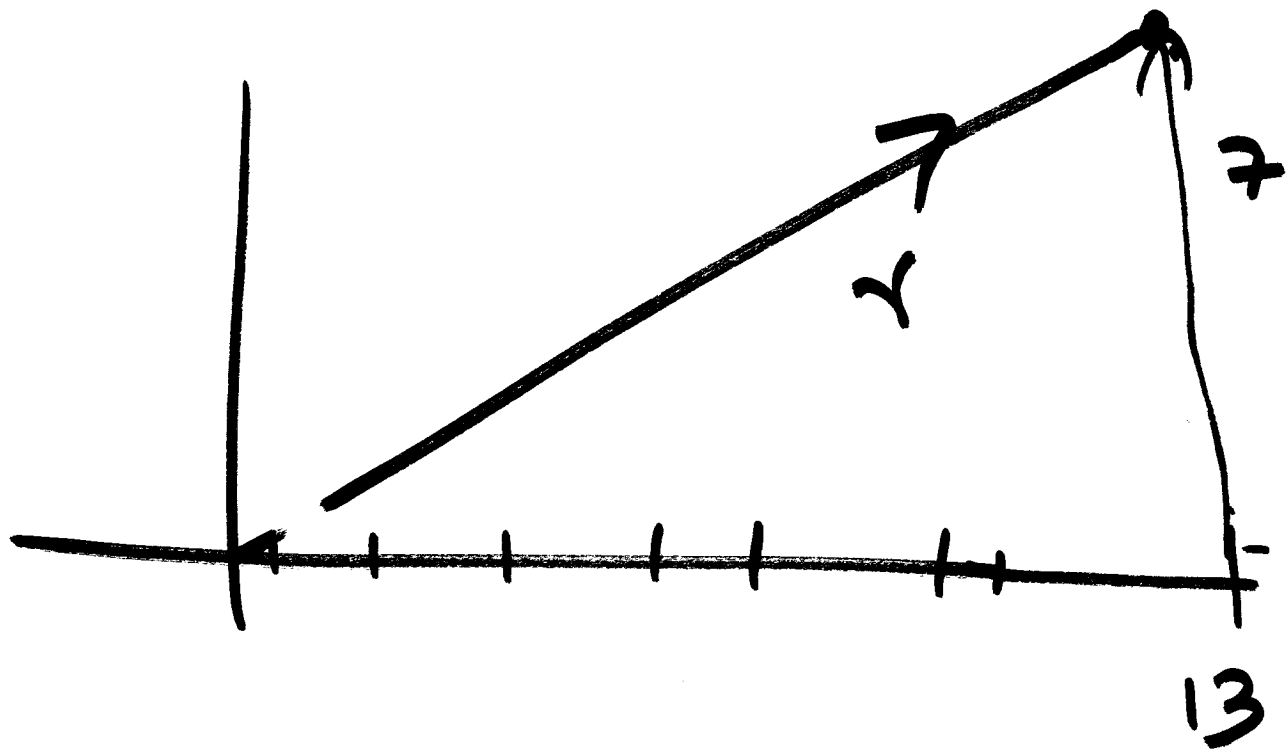




$$\vec{r} = -a\hat{x} + b\hat{y}$$

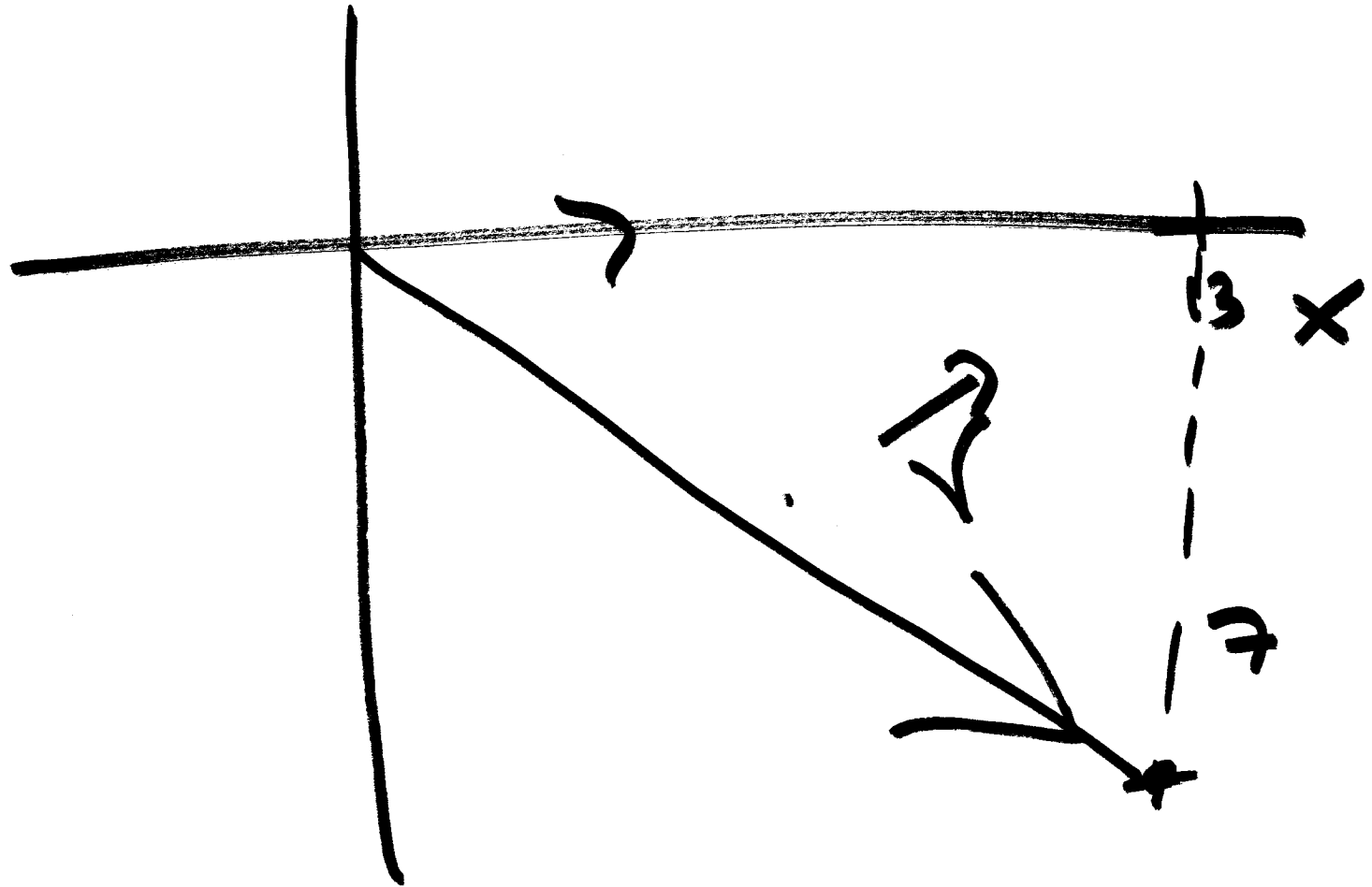
$(13, 7)$

$$\vec{r} = 13\hat{x} + 7\hat{y}$$



$(13, -7)$

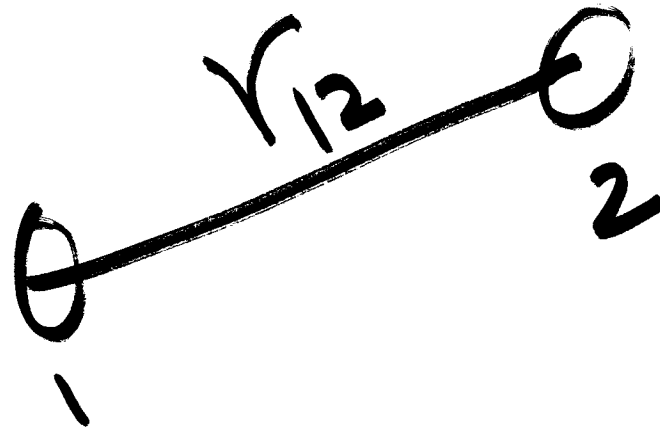
$$\vec{r} = 13\hat{x} - 7\hat{y}$$



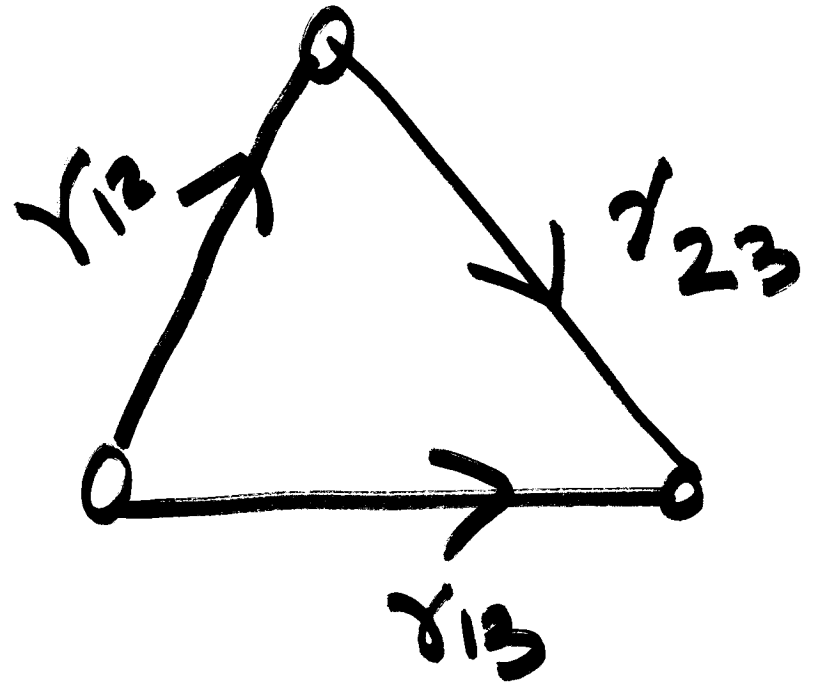
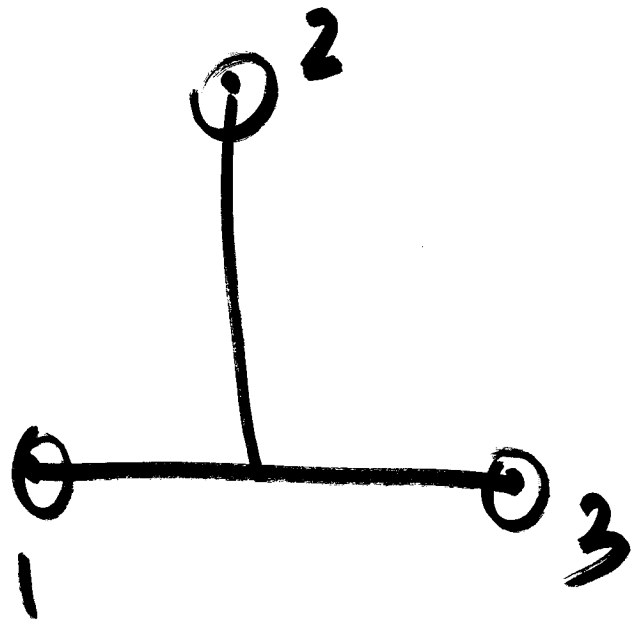
$$\vec{A} = (2, 3) \\ = \underline{2\vec{x} + 3\vec{y}}$$

$$\vec{B} = (3, 7) \\ = \underline{3\vec{x} + 7\vec{y}}$$

$$\vec{A} + \vec{B} = \underline{2\vec{x} + 3\vec{y}} + \underline{3\vec{x} + 7\vec{y}} \\ = 5\vec{x} + 10\vec{y}$$



$$\vec{T}_{12} = \frac{q_1 q_2}{K r_{12}^2}$$



$$\begin{aligned} r_{13} &= 10x \\ r_{12} &= 8y + 6x \\ r_{23} &= 4x - 8y \end{aligned}$$

Prof. P. Ranjith
Lec. No. 14
Date: 24/9/11

$$\vec{f}_2 = \vec{f}_{21} + \vec{f}_{23}$$

$$\vec{f}_{21} = ?$$

$$\vec{f}_{23} = ?$$