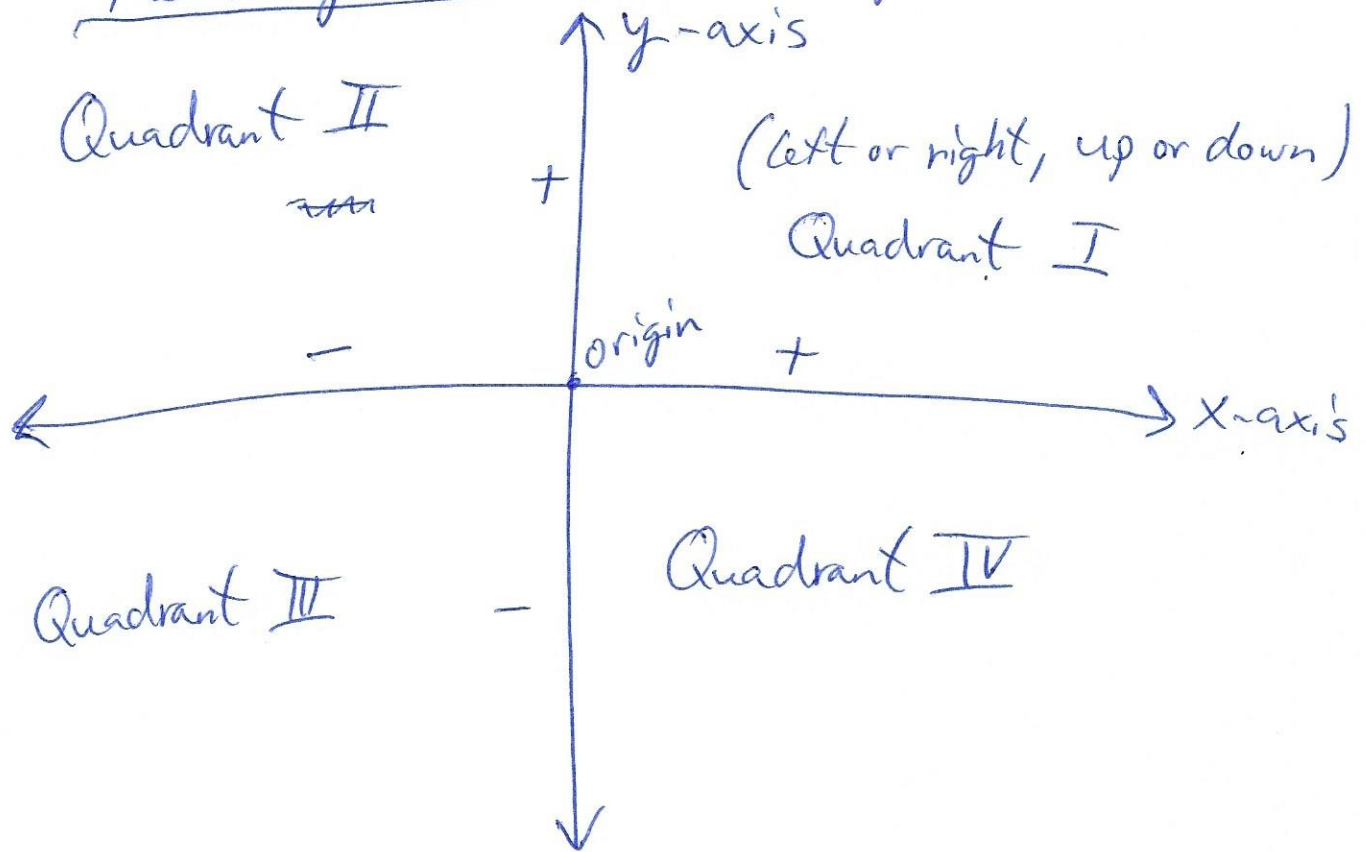
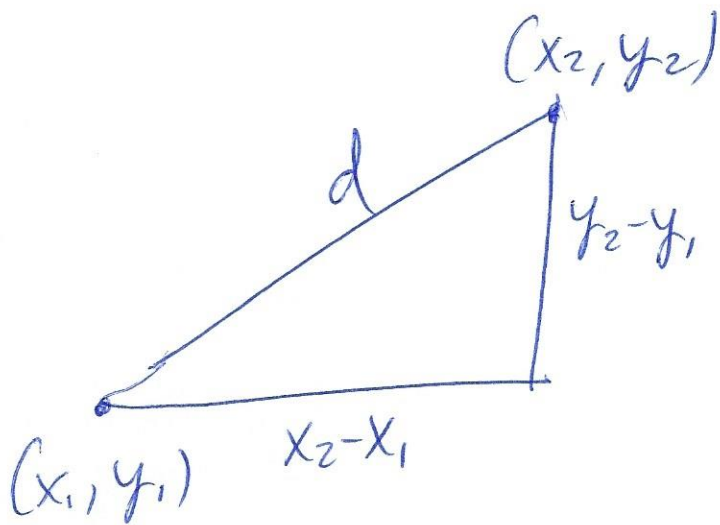


10/10/18

Rectangular Coordinate System



Pythagorean Theorem: $a^2 + b^2 = c^2$



$$(x_2 - x_1)^2 + (y_2 - y_1)^2 = d^2$$

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

Ex: Find distance between $(4, 5)$ and $(10, 13)$

$\begin{matrix} \uparrow & \uparrow \\ x_1 & y_1 \end{matrix}$

 $\begin{matrix} \uparrow & \uparrow \\ x_2 & y_2 \end{matrix}$

$$d = \sqrt{(10-4)^2 + (13-5)^2} = \sqrt{6^2 + 8^2} = \sqrt{36+64} = 10$$