Assignment 1

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Download all python codes from

https://github.com/KeshavRoy/Distance

and latex-tikz codes from

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1 Problem

(1.3) Find the distance between the following pairs of points:
(-3 -2) and (-6 7) the axes being inclined at 60 degree

2 Solution

The distance b/w two points (x1, y1) and (x2, y2) is given as :

$$\sqrt{(X1-X2)^2+(Y1-Y2)^2+2(X1-X2)(Y1-Y2)COS\Theta} \tag{2.0.1}$$

Given coordinates
(-3 -2) (-6 7) and $\theta = 60$

$$\sqrt{(-3-(-6))^2+(-2-7)^2+2(-3-6-(6))(-2-7)cos60} \tag{2.0.2}$$

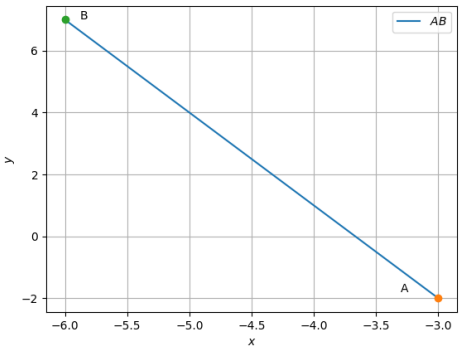

Fig. 0: line

$$\sqrt{3^2+9^2+2*3-9\frac{1}{2}} \tag{2.0.3}$$

$$\sqrt{9+81-27} \tag{2.0.4}$$

$$\sqrt{63} \tag{2.0.5}$$