Distance Equation

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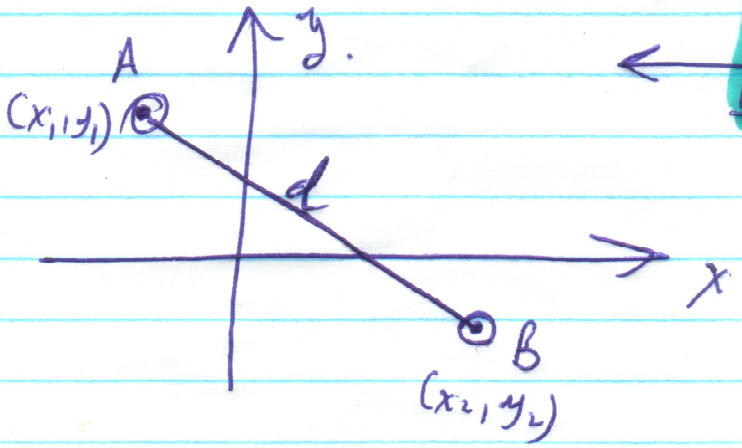
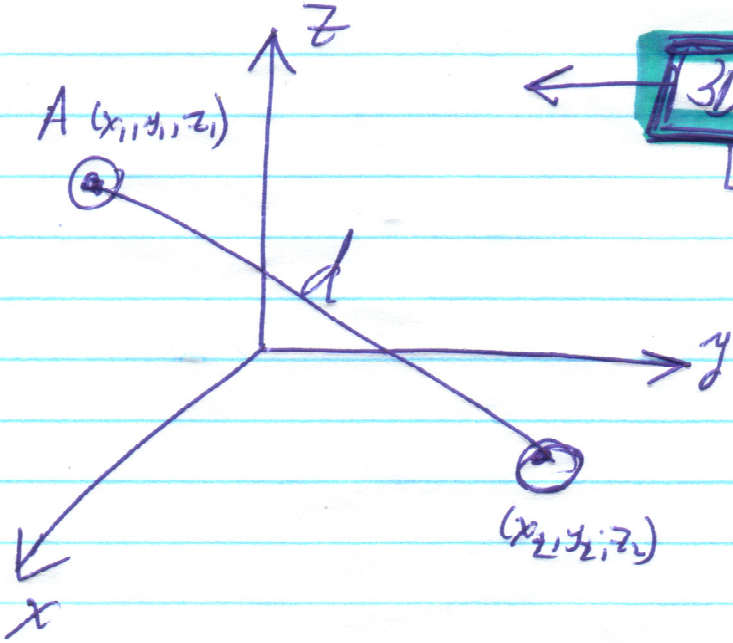
The equation between "2 points" in "Euclidean Plane"



2D

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



3D

$$d = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2 + (z_2 - z_1)^2}$$

EX#1 which point is $\left.\begin{matrix} A(3,2) \\ B(2,5) \end{matrix}\right\}$ is closer to point $C(1,5)$

1° $d_{AC} = \sqrt{(3-1)^2 + (2-5)^2} = \sqrt{4+9} = \sqrt{13} \simeq 3.61$

2° $d_{BC} = \sqrt{(2-1)^2 + (5-5)^2} = \sqrt{1+0} = 1$ ← smaller: "B" is closer !!!