

$$M_{AB} = \frac{1 - (-4)}{2 - 4} = -\frac{5}{2}$$

$$M_{\pm AB} = \frac{1}{2}$$

$$\begin{pmatrix} \frac{2+4}{2} \\ \frac{1+(-4)}{2} \end{pmatrix}$$

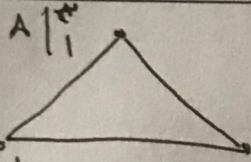
$$\begin{pmatrix} 3 \\ 1 \end{pmatrix}$$

$$\frac{x}{2} + b = y$$

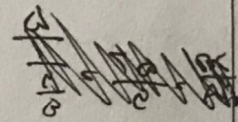
$$\frac{x}{2} + \frac{4}{2} = 1$$

$$\frac{x}{2} + \frac{4}{2} = y$$

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$$BC = \sqrt{(1-2)^2 + (2-1)^2} = \sqrt{2}$$



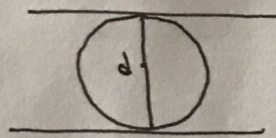
$$C(1,2) \rightarrow \frac{-x}{2} + \frac{y}{2} = 1$$

$$AB = \frac{|1-2-1+2|}{\sqrt{1^2+1^2}} = \frac{0}{\sqrt{2}} = 0$$

$$d = \frac{2}{\sqrt{2}} = \sqrt{2}$$

$$M_{BC} = \frac{1}{2}$$

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$$\frac{|C-C'|}{\sqrt{A^2+B^2}} = d \rightarrow \frac{|1-2|}{\sqrt{1^2+1^2}} = \frac{1}{\sqrt{2}} = \frac{\sqrt{2}}{2}$$

$$\frac{d}{r} = \frac{1}{\sqrt{2}} < 1$$

$$r_y - r_x = 5$$

$$r_y - r_x = 5$$

$$\sqrt{r^2} = \frac{5}{\sqrt{2}}$$

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$$M = \frac{\frac{1}{2} + \frac{1}{2}}{\frac{1}{2} + \frac{1}{2}}$$

$$M = \frac{1}{2}$$

$$M_{AB} = \frac{1}{2} \quad \begin{matrix} -a+b=y \\ -1+b=c \end{matrix} \quad \begin{matrix} -a+b=y \\ -1+b=c \end{matrix}$$

$$\sqrt{(c/a-1)^2 + (1/a-1)^2} = \frac{\sqrt{2}}{2}$$

$$\begin{cases} x+b=y \\ -1+b=c \end{cases} \quad \begin{matrix} x+b=y \\ -1+b=c \end{matrix}$$

$$\begin{cases} x+b=y \\ -x+b=c \end{cases} \quad \begin{matrix} x+b=y \\ -x+b=c \end{matrix} \quad \begin{matrix} x+b=y \\ -x+b=c \end{matrix}$$

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$$\frac{r-p_m}{d-m} = \frac{f-p_m}{m+1}$$

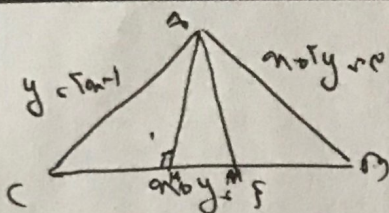
$$(m+1)(r-p_m) = (f-p_m)(d-m)$$

$$p_m - p_m = r - p_m = 5 - 1 = 4 \quad m = 1 \rightarrow d - m = 1 \quad p_m = 1$$

$$\frac{(d-m-1)(d-m)}{m+1} = \frac{(m+1)(d-m-1)}{m+1}$$

$$m = 1$$

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$$A \begin{cases} x+y=1 \\ x-y=1 \end{cases} \quad y=0 \quad A \begin{vmatrix} 1 \\ 1 \end{vmatrix}$$

$$AH = \frac{|1-1|}{\sqrt{1+1}} = \frac{0}{\sqrt{2}} = 0$$

$$B \begin{cases} x+y=1 \\ x-y=1 \end{cases} \quad y=1 \quad A \begin{vmatrix} 1 \\ 1 \end{vmatrix}$$

$$C \begin{cases} x+y=1 \\ x-y=1 \end{cases} \quad y=0 \quad A \begin{vmatrix} 1 \\ 1 \end{vmatrix}$$

$$AM = \sqrt{\left(\frac{1}{2}\right)^2 + \left(\frac{1}{2}\right)^2} = \frac{\sqrt{2}}{2}$$

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$$A \sin \theta + B \cos \theta + C = 0 \quad (A \cos \theta + B \sin \theta) + C$$

$$\frac{-A}{B} = \frac{-1}{1}$$

$$A \sin \theta + B \cos \theta + C = 0$$

$$\sin \theta = \frac{C}{A}$$

$$\cos \theta = \frac{C}{B}$$

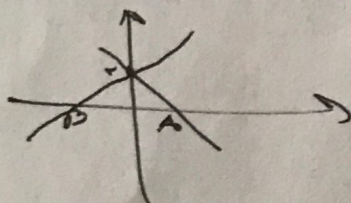
$$A = \frac{C}{\sin \theta} \quad B = \frac{C}{\cos \theta}$$

$$A \sin \theta + B \cos \theta + C = 0 \rightarrow A \frac{C}{\sin \theta} + B \frac{C}{\cos \theta} + C = 0$$

$$A \sin \theta + B \cos \theta + C = 0 \rightarrow \frac{C}{\sin \theta} + \frac{C}{\cos \theta} + C = 0$$

$$\sqrt{(1+1)^2 + (1+1)^2} = \sqrt{8} = 2\sqrt{2}$$

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$$y = (1-m)x + b \quad y = \frac{1}{m}x + b$$

$$\frac{1}{1-m} = \frac{1}{1} \quad (1-m) = 1$$

$$(1-m)(1-m) = 1-1 = 0$$

$$0 = (1-m)x + b$$

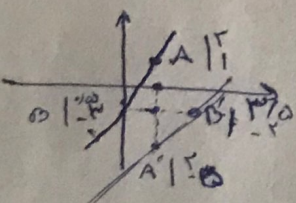
$$m = \frac{1}{1-m}$$

$$0 = \frac{1}{m}x + b$$

$$m = \frac{1}{m}$$

$$\frac{1}{1-m} = \frac{1}{1} \Rightarrow \frac{1}{1-m} = 1$$

$$\frac{m^2 - 1}{1-m} = \frac{m^2 - 1}{1-m} = \frac{(m-1)(m+1)}{1-m} = -(m+1)$$



$$A \cdot B \rightarrow \frac{-1 - (-1)}{1/2 - 1} = \frac{0}{-1/2} = 0$$

$$x+y=1$$

$$x-y=1$$

$$x+y=1$$

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$$\frac{1-b}{1-a} = 1$$

$$a-b = 1-a \Rightarrow b = 1$$

$$\frac{a+b}{1} = \frac{1+b}{1}$$

$$a+b = 1+b \Rightarrow a = 1$$

$$a+b=1$$

$$\frac{a+b}{1} = \frac{1+b}{1}$$

$$1-1=0$$

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