

البرهان الثاني - انهما نقطتان مختلفتان

1393/3/28

18 Jun 2014

الأربعاء

Wednesday

1435

شعبان

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جمهورية

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$$m = \frac{\Delta y}{\Delta x} = -\frac{1}{2} \quad y = ax + b \rightarrow y = -\frac{1}{2}x + b$$

$$2 = -\frac{1}{2}(-2) + b \Rightarrow b = 1 \quad y = -\frac{1}{2}x + 1$$

$$m = \frac{y}{x} = -\frac{1}{2}$$

$$y = ax + b \Rightarrow y = -\frac{1}{2}x + b \Rightarrow 2 = -\frac{1}{2}(-2) + b \Rightarrow b = 1$$

$$mx - \frac{1}{m} = -1 \Rightarrow x = 2 \quad \frac{1}{m} = -\frac{1}{2}$$

$$y = ax + b \Rightarrow y = \frac{1}{2}x + b \quad y = \frac{1}{2}x - 1$$

$$2 = \frac{1}{2}(2) + b \Rightarrow b = -1$$

$$y = ax + b \Rightarrow y = \sqrt{2}x + b \Rightarrow 2 = \sqrt{2}(\sqrt{2}) + b$$

$$b = -2 \quad y = ax + b \Rightarrow$$

$$y = -\frac{1}{2}x + b \Rightarrow 2 = -\frac{1}{2}(-2) + b \Rightarrow b = 1$$

$$L = \frac{|ax + by + c|}{\sqrt{a^2 + b^2}} \Rightarrow AB = \sqrt{\Delta x^2 + \Delta y^2} \Rightarrow$$

$$\sqrt{(2+1)^2 + (2-1)^2} = \sqrt{5} = 5$$

$$\frac{|2(2) + 2(2) - 3|}{\sqrt{2^2 + 2^2}} = \frac{1}{5} = \frac{1}{5}$$

$$\begin{cases} 2x + 2y - 1 = 0 \\ 2x + 2y - 3 = 0 \end{cases} \Rightarrow$$

$$ax + by + \frac{c+c'}{2} \Rightarrow 2x + 2y + \frac{-1-3}{2} = 0 \quad 2x + 2y - 2 = 0$$

$$d = \frac{|c - c'|}{\sqrt{a^2 + b^2}} = \frac{|-1 - 3|}{\sqrt{2^2 + 2^2}} = \frac{4}{\sqrt{8}} = \frac{2}{\sqrt{2}} = \sqrt{2}$$

$$\frac{|ax + by - c|}{\sqrt{a^2 + b^2}} = \frac{|a'x + b'y - c'|}{\sqrt{a'^2 + b'^2}} \Rightarrow \frac{|2x - 2y - 1|}{\sqrt{2^2 + (-2)^2}} = \frac{|2x + 2y - 3|}{\sqrt{2^2 + 2^2}} \Rightarrow$$

$$|2x - 2y - 1| = |2x + 2y - 3| \Rightarrow 2x - 2y - 1 = 2x + 2y - 3 \Rightarrow -4y = -2 \Rightarrow y = \frac{1}{2}$$

$$2x - 2y - 1 = -(2x + 2y - 3) \Rightarrow 2x - 2y - 1 = -2x - 2y + 3 \Rightarrow 4x = 4 \Rightarrow x = 1$$

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بجانبه

خرداد ۱۳۹۳/۳/۲۹
19 Jun 2014
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۱۴۳۵ شعبان ۲۱
الخميس

$$y + 1^0 - 1^0 = 0 \quad y - 1^0 - 0 = 0$$

$$m = -\frac{1^0}{1} = -1^0$$

$$m_2 = \frac{1^0}{1}$$

$$\tan \alpha = 1$$

$$\tan \alpha = \left| \frac{m - m_2}{1 + mm_2} \right| = \left| \frac{-1 - 1}{1 - 1} \right| = \left| \frac{-2}{0} \right| = 1$$

$$\alpha = \frac{x}{z} = 45^\circ$$

$$m \left| \frac{x_A + mB}{y_A + yB} \right| \Rightarrow \left| \frac{1^0 - 0}{1} \right| = \left| \frac{-1}{1} \right| = 1$$

$$AB = \sqrt{(1^0 + 0)^2 + (-1 - 0)^2} = \sqrt{1 + 1} = \sqrt{2} \quad (\text{الف})$$

$$S = \frac{1}{10^2} \begin{vmatrix} -1^0 & -2 & 3 \\ -1^0 & 3 & 1 \\ 1 & 1 & 1 \end{vmatrix} = \dots \quad G = \begin{vmatrix} x_1 + x_2 + x_3 \\ y_1 + y_2 + y_3 \\ 1 + 1 + 1 \end{vmatrix} \quad G = \begin{vmatrix} 1^0 - 2 - 1 \\ 3 \\ 1 + 1 + 1 \end{vmatrix}$$

$$\frac{1}{10^2} (-1^0 \cdot 3 \cdot 1 - 3 \cdot 2 \cdot 1 - 1 \cdot 1 \cdot 1) = \frac{1}{10^2} (-3 - 6 - 1) = \frac{-10}{10^2} = -\frac{1}{10} \quad G = (-1^0, -3)$$

درگشت دکتر علی شریعتی (۱۳۵۶ هـ.ش)

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خرداد ۱۳۹۳
Friday
20 Jun 2014
۱۴۳۵ شعبان ۲۲
الجمعة

$$x = \frac{2y+1}{4y-1^0} \Rightarrow y = \frac{-x-1}{2-x} \quad 1^0 \quad -y = \frac{x+1}{4x-1^0} \Rightarrow y = \frac{x+1}{4x-1^0}$$

$$1 - x = \frac{2y+1}{4y-1^0} \Rightarrow y = \frac{x-1}{2-x} \quad y = \frac{-x+1}{4x-1^0} \Rightarrow y = \frac{-x+1}{4x-1^0}$$

$$\begin{cases} x' = x - 1^0 \\ y' = y + 1^0 \end{cases} \Rightarrow \begin{cases} x = x' + 1^0 \\ y = y' - 1^0 \end{cases} \Rightarrow y - 1^0 = \frac{x' + 1^0}{x' - 1^0} \Rightarrow y = \frac{x' + 1^0}{x' - 1^0} + 1^0 = \frac{x' + 1^0 + x' - 1^0}{x' - 1^0} = \frac{2x'}{x' - 1^0}$$

$$\begin{cases} x' = x - 1^0 \\ y' = y - 1^0 \end{cases} \Rightarrow \begin{cases} x = x' + 1^0 \\ y = y' + 1^0 \end{cases} \Rightarrow y + 1^0 = \frac{x' + 1^0}{x' - 1^0} \Rightarrow y = \frac{x' + 1^0}{x' - 1^0} - 1^0 = \frac{x' + 1^0 - x' + 1^0}{x' - 1^0} = \frac{2}{x' - 1^0}$$

$$-x = \frac{(4x)(1) - (1^0)(1)}{(1^0)(-0) - (4x)(1)} = \frac{-4}{-4} = 1 \quad \begin{cases} x + y = 1 \\ x - y = 1 \end{cases} \Rightarrow \begin{cases} x + y = 1 \\ -x + 1^0 = 1 \end{cases} \Rightarrow \begin{cases} x + y = 1 \\ -x = 0 \end{cases} \Rightarrow \begin{cases} x = 0 \\ y = 1 \end{cases}$$

$$y = \frac{(1^0)(1) - (1^0)(1)}{(1^0)(-0) - (1^0)(1)} = \frac{-1}{-1} = 1$$