

$$AM = \sqrt{(a-1)^2 + (4-9)^2} = \sqrt{19+25} = \sqrt{44} = 2\sqrt{11}$$

$$AB = y+x=5 / AC = 4y-3x=17 / BC = 4y-7x=-19 \quad \text{---}$$

$$A = AB \cap AC = \left(\frac{11}{5}, \frac{34}{5}\right), B = AB \cap BC = \left(\frac{4}{5}, \frac{1}{5}\right)$$

$$C = AC \cap BC = (a, 1)$$

↓
BM

معادله خط AC به شکل استاندارد
↓
 $ax+by+c=0$
 $-3x+4y-17=0$

$$\frac{|ax_0+by_0+c|}{\sqrt{a^2+b^2}} \rightarrow \frac{|-3 \times \frac{11}{5} + 4 \times \frac{1}{5} - 17|}{5} = \frac{44}{5}$$

$$a=-3, b=4$$

چون مربع می باشد است

$$S = -(-\frac{3}{4}) = \frac{3}{4}$$

$$d = \frac{3}{4} \sqrt{5} = \frac{3\sqrt{5}}{4}$$

باران حاتم

↓ - 1

$$\frac{m-k}{F-(-2)} = \frac{m-k}{9} = -\frac{1}{F} \rightarrow m-k = -k$$

نسبت A و B

AB (مساحت)

$$|AB| = \sqrt{(F-(-2))^2 + (m-k)^2} = \sqrt{4^2 + (-3)^2} = \sqrt{16+9}$$

$$\sqrt{25} = 5$$

$$\text{مساحت} = 3\sqrt{5}$$

$$S = (3\sqrt{5})^2 = 45$$

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$$D = D-C = (-1-x, y+3-y) = (-1-2x, 3)$$

$$(-1-2x, 3) = (-4, 3) \rightarrow -1-2x = -4 \rightarrow x = \frac{3}{2}$$

BC و AB (مساحت) →

$$(3, -3) \times (x-3, y-1) = 0$$

$$x = \frac{3}{2} \quad C\left(\frac{3}{2}, -1\right) \Rightarrow y = -1$$

$$\downarrow |AB| = 5$$

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

$$r\left(5 + \frac{5}{2}\right) = r \times \frac{15}{2} = 15$$

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$$y = -\frac{rm}{m^2-1}x + \frac{r}{m^2-1} \rightarrow \frac{rm}{m^2-1}$$

$$\tan 45^\circ \rightarrow \sqrt{r}$$

$$\frac{-rm}{m^2-1} = \sqrt{r} \rightarrow \sqrt{r}m^2 + rm - \sqrt{r} = 0$$

$$\Delta = r + 12 = 19 \quad m = \frac{-r \pm \sqrt{r}}{2\sqrt{r}}$$

$$m_1 = \frac{1}{\sqrt{r}} \quad m_2 = -\sqrt{r}$$

$$m_1 - m_2 = \frac{1}{\sqrt{r}} - (-\sqrt{r})$$

$$\downarrow \frac{1}{\sqrt{r}} = \frac{\sqrt{r}}{r}$$