

$$A(-2, k) \quad \frac{5}{2} = \frac{m-k}{k+2} = -\frac{1}{2} \Rightarrow m-k = -3$$

$$B(4, m) \quad S: AB^2 = (4-(-2))^2 + (m-k)^2 = 36+9 = 45$$

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$$x-1 \leq 3-1-x \rightarrow x \leq 3 \Rightarrow x \leq \frac{3}{2} \quad m_{AB} = -\frac{3}{2} \Rightarrow m_{BC} = \frac{2}{3}$$

$$x \leq \frac{3}{2} \rightarrow 1 - \left(\frac{3}{2} \times \frac{2}{3}\right) = 1-1 = 0 \Rightarrow C\left(\frac{3}{2}, 0\right) \quad B\left(\frac{4}{2}, \frac{2}{2}\right) \quad A\left(-\frac{1}{2}, \frac{3}{2}\right) \quad B\left|\frac{3}{2}\right|$$

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$$AB \leq \sqrt{14+9} \leq 5 \quad BC \leq \sqrt{\frac{9}{4}+1} = \sqrt{\frac{13}{4}} \leq \frac{4}{2}$$

$$P \leq 2\left(2 + \frac{4}{2}\right) = 2 \times 4 = 8$$

$$m = -\frac{2m}{m^2-1} \quad m \leq \tan 45^\circ \leq \sqrt{3} \Rightarrow \frac{-2m}{m^2-1} \leq \sqrt{3} \rightarrow \sqrt{3}m^2 + 2m - \sqrt{3} \leq 0$$

$$\Delta \leq 14 > 0 \quad |\alpha - \beta| = \frac{|\Delta|}{|2\alpha|} = \frac{\sqrt{14}}{\sqrt{3}} = \frac{2}{\sqrt{3}} = \frac{2\sqrt{3}}{3}$$

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$$a \leq 4 + 2(\sqrt{3})(\sqrt{3}) = 4+12 = 16$$

$$m_{BC} \leq \frac{11-3}{4-3} = 8 \quad BC: y \leq 2x-b \rightarrow 8 \leq 4-b \Rightarrow b \leq 4$$

$$y \leq 2x-3 \Rightarrow y-2x+3 \leq 0$$

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$$AH = \frac{|(2)(1) - (4)(1) - 3|}{\sqrt{2^2+1^2}} = \frac{10}{\sqrt{5}} = \frac{10\sqrt{5}}{5} = 2\sqrt{5}$$

$$AB: 2y+3x \leq 14 \quad BC: 2y-3x \leq -14$$

$$-5x+14 \leq 3x-14 \rightarrow 11x \leq 28 \Rightarrow x \leq \frac{28}{11} \quad y \leq 1 \quad B(3, 1)$$

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$$AC: 5y-3x-14 \leq 0$$

$$BH \Rightarrow \frac{|5(1) - 3(3) - 14|}{\sqrt{5^2+3^2}} = \frac{22}{\sqrt{34}} \leq 4, 4$$

$$m = \frac{0 - (-4)}{\frac{r}{\sqrt{2}} - 0} = \frac{4}{\frac{r}{\sqrt{2}}} = -1 \quad y = -1x + 8$$

$$\begin{cases} x \\ y = 8 \end{cases} \quad y = -1x - 4 \xrightarrow{y=8} 8 = -1x - 4 \rightarrow 9x = -4 \rightarrow x = -\frac{4}{9}$$

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$$b = a\sqrt{2} = \frac{4}{9} \times \sqrt{2} = \frac{4\sqrt{2}}{9}$$

$$m = \frac{a}{1} = a \quad m = -\frac{1}{a} = \frac{1}{a} \quad a = \frac{1}{a} \rightarrow a^2 = 1 \Rightarrow a = \pm 1$$

$$\text{if } a = 1 \rightarrow \begin{cases} y = x = 1 \\ y = x = 0 \end{cases} \quad A(1, r) \checkmark \rightarrow a = \frac{|1-0|}{\sqrt{r}} = \frac{1}{\sqrt{r}} = \frac{\sqrt{r}}{r}$$

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$$\text{if } a = -1 \rightarrow \begin{cases} y = x = 1 \\ y = x = r \end{cases} \quad A(1, r) \times \quad b^2 + a^2 = c^2 \rightarrow b^2 + \frac{1}{r} = a^2 \rightarrow b^2 = \frac{r^2}{r} \rightarrow b = \frac{r}{\sqrt{r}} \quad S = \frac{r}{\sqrt{r}} \times \frac{\sqrt{r}}{r} = \frac{r}{r} = 1, \omega$$

$$AB = \frac{|1-0-1|}{\sqrt{1+1}} = \frac{2}{\sqrt{2}} \quad \tan C = \frac{1}{\sqrt{10}}$$

$$\tan C = \frac{AB}{BC} = \frac{1}{\sqrt{10}} \rightarrow BC = \frac{1}{\frac{1}{\sqrt{10}}} = \sqrt{10} \rightarrow S = \frac{1}{2} \times \frac{r}{\sqrt{10}} \times \frac{1}{\sqrt{10}} = \frac{r}{20}$$

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$$S = 1, \omega$$

$$m = \frac{a-b}{\frac{1}{r} - \frac{1}{r}} = \sqrt{r} \Rightarrow a-b = \frac{\sqrt{r}}{2}$$

$$AB = \sqrt{(a-b)^2 + \left(\frac{1}{r} - \frac{1}{r}\right)^2} = \sqrt{\left(\frac{\sqrt{r}}{2}\right)^2 + \left(\frac{1}{r}\right)^2} = \sqrt{\frac{r}{4} + \frac{1}{r^2}} = \frac{r}{2} = \frac{1}{r}$$

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$$b = \sqrt{r} a = \sqrt{r} \times \frac{1}{r} = \frac{\sqrt{r}}{r}$$

$$r = \sqrt{9 + 16} = 5 \quad m = \frac{r}{-r} = -\frac{r}{r} \rightarrow m = -\frac{r}{r} \rightarrow y + r = -\frac{r}{r}(x+r)$$

$$\rightarrow y = -\frac{r}{r}x + \frac{9}{r} - r \Rightarrow y = -\frac{r}{r}x - \frac{r}{r} \quad y = \frac{r}{r}x + b$$

$$\rightarrow \frac{b}{\sqrt{1+\frac{r^2}{r^2}}} = d \Rightarrow b = \frac{d}{\sqrt{2}} \times \sqrt{2} = \frac{r}{r} \quad y = \frac{r}{r}x + \frac{r}{r}$$

$$-Vx - V \leq V$$

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$$\frac{r}{r}x - \frac{r}{r} \leq \frac{r}{r}x + \frac{r}{r} \rightarrow \frac{9+16}{1r}x \leq \frac{100+16}{1r} \rightarrow \frac{r}{r}x \leq -\frac{16}{1r} \Rightarrow x \leq -\frac{16}{r}, y = -1$$