

$B(2, 1)$
 $A(1, -4)$
 $(1, 1)$
 $\rightarrow m = \frac{1+4}{1-2} = \frac{5}{-1} = -5$

$\frac{1-4}{1-2} = 1$

$\frac{1+4}{1-2} = 5$

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$y = \frac{1}{5}x + \frac{6}{5}$
 $\rightarrow y = +\frac{1}{5}x + b \xrightarrow{(1, 1)} y = \frac{1}{5}x + \frac{6}{5}$

$C(-1, 4)$
 $B(-1, 5)$
 $A(1, 1)$
 $BC = \sqrt{(-1+1)^2 + (4-5)^2} = \sqrt{0+1} = 1$

$a_{BC} = -\frac{5}{1}$

$(k+m)\frac{1}{5} = 1 - y \Rightarrow \frac{1}{5} - \frac{k}{5}m = 1 - y$

$\frac{|ax+by+c|}{\sqrt{a^2+b^2}} = \frac{|-1-5+12|}{\sqrt{1+25}} = \frac{6}{\sqrt{26}} = \frac{3}{\sqrt{13}}$
 $\Rightarrow -x - 5y + 12 = 0 \Rightarrow -x - 5y = -12$
 $\Rightarrow BC - AH = 1 - 12 = -11$

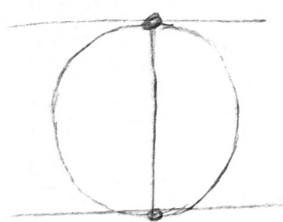
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$C(-1, -2)$
 $M(x, y) \Rightarrow \frac{x+1}{1} = \frac{y-2}{-1} \Rightarrow y = -x-1$

$a_{AB} = \frac{1-1}{1-1} = \frac{0}{0}$
 $x-1 = y \Rightarrow x = y+1$

$x+1 = x+a \Rightarrow a = 1$
 $\frac{1-2}{1-1} = \frac{y-2}{-1} \Rightarrow y = -1$

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$ky - ax = 1 \Rightarrow \frac{k}{a} = \frac{1}{-1} \Rightarrow a = -k$

$ky - ax = 1$

$ky - ax = 1 \Rightarrow ky - ax = 1$

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

$\Rightarrow r = \frac{1\sqrt{2}}{1} \Rightarrow S = \left(\frac{1\sqrt{2}}{1}\right)^2 \times \pi = 2\pi$

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$(m+1)x + (n-1)y - 1 = 0 \Rightarrow a = \frac{m-1}{m-1}$

$(m+1)x - (m-1)y + 1 = 0 \Rightarrow a' = \frac{m+1}{m-1}$

$\Rightarrow a = -\frac{1}{1} \Rightarrow \frac{m-1}{m-1} = \frac{-1}{1} \Rightarrow m-1 = -1 \Rightarrow m = 0$
 $\omega m^2 - 13m + 11 = 0 \Rightarrow m = 1, 11$

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$$\begin{cases} AB: x+ry=r \\ AC: y=rm-1 \\ BC: x+y=\varepsilon \end{cases}$$

$$AH = \frac{|-r+\varepsilon|}{\sqrt{r^2+1}} = \sqrt{r}$$

Altitudes $\Rightarrow -\frac{x}{r} + \frac{y}{r} = rx-1$

$-x + y = rm-1 \Rightarrow \boxed{x=1, y=1}$

BC line $\Rightarrow -\frac{x}{r} + \frac{y}{r} = -x+\varepsilon$

$\boxed{x=2, y=-1}$

(Check) $rm-1 = -x+\varepsilon$

$AM = \sqrt{(\frac{r}{r})^2 + (-\frac{1}{r})^2} = \frac{\sqrt{r^2+1}}{r}$ $\frac{AM}{AH} = \frac{a}{r}$ $(-\frac{a}{r}, \frac{y}{r})$

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$$y = -\frac{1}{r}x + a \Rightarrow y = -a$$

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Distance = $\frac{|0+0+a|}{\sqrt{\frac{a}{\varepsilon}}} = \sqrt{r}$ $\Rightarrow |a| = \frac{\sqrt{a}}{\sqrt{\varepsilon}} \times \sqrt{a} = a \sqrt{\frac{a}{\varepsilon}}$

$\Rightarrow y = \frac{a}{r}x + a \rightarrow \boxed{(0,1)}$ $\sqrt{(a-1)^2 + (r-a)^2}$

$$y+mx = x+r \Rightarrow y = -mx+x+r$$

$$my - \{x = rm \Rightarrow y = \frac{rm+x}{m}$$

$C = r$

$$\frac{r}{m}(x) = (m+1)x$$

$$A+B = \frac{r+mr-m}{rm-r}$$

$S = \frac{1}{r} \times \frac{mr-m+1}{rm-r} = \frac{a}{r} \Rightarrow rm^2-rm+1 = 1 \cdot m - 1$

$rm^2-rm+1A = 0 \Rightarrow (m-r)^2$

$\boxed{m=r}$

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$d \Rightarrow y = rm-r \quad (r_0-r)$

$r_1 = x_1' + a$ $\frac{a}{r_1} = -r$

$\Rightarrow x_1' = r$

$r = \frac{y_{d'}-r}{-1} \Rightarrow y_{d'} = -1$

$y = rx + b \quad \frac{r(-1)}{r} = -1 = 1+b \Rightarrow \boxed{y = rx - 1}$

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$A(1,r)$

$y = x+a$

$x+1 = 1 \Rightarrow x=1$

$y' = -x+b \xrightarrow{1, r} r = -1+b$

$y = -x+r$

$x+a = y \Rightarrow -rm-r = 0$

$\boxed{x=-1, y=r}$

$\frac{1+x'}{r} = -1 \Rightarrow \boxed{x'=-r}$

$\frac{r+y'}{r} = 2 \Rightarrow \boxed{y'=r}$

$rb-a = 1r+r = 1a$

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