

$$\left. \begin{aligned} AB \rightarrow m = \sqrt{1} \rightarrow m = 1 \\ \rightarrow \frac{AB}{\sqrt{1}} = 1 \end{aligned} \right\} \Rightarrow \frac{1}{\sqrt{1}} = 1$$

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$$\left. \begin{aligned} BC = \sqrt{1+9} = \sqrt{10} \\ AH \rightarrow \frac{10}{\sqrt{10}} = \sqrt{10} \end{aligned} \right\} BC - AH = 0$$

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$$\left. \begin{aligned} f(x) - x - y = 0 \\ y - x - \sqrt{1} = 0 \end{aligned} \right\} \frac{f(x)}{f'(x)} \rightarrow x = 1 \rightarrow x = 1$$

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$$\left. \begin{aligned} CH \rightarrow y - x + 1 = 0 \\ AB \rightarrow y - x - 1 = 0 \end{aligned} \right\} H: \left(\frac{y}{2}, \frac{x}{2} \right)$$

$$m = \frac{AB}{\sqrt{1}} \rightarrow (1, 1) \rightarrow m_H = \sqrt{\frac{1}{2}} = \frac{1}{\sqrt{2}}$$

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$$\frac{(y_{m-1})(n+1)}{-y+m} = 1 \rightarrow y_{m-1} = y_m + 1$$

$$\downarrow$$

$$y < 1 \quad m \in \mathbb{Z}$$

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$$\begin{aligned}
 C: & \rightarrow r_x - 1 = \frac{r}{r} \rightarrow x = \frac{d}{r}, y = \frac{r}{r} \\
 A: & r_x - 1 = \frac{x+r}{r} \rightarrow x = 1, y = 1 \\
 B: & -x+r = -r_x+1 \rightarrow x = 0, y = -1 \\
 A \cap B \rightarrow x+r-y=0 \rightarrow y=x \rightarrow H: x=r-x \rightarrow x=1, y=1 \quad AH = \sqrt{r}
 \end{aligned}
 \left. \begin{aligned}
 & m = \frac{BC}{r} = \left(\frac{1}{r}, \frac{r}{r} \right) \\
 & \rightarrow AM = \frac{d\sqrt{r}}{r} \\
 & \left(\frac{d}{r} \right)
 \end{aligned} \right\}$$

$$\begin{aligned}
 a x + b y - c = 0 \quad \frac{m = -1}{r} & \rightarrow \frac{c}{\sqrt{\frac{d}{r}}} = \sqrt{r_0} \rightarrow C = \pm d \rightarrow A: (0, \pm d) \\
 \rightarrow AB &= \sqrt{(\pm d)^2 + (1-0)^2} = \sqrt{1+d^2} = d\sqrt{d}
 \end{aligned}$$

$$\begin{aligned}
 \left\{ \begin{aligned} (1-m)x - y + r &= 0 \\ x - m y + r m &= 0 \end{aligned} \right\} & y = r \rightarrow x = 0 \rightarrow (0, r) \\
 \rightarrow h &= r \\
 \rightarrow BC &= \left| \frac{m^2 - m + r}{r - r m} \right| \\
 \rightarrow \left| \frac{m^2 - m + r}{r m - r} \right| &= \frac{d}{r} \rightarrow m^2 - m + r = d m - d \rightarrow m = r
 \end{aligned}$$

$$\begin{aligned}
 \frac{x' + r}{r} = 1 & \rightarrow x = r - x' \\
 \frac{y' + r}{r} = -1 & \rightarrow y = -r - y' \\
 \left. \begin{aligned} & y = r - x \\ & -r - y = 1 - r - x - r \end{aligned} \right\} & \rightarrow y' = r - x'
 \end{aligned}$$

$$\begin{aligned}
 \rightarrow m = -1 & \rightarrow A(1, r) \rightarrow y - r = -(x - 1) \\
 \rightarrow y &= -x + r \\
 -x + r &= x + d \rightarrow x = -1 \rightarrow y = \frac{r}{2} \\
 \rightarrow \frac{1+x}{r} &= -1 \rightarrow x = -r \\
 \frac{r+y}{r} &= \frac{r}{2} \rightarrow y = \frac{r}{2}
 \end{aligned}$$