

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

$$k = 1 + b \Rightarrow b = k - 1$$

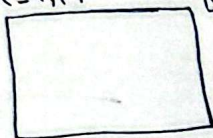
$$m = -r + b \Rightarrow b = m + r$$

$$\Rightarrow m + r = k - 1 \Rightarrow \underbrace{k - m}_{\text{تفاضلها}} = r, \quad \underbrace{-r - k}_{\text{تفاضلها}} = -4 \Rightarrow \text{المساواة} = r = \sqrt{34 + 9} = \sqrt{43}$$

$$\text{مساحة مربع} = r^2 = (\sqrt{43})^2 = \boxed{43}$$

-1

$$A(-1, 1) \quad B(3, 1)$$



$$u_A + u_C = u_B + u_D$$

$$x + u = 3 \quad x - u =$$

$$\Rightarrow 2u = 3 \Rightarrow \boxed{u = \frac{3}{2}}$$

$$C(x, y) \quad \left(\frac{r}{r}, -1\right) \quad \left(\frac{r}{r}, y\right)$$

$$y_A + y_C = y_B + y_D \Rightarrow 1 + y = 1 + y + r \Rightarrow \varepsilon \leq \alpha$$

$$\rightarrow \frac{r - ry}{r} = \frac{+r}{-r}$$

$$\Rightarrow -ry + r = r \Rightarrow ry = -r \Rightarrow \boxed{y = -1}$$

$$\text{مساحة A} = \sqrt{14 + 9} = 5$$

$$\text{مساحة B} = \sqrt{\frac{9}{r} + r} = \sqrt{\frac{r^2}{r}} = \frac{r}{r}$$

$$\rightarrow r\left(\frac{a}{r}\right) + r(a) = a + 1 = \boxed{15}$$

-2

$$rmu + (m^r - 1)y = r$$

$$\Rightarrow \frac{r}{b} = a = \frac{-rm}{m^r - 1}$$

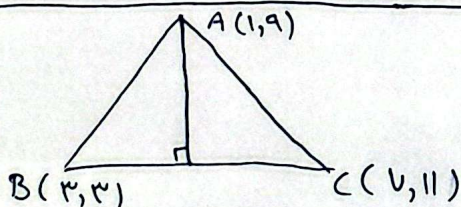
$$a = \tan \alpha \Rightarrow \tan 45^\circ = \sqrt{r}$$

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

$$m = \frac{-r \pm \sqrt{r^2 + 4r}}{2\sqrt{r}} = \left\{ \begin{array}{l} \frac{r - r}{2\sqrt{r}} = \frac{0}{2\sqrt{r}} = \frac{\sqrt{r}}{r} \\ \frac{-r - r}{2\sqrt{r}} = \frac{-2r}{2\sqrt{r}} = -\frac{r}{\sqrt{r}} = -\sqrt{r} \end{array} \right.$$

$$\frac{\sqrt{r}}{r} - (-\sqrt{r}) = \frac{\sqrt{r} + r\sqrt{r}}{r} = \boxed{\frac{r\sqrt{r}}{r}}$$

-3



$$y_{BC} = ax + b$$

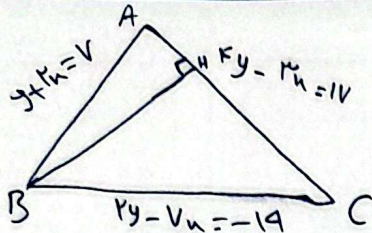
$$y = rx + b$$

$$r = 4 + b$$

$$\Rightarrow b = -r \Rightarrow y = rx - r \Rightarrow y - rx + r = 0$$

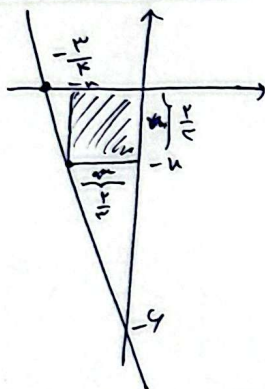
$$a = \frac{11 - 9}{5 - 1} = \frac{2}{4} = \frac{1}{2}$$

$$\text{مساحة B} = \frac{|ax + by - c|}{\sqrt{a^2 + b^2}} = \frac{|-r + 9 + r|}{\sqrt{1 + 1}} = \frac{10}{\sqrt{2}} = \frac{10\sqrt{2}}{2} = \boxed{5\sqrt{2}}$$



$$-x + V = \frac{V}{r}x - \frac{19}{r} \Rightarrow \frac{11}{r}x = \frac{rV}{r} \Rightarrow x = V \Rightarrow y = 1$$

$$\frac{|ax + by - c|}{\sqrt{a^2 + b^2}} = \frac{|f - 9 - 1V|}{\sqrt{r^2}} = \frac{|-rV - 10|}{r} = \boxed{\frac{rV}{r}}$$



$$|a| = \frac{\frac{rV}{r}}{\frac{r}{r}} = 1 \Rightarrow a = -1 \quad y = -1x - 4$$

$$-x = -1(-x) - 4$$

$$9x = 4 \Rightarrow x = \frac{4}{9}$$

$$h = \sqrt{\frac{r}{9} + \frac{r}{9}} = \boxed{\frac{r\sqrt{2}}{r}}$$

$$(1, r) \quad \frac{\sqrt{2}}{r} \quad y - ax = 1 \Rightarrow y = ax + 1 \Rightarrow y = x + 1 \quad a = \frac{1}{a} \Rightarrow a^2 = 1 \Rightarrow a = \pm 1$$

$$r = -1 + x$$

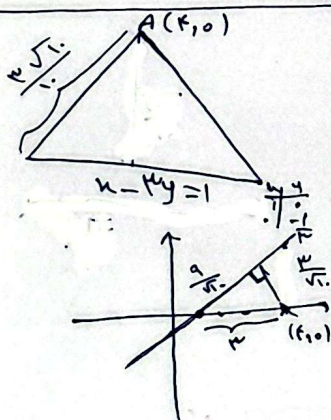
$$ay - x = a - 1$$

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

$$\sqrt{r^2} = \frac{1}{r} = \sqrt{\frac{r^2 - 1}{r}} = \frac{r\sqrt{r}}{r}$$

$$\frac{|c - c'|}{\sqrt{a^2 + b^2}} = \frac{|1 - 0|}{\sqrt{1 + 1}} = \frac{\sqrt{r}}{r}$$

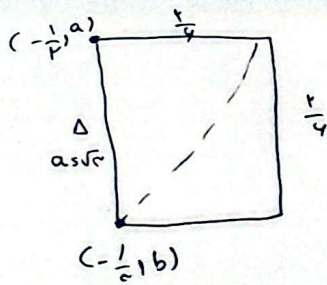
$$h = \frac{\sqrt{r}}{r} \times \frac{r\sqrt{r}}{r} = \boxed{\frac{r}{r}}$$



$$h = \frac{|ax + by - c|}{\sqrt{a^2 + b^2}} = \frac{|r - 1|}{\sqrt{1 + 9}} = \frac{r}{\sqrt{10}}$$

$$\sqrt{9 - \frac{9}{1}} = \frac{9}{\sqrt{10}}$$

$$\frac{r}{\sqrt{10}} \times \frac{9}{\sqrt{10}} \times \frac{1}{r} = \boxed{\frac{rV}{r_0}}$$



$$y = \sqrt{r} u + b'$$

$$a = -\frac{\sqrt{r}}{r} + b' \Rightarrow b' = a + \frac{\sqrt{r}}{r}$$

$$b = -\frac{\sqrt{r}}{r} + b' \Rightarrow b' = b + \frac{\sqrt{r}}{r}$$

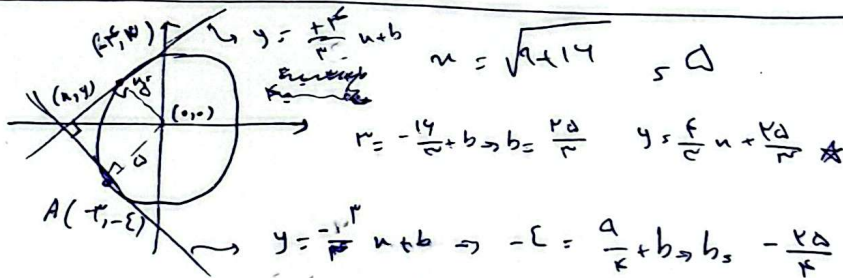
$$a + \frac{\sqrt{r}}{r} = b + \frac{\sqrt{r}}{r}$$

$$a - b = -\frac{\sqrt{r}}{r}$$

-9

$$\text{mid } b = \sqrt{\frac{1}{1r} + \frac{1}{r^2}} = \sqrt{\frac{r}{r^2}} = \frac{r}{r}$$

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



$$u = \sqrt{r+14} \quad \Delta$$

$$r = -\frac{14}{r} + b \Rightarrow b = \frac{r\Delta}{r}$$

$$y = \frac{f}{r} u + \frac{r\Delta}{r} \quad \star$$

$$y = -\frac{r}{r} u + b \Rightarrow -r = \frac{r}{r} + b \Rightarrow b = -\frac{r\Delta}{r}$$

$$y = -\frac{r}{r} u - \frac{r\Delta}{r} \quad \star$$

$$\star \rightarrow \frac{r}{r} u + \frac{r\Delta}{r} = -\frac{r}{r} u - \frac{r\Delta}{r}$$

$$\frac{r\Delta}{r} u = -\frac{r\Delta}{r} - \frac{r\Delta}{r}$$

$$r\Delta u = -14\Delta \Rightarrow u = -1$$

$$y = -1$$

$$u = -1$$