

(1) $ABCD$ (مربع) $m = \frac{1}{\sqrt{2}}$ $B(E, m)$ $A(-2, K)$

S $S?$ $-\frac{1}{\sqrt{2}} \leq \frac{m-K}{\sqrt{2}}$ $\leq \frac{m-K}{\sqrt{2}(-2)}$

$m-K \leq -2 \rightarrow m \leq K-2 \rightarrow AB \leq \sqrt{4^2 + (-2)^2} = \sqrt{20} = \sqrt{4 \cdot 5} = 2\sqrt{5}$

$S \leq AB^2 = (\sqrt{40})^2 = 40$

(2) $A(-1, 4)$ $B(2, 1)$ $C(x, y)$ $D(-1-x, y+2)$

$P_S?$

مربع $ABCD$ $\rightarrow$ C, D $\rightarrow$ $\frac{1}{2}$ $\rightarrow$ $\frac{1}{2}$

$M_A C = (-\frac{1+x}{2}, \frac{4+y}{2})$

$M_B D = (\frac{2+(-1-x)}{2}, \frac{1+y+2}{2}) = (\frac{1-x}{2}, \frac{y+3}{2})$

$-\frac{1+x}{2} = \frac{1-x}{2} \rightarrow -1+x = 1-x \rightarrow 2x = 2 \rightarrow x = 1$

$\frac{4+y}{2} = \frac{y+3}{2} \rightarrow 4+y = y+3 \rightarrow 4 = 3$

$C.D. = (-4)(1, 0) + (2)(y-1) = 0 \rightarrow 4 + 2y - 2 = 0 \rightarrow 2y + 2 = 0 \rightarrow 2y = -2 \rightarrow y = -1$

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

$CD = \sqrt{(-5)^2 + (3)^2} = \sqrt{25 + 9} = \sqrt{34}$

$P = 2(l + w) = 2(5 + \sqrt{34}) = 2 \times 10.5 = 21$

Q

$$m_1 = m_2$$

$$y_0 \leftarrow m, \text{ but } \tan \theta_0 = \sqrt{r}$$

$$m x_4 (m^r - 1) y_5 r$$

$$(m^r - 1) y_5 - r m x_4 r$$

$$y_5 - \frac{r m}{m^r - 1} x_4 + \frac{r}{m^r - 1} \rightarrow a_5 = \frac{r m}{m^r - 1} \quad a \text{ stang, } \sqrt{r}$$

$$- \frac{r m}{m^r - 1} \sqrt{r} \rightarrow - r m_5 \sqrt{r} (m^r - 1)$$

$$- r m_5 \sqrt{r} m^r - \sqrt{r} \rightarrow \sqrt{r} m^r + r m - \sqrt{r} s_0$$

$$m_5 = \frac{b + \sqrt{b^2 - 4ac}}{2a} \rightarrow m_5 = \frac{r \pm \sqrt{r^2 - 4(r)(-r)}}{2(\sqrt{r})} = \frac{r \pm \sqrt{r^2 + 4r^2}}{2\sqrt{r}} = \frac{r \pm \sqrt{5r^2}}{2\sqrt{r}}$$

$$m_1 = \frac{r + \sqrt{r}}{2\sqrt{r}} = \frac{1}{\sqrt{r}}$$

$$m_2 = \frac{r - \sqrt{r}}{2\sqrt{r}} = -\frac{1}{\sqrt{r}}$$

$$\rightarrow |m_1 - m_2| = \left| \frac{1}{\sqrt{r}} - \left(-\frac{1}{\sqrt{r}}\right) \right| = \left| \frac{2}{\sqrt{r}} \right|$$

$$\frac{r}{\sqrt{r}} \times \frac{\sqrt{r}}{\sqrt{r}} = \left(\frac{r\sqrt{r}}{r} \right)$$

(E)

$$A(69)$$

$$B(r, r)$$

$$C(v, 11)$$

$$AH$$

$$m_{BC} = \frac{y_2 - y_1}{x_2 - x_1} = \frac{11 - r}{v - r} = \frac{\Delta}{\epsilon} = r$$

$$\epsilon = |\epsilon| = |11 - r| = (r \times 11 - 1 \times r) = |BA \times BC|$$

$$|BC| = \sqrt{11^2 + r^2} = \sqrt{121 + 14} = \sqrt{135} = 3\sqrt{15}$$

$$AH = \frac{\epsilon}{\epsilon \sqrt{15}} = \frac{1}{\sqrt{15}} = \frac{\sqrt{15}}{15} = \left(\frac{r\sqrt{15}}{r\sqrt{15}} \right) = AH = r$$

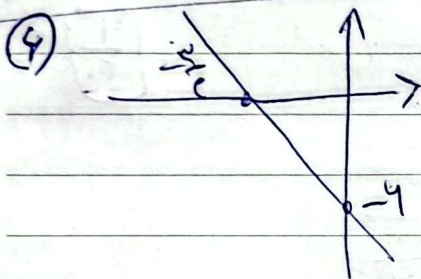
(3) $rx + y = V$

$$\epsilon y - rx = IV$$

$$ry - Vx = IV$$

$$\epsilon y - rx = IV \rightarrow \frac{ax_0 + by_0 + d}{\sqrt{a^2 + b^2}} \rightarrow \frac{|-r(r) + \epsilon(1) \cdot IV|}{\sqrt{\epsilon^2 + r^2}} \rightarrow \frac{|-r^2 + \epsilon IV|}{\sqrt{\epsilon^2 + r^2}}$$

$$\frac{|-r^2 + \epsilon IV|}{\omega} \rightarrow \left(\epsilon, \epsilon, \frac{r}{\omega} \right)$$



$$m s - y = 0 \quad s = \frac{y}{m}$$

$$0 - (-\frac{r}{\epsilon}) = \frac{r}{\epsilon} \quad s = 1$$

$$y = 1 \left(x = \frac{r}{\epsilon} \right) \quad y = 1 \cdot x$$

$$B = 0 - (-\frac{r}{\epsilon}) = \frac{r}{\epsilon}$$

$$d = s \sqrt{r} = \frac{r}{\epsilon} \sqrt{r} \rightarrow d = \frac{r \sqrt{r}}{\epsilon}$$

(5) $y = ax + b$ $ay = x + a - 1$ $\omega = \omega$ $\omega = (1, 2)$

$$s = ?$$

$$\frac{|E - C'|}{\sqrt{1^2 + (-1)^2}} = \frac{1}{\sqrt{2}} s \omega$$

$$\frac{V}{\sqrt{r}} = \sqrt{\frac{\epsilon A}{r}} = \sqrt{\frac{1}{r} - r \omega} = \sqrt{\omega - d^2} = \sqrt{L + W} = d^2$$

$$\frac{V}{\sqrt{r}} \times \frac{1}{\sqrt{r}} = \left(\frac{V}{r} \right) = A$$

(A) $A(\epsilon, \delta)$ $x - \text{mgsl}$ $(\frac{1}{\epsilon} \geq \frac{1}{F})$