

نام و نام خانوادگی جیسے: پاسخانمہ تشریحی تکلیف شماره ۱۰۰ کلاس (A).....

الف) $y - y_1 = m(x - x_1)$

$y - 2 = m(x - 1)$

$-2 - 2 = m(1 - 1) \rightarrow m = -4$

$y = -4x + 10$

ب) $x_1 + y_1 = -1 \rightarrow x_1 + y_1 + 1 = 0$

$\frac{x}{a} + \frac{y}{b} = 1 \rightarrow \left\{ \begin{array}{l} a=1 \\ b=1 \end{array} \right. \rightarrow y + x + C = 0$

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

ج) $x + 3y = 1 \rightarrow y = -\frac{1}{3}x + \frac{1}{3} \rightarrow a' = -\frac{1}{3}$

$a' = 3$ $y = 3x + b$

$y - 2 = 3(x - 1) \rightarrow y = 3x - 1$

د) $a = \tan \theta = \sqrt{3}$

$(y - 2) = \sqrt{3}(x - 1)$

$y - 2 = \sqrt{3}x - \sqrt{3} \rightarrow y = \sqrt{3}x - \sqrt{3} + 2$

ه) $|ax_1 + by_1 + c|$ $x_1 + y_1 = 3$

$\sqrt{a^2 + b^2}$ $x_1 + y_1 - 3 = 0$

جواب: $\frac{|3(1) + 1(1) - 3|}{\sqrt{3^2 + 1^2}} = \frac{1}{2} = 0.5$

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و) $d = \frac{|C - C'|}{\sqrt{a^2 + b^2}}$ $\frac{|4 - 1|}{\sqrt{1^2 + 1^2}}$

$\frac{3}{\sqrt{2}} = \frac{3}{\sqrt{2}} = \frac{3\sqrt{2}}{2}$

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ز) $|x_1 + y_1 - 3| = |x_2 - y_2 - 1|$

$x_1 + y_1 - 3 = x_2 - y_2 - 1$

$-x + 5y = 2$

$x_1 + y_1 - 3 = -x_2 + y_2 + 1$

$2x + y = 4$

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ح) $\tan \alpha = \left| \frac{m - m'}{1 + mm'} \right|$ $\frac{1 - (-2)}{1 + (1)(-2)} = \left| \frac{3}{-1} \right| = \left| -3 \right| = 3$

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$\tan \alpha = 1 \rightarrow \alpha = 45^\circ$

$\beta = 180^\circ - \alpha = 180^\circ - 45^\circ = 135^\circ$

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$$\sqrt{(x_1 - x_2)^2 + (y_1 - y_2)^2}$$

$$\sqrt{(-1 - (-1))^2 + (-2 - (-2))^2} = \sqrt{(-1)^2 + (-2)^2}$$

$$\sqrt{1 + 4} = \sqrt{5} = 1$$

$$(x', y') : x' = \frac{x_1 + x_2}{2} = \frac{-1 + 1}{2} = 0$$

$$y' = \frac{y_1 + y_2}{2} = \frac{-2 + 2}{2} = 0$$

$$P(-1, 1)$$

$$1$$

$$x' = \frac{x_1 + x_2 + x_3}{3}$$

$$y' = \frac{y_1 + y_2 + y_3}{3}$$

$$x' = \frac{-1 + 1 + 1}{3} = \frac{1}{3} = 1$$

$$y' = \frac{-1 + 1 + 1}{3} = \frac{1}{3} = 1$$

نقطة

$$(-1, -1)$$

$$1$$

$$\begin{vmatrix} 1 & -1 & 1 \\ 1 & 1 & 1 \\ 1 & 1 & 1 \end{vmatrix} =$$

$$= \frac{1}{3} \times 1 = \frac{1}{3} = 1$$

$$= \frac{1}{3} \times 1 = \frac{1}{3} = 1$$

$$(x, y) \rightarrow (x, -y)$$

$$y' = \frac{-x + 1}{x - 1} = \frac{-x + 1}{x - 1}$$

$$(x, y) \rightarrow (-x, y)$$

$$y' = \frac{x(-x) + 1}{x(-x) - 1} = \frac{-x^2 + 1}{-x^2 - 1}$$

$$(x, y) \rightarrow (y, x)$$

$$x = \frac{xy + 1}{xy - 1} \rightarrow y' = \frac{-x + 1}{x - 1} + y' = \frac{x + 1}{x - 1}$$

$$(x, y) \rightarrow (-y, -x)$$

$$-x = \frac{-y + 1}{-y - 1} \rightarrow x = \frac{y + 1}{y - 1} \rightarrow y' = \frac{y + 1}{y - 1}$$

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

$$x' = x - r$$

$$y' = y - (-r) = y + r$$

$$x = x' + r$$

$$y = y' - r$$

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

$$y' = \frac{rx + 1}{x - 1}$$

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

$$y' = \frac{rx + 1}{x - 1}$$

$$y = \frac{rx - 1 - rx + 1}{x - 1} \rightarrow y = \frac{-x + 1}{x - 1}$$

$$x' = x - r$$

$$y' = y - r$$

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

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

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

$$y' + r = \frac{rx' + 1}{x'}$$

$$y' = \frac{r}{x'}$$

$$\begin{cases} rx + \varepsilon y = r \\ x - \omega y = 1 \rightarrow x = \omega y + 1 \end{cases}$$

$$x = \omega y + 1$$

$$r(\omega y + 1) + \varepsilon y = r$$

$$19y = 1 \rightarrow y = \frac{1}{19}$$

$$x = \omega \left(\frac{1}{19}\right) + 1 = \frac{-\omega}{19} + \frac{19}{19} = \frac{18}{19}$$

$$x = -\frac{b'c'}{b'c'}$$

$$y = \frac{a'c'}{a'b'}$$

$$x = -\frac{1 \cdot \varepsilon}{1 - \omega} = \frac{-\varepsilon}{1 - \omega}$$

$$y = \frac{1 \cdot 1}{1 - \omega} = \frac{1}{1 - \omega}$$

$$x = \frac{18}{19} \quad y = \frac{1}{19}$$

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