

نام و نام خانوادگی پاسخنامه تشریحی تکلیف شماره کلاس پایه هفتم

$$m = \frac{\partial y}{\partial x} = \frac{2 - (-2)}{1 - 0} = \frac{4}{1} = 4$$

$$y = -x + b \Rightarrow 1 = -1 + b \Rightarrow b = 2$$

$$y = -x + 1$$

$$ry + 3x = b \quad \underline{\underline{1f}} \quad f + rf = b = r\lambda \Rightarrow ry + 3x = r\lambda$$

$$= \sqrt{xy + 1} = \sqrt{x+1}$$

$$x + ry = 1 \quad \underline{\underline{1}}) \quad -rx + y = b \quad \underline{\underline{1r}}) \quad -1r + r = b = -10$$

$$\Rightarrow \boxed{-x + y = -10}$$

$$m = \tan \frac{\pi}{2} = \infty$$

$$y = \sqrt{x} + b \Rightarrow r = r\sqrt{x} + b \Rightarrow b = r - r\sqrt{x}$$

$$y = \sqrt{x+2} - 4\sqrt{x}$$

$$\sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2} = \sqrt{3^2 + (-1)^2} = \sqrt{9+1} = \textcircled{10} \checkmark \quad (\text{الف})$$

$$r_H + r_y - r = 0$$

$$\frac{|\cancel{r}/r + \cancel{c}/(r-c)|}{\sqrt{(r)^2 + (c)^2}} = \frac{|1+d|}{|d|} = \frac{1+d}{d} = \textcircled{r} \quad \checkmark \quad (-)$$

$$\left. \begin{array}{l} 2x + 3y = 4 \\ 2x + 3y = 5 \end{array} \right\} \xrightarrow[\text{دعا}]{\text{الخطا}} 2x + 3y = \frac{4+5}{2} \Rightarrow 2x + 3y = \textcircled{4.5} \quad \checkmark \quad (\text{الف})$$

$$r_x + r_y = d$$

$$r_x + r_y = r$$

$$r_1 + r_2 = 4$$

$$\frac{|f - f|}{\sqrt{(f)^2 + (f)^2}} = \frac{2}{\sqrt{12}} = \boxed{\frac{2\sqrt{3}}{12}}$$

$$\frac{|rx - ry - 1|}{\sqrt{r_x^2 + r_y^2}} = \frac{|rx + ry - r|}{\sqrt{(r_x)^2 + (r_y)^2}} \Rightarrow \frac{|rx - ry - 1|}{\cancel{\sqrt{r_x^2 + r_y^2}}} = \frac{|rx + ry - r|}{\cancel{\sqrt{r_x^2 + r_y^2}}}$$

$$\Rightarrow |rx - ry - 1| = |rx + ry - 1| \rightarrow \begin{cases} rx - ry - 1 = rx + ry - 1 \Rightarrow \boxed{dy - x = 0} \\ rx - ry - 1 = -rx - ry + 1 \Rightarrow \boxed{dx + y = 1} \end{cases}$$

$$y = rx + d$$

$$y = -x + 1$$

$$\tan \alpha = \left| \frac{m - m'}{1 + mm'} \right| = \left| \frac{1 - (-1)}{1 - 1} \right| = \left| \frac{2}{0} \right| = \infty \Rightarrow \alpha = 90^\circ$$

$$AB = \sqrt{(0x)^2 + (0y)^2} = \sqrt{8^2 + 1^2} = \sqrt{64 + 1} = \sqrt{65} = (10) \checkmark \quad \text{الف}$$

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$$M \begin{vmatrix} \frac{x_1 + x_2}{y_1 + y_2} = \frac{3-2}{1} = -1 \\ \frac{y_1 + y_2}{x_1 + x_2} = \frac{1-2}{1} = -1 \end{vmatrix} \Rightarrow M \begin{vmatrix} -1 \\ -1 \end{vmatrix} \checkmark \quad \text{ب}$$

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$$M \begin{vmatrix} \frac{x_1 + x_2 + x_3}{y_1 + y_2 + y_3} = \frac{-10 - 2 + 3}{3} = -3 \\ \frac{y_1 + y_2 + y_3}{x_1 + x_2 + x_3} = \frac{-13 + 3 + 1}{3} = -3 \end{vmatrix} \rightarrow M \begin{vmatrix} -3 \\ -3 \end{vmatrix} \checkmark \quad \text{الف}$$

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$$\frac{1}{3} \begin{vmatrix} 3 & 1 & 1 \\ -2 & 3 & 1 \\ -10 & -13 & 1 \end{vmatrix} = \frac{1}{3} [9 + (-10) + (33) - (-30) - (-2) - (-31)] \quad \text{ب}$$

$$= \frac{1}{3} [96] = 32 \checkmark$$

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$$-y = \frac{2x+1}{2x-3} \Rightarrow y = \frac{2x+1}{3-2x} \checkmark \quad y \rightarrow -y \quad \text{الف}$$

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$$y = \frac{-2x+1}{-2x-3} = \frac{2x-1}{2x+3} \checkmark \quad x \rightarrow -x \quad \text{ب}$$

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$$x = \frac{2y+1}{2y-3} \Rightarrow y = \frac{2x+1}{2x-3} \checkmark \quad x \rightarrow y \quad \text{ج}$$

$$y \rightarrow x$$

$$-x = \frac{-2y+1}{-2y-3} \Rightarrow x = \frac{2y+1}{2y+3} \Rightarrow y = \frac{2x+1}{2x+3} \checkmark \quad x \rightarrow -y \quad \text{د}$$

$$y \rightarrow -x$$

$$y' - 2 = \frac{2x' + 1}{x' - 3} = \frac{2x' + 1}{x' - 1} \quad x' = x - 2 \Rightarrow x = x' + 2 \quad \text{الف}$$

$$y' = y + 2 \Rightarrow y = y' - 2$$

$$\Rightarrow y' = \frac{2x' + 1}{x' - 1} + 2 \Rightarrow y' = \frac{2x' + 1 + 2x' - 2}{x' - 1} = \frac{4x' - 1}{x' - 1} \checkmark$$

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$$y' + 2 = \frac{2x' + 1}{x' - 3} = \frac{2x' + 1}{x' - 1} \quad x' = x - 2 \Rightarrow x = x' + 2 \quad \text{ب}$$

$$y' = y - 2 \Rightarrow y = y' + 2$$

$$\Rightarrow y' = \frac{2x' + 1}{x' - 1} - 2 = \frac{2x' + 1 - 2x' + 2}{x' - 1} = \frac{3}{x' - 1} \checkmark$$

$$y' = y - 2 \Rightarrow y = y' + 2$$

$$\begin{cases} 2x + 4y = 2 \\ x - 5y = 1 \end{cases} \xrightarrow{\times 2} \begin{cases} 2x + 4y = 2 \\ 2x - 10y = 2 \end{cases} \xrightarrow{-} \begin{cases} 2x + 4y = 2 \\ 14y = -1 \end{cases} \Rightarrow y = -\frac{1}{14} \Rightarrow x = \frac{15}{14} \checkmark \quad \text{الف}$$

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$$\begin{aligned} 2x + 4y &= 2 \\ x - 5y &= 1 \end{aligned}$$

$$x = -\frac{4 - (-10)}{-10 - 2} = -\frac{14}{-12} = \frac{7}{6} \checkmark$$

$$y = \frac{2 - 2}{-10 - 2} = -\frac{1}{12} \checkmark$$

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