

$$\frac{12}{(682)} \textcircled{1} y' = \frac{(x-1)-(x+6)}{(x+1)^2} = \frac{-7}{(x+1)^2}, y'(2) = \frac{-7}{9} = -\frac{7}{9}$$

$$\textcircled{2} y-8 = -\frac{7}{9}(x-2) \rightarrow y = -\frac{7}{9}x + \frac{22}{9}$$

$$\frac{13}{(682)} \textcircled{1} y' = \frac{(2x-1)-2(x+2)}{(2x-1)^2} = \frac{-5}{(2x-1)^2} \rightarrow y'(1) = -5, (1, 3)$$

$$y-3 = -5(x-1) \rightarrow \boxed{y = -5x+8}$$

$$\textcircled{2} y' = \frac{1}{4} - \frac{4}{x^2} \rightarrow y'(4) = 0, (4, 2) \rightarrow \boxed{y = 2}$$

$$\textcircled{3} y' = \frac{3(x+1)^2x - (x+1)^3}{x^2} \rightarrow y'(1) = 4, (1, 8)$$

$$y-8 = 4(x-1) \rightarrow \boxed{y = 4x+4}$$

$$\frac{14}{(682)} \textcircled{1} -3 = y' = \frac{2(x-3)-(2x+6)}{(x-3)^2} = \frac{-12}{(x-3)^2} \Rightarrow \begin{matrix} x=5 & (5, 8) \\ x=1 & (1, -4) \end{matrix}$$

$$\textcircled{2} \begin{matrix} y-8 = -3(x-5) \rightarrow y = -3x+23 & x=5 & \text{נקודה} \\ y-(-4) = -3(x-1) \rightarrow y = -3x-1 & x=1 & \text{נקודה} \end{matrix}$$

$$\frac{15}{(682)} y' = \frac{4}{3} = \frac{3}{2} - \frac{2}{3x^2} \rightarrow \begin{matrix} x=2 & (2, \frac{1}{3}) \\ x=-2 & (-2, -\frac{1}{3}) \end{matrix}$$

$$x=2: y - \frac{1}{3} = \frac{4}{3}(x-2) \rightarrow y = \frac{4}{3}x - \frac{5}{3}$$

$$x=-2: y - (-\frac{1}{3}) = \frac{4}{3}(x-(-2)) \rightarrow y = \frac{4}{3}x - \frac{2}{3}$$

$$\frac{16}{(682)} 2 = \frac{x+6}{x-1} - \frac{x-8}{x-1} \quad y' = \frac{(x-1)-(x+6)}{(x-1)^2} = \frac{-7}{(x-1)^2} \quad y'(8) = -\frac{1}{7}$$

$$y-2 = -\frac{1}{7}(x-8) \rightarrow y = -\frac{1}{7}x + \frac{31}{7}$$

$$\frac{17}{(682)} 0 = \frac{x^2}{2} + \frac{4}{x} \rightarrow 0 = x^3 + 8 \rightarrow \boxed{x = -2} \quad (-2, 0)$$

$$y' = x - \frac{4}{x^2} \quad y'(-2) = -3$$

$$y-0 = -3(x-(-2)) \rightarrow \boxed{y = -3x-6}$$

$$\frac{18}{(682)} \textcircled{1} y' = \frac{2(x^2+2)-2x(2x-1)}{(x^2+2)^2} = \frac{-2x^2+2x+4}{(x^2+2)^2}$$

$$y'=0 = \frac{-2x^2+2x+4}{(x^2+2)^2} \rightarrow \begin{matrix} x=2 & (2, \frac{1}{2}) \\ x=-1 & (-1, -\frac{1}{2}) \end{matrix}$$

$$\therefore 0 = x - \frac{1}{x} \quad \text{סימטריה נגדית}$$

$$\textcircled{2} y = \frac{1}{2} \quad y = -1$$

$$\textcircled{3} \frac{1}{2} - (-1) = 1\frac{1}{2}$$