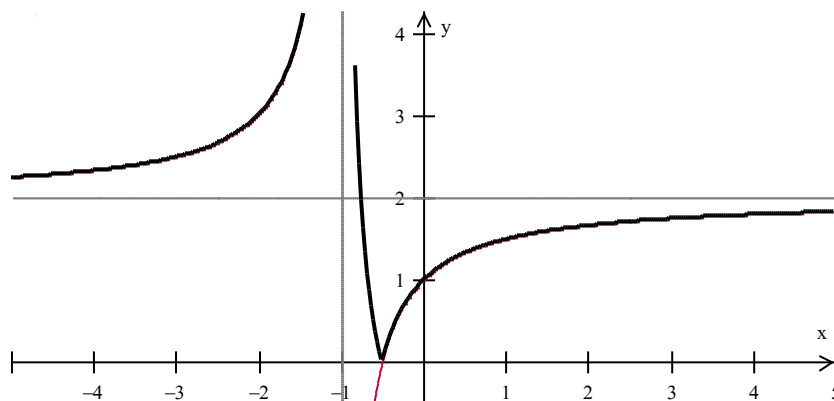


$$\text{PR.1: } f: y = \left| \frac{2x+1}{x+1} \right|$$

$$f': y = \frac{2x+1}{x+1} = 2 + \frac{-1}{x+1}$$

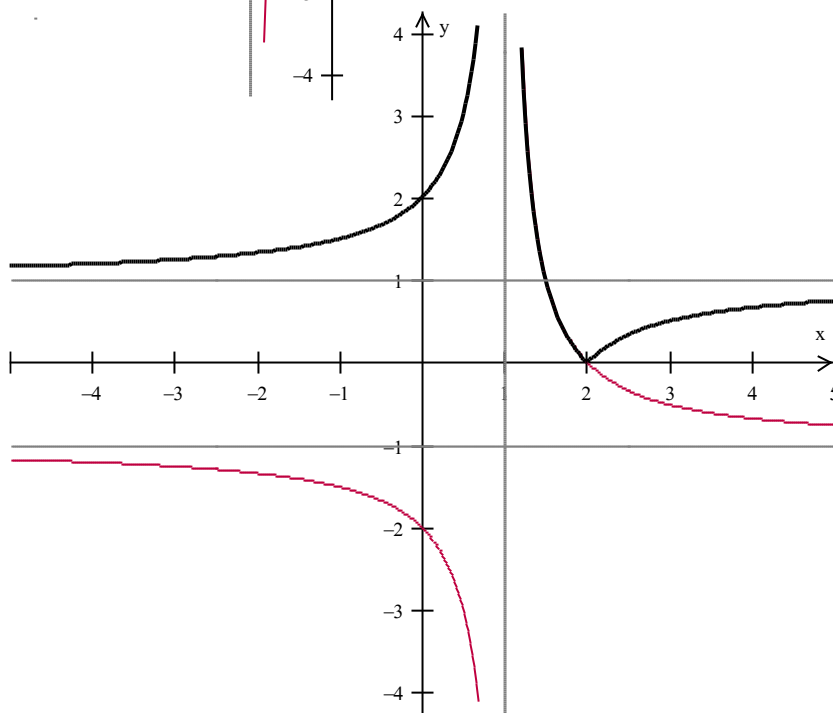
$$S[-1,2], P_x\left[\frac{-1}{2}, 0\right], P_y[0,1]$$



$$f: y = \left| \frac{x-2}{1-x} \right|$$

$$f': y = \frac{x-2}{1-x} = \frac{-x+2}{x-1} = -1 + \frac{1}{x-1}$$

$$S[1,-1], P_x[2,0], P_y[0,-2]$$



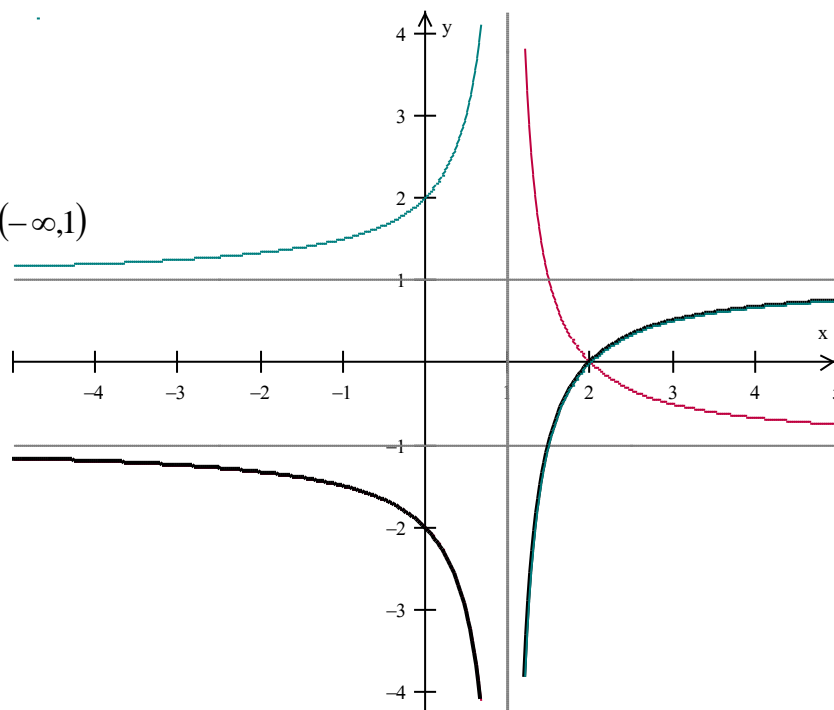
$$f: y = \frac{x-2}{|1-x|}$$

$$f': y = \frac{x-2}{1-x} = \frac{-x+2}{x-1} = -1 + \frac{1}{x-1} \quad x \in (-\infty, 1)$$

$$S'[1,-1], P_x[2,0], P_y[0,-2]$$

$$f'': y = \frac{x-2}{x-1} = 1 - \frac{1}{x-1} \quad x \in (1, \infty)$$

$$S''[1,1], P_x[2,0], P_y[0,2]$$



$$f : y = \left| \frac{4x + 2}{5x - 1} \right|$$

$$f' : y = \frac{4x + 2}{5x - 1} = \frac{4}{5} + \frac{\frac{14}{5}}{5x - 1} = \frac{4}{5} + \frac{\frac{14}{25}}{x - \frac{1}{5}}$$

$$S' \left[\frac{1}{5}, \frac{4}{5} \right], P_x \left[\frac{-1}{2}, 0 \right], P_y [0, -2]$$

