

$$\boxed{32} \quad y = (\ln x)^{-1} \quad (\text{chain rule})$$

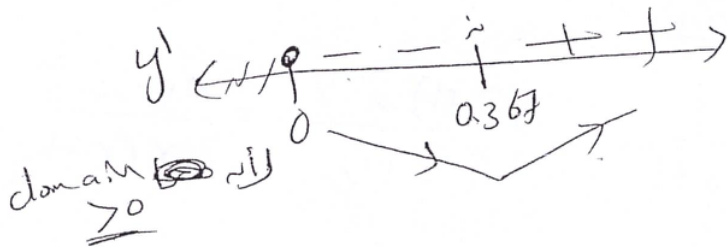
$$\begin{aligned} \rightarrow y' &= -1 (\ln x)^{-2} \left(\frac{1}{x}\right) \\ &= \frac{-1}{x (\ln x)^2} \end{aligned}$$

$\boxed{39}$  Find the relative maxima and minima.

$$y = x \ln x$$

$$\begin{aligned} \rightarrow y' &= x \cdot \frac{1}{x} + \ln x (1) \\ &= 1 + \ln x \end{aligned}$$

$$\begin{aligned} y' &= 0 \\ \ln x &= -1 \rightarrow e^{\ln x} = e^{-1} \\ x &= e^{-1} = 0.367 \end{aligned}$$



relative max. = No points.

$$\begin{aligned} \text{min.} &= (0.367, f(0.367)) \\ &= (0.367, -0.367) \end{aligned}$$

$$(e^{-1}, f(e^{-1})) = (e^{-1}, -e^{-1})$$