

14.23

$$\begin{aligned}\boxed{f'(0)} &= \lim_{x \rightarrow 0} \frac{f(x) - f(0)}{x} \stackrel{\substack{f(x) = \eta\mu^2 x + 1993 \\ f(0) = 1993}}{=} \lim_{x \rightarrow 0} \frac{\eta\mu^2 x + \cancel{1993} - \cancel{1993}}{x} = \lim_{x \rightarrow 0} \frac{\eta\mu^2 x}{x} = \\ &= \lim_{x \rightarrow 0} \frac{\eta\mu x}{x} \cdot \lim_{x \rightarrow 0} (\eta\mu x) = 1 \cdot 0 = \boxed{0}\end{aligned}$$