

$$\frac{b}{n} = \frac{4}{5} \left( \frac{n-m}{n} \right)^2 + 4 \left( 1 - \frac{m-m}{n} \right) \left( \frac{m-m}{n} \right)$$

$$= \frac{4(n-m)^2}{5(n)^2} + 4(n-m) - 4(n-m)^2$$

$$=\frac{-1b}{5}\left(\frac{m}{n}-1\right)^2+4\left(1-\frac{m}{n}\right)$$

$$= -\frac{16}{5} \left( \left( \frac{m}{n} \right)^2 - \frac{2m}{n} + 1 \right) + 4 - 4m$$

$$= \frac{-16}{5} \left(\frac{m}{n}\right)^2 + \frac{32}{5} \frac{m}{n} - \frac{16}{5} + 4 - 4m$$

$$-\frac{-16}{5}\left(\frac{m}{n}\right)^2 + \frac{12}{5}\left(\frac{m}{n}\right) + \frac{4}{5}$$

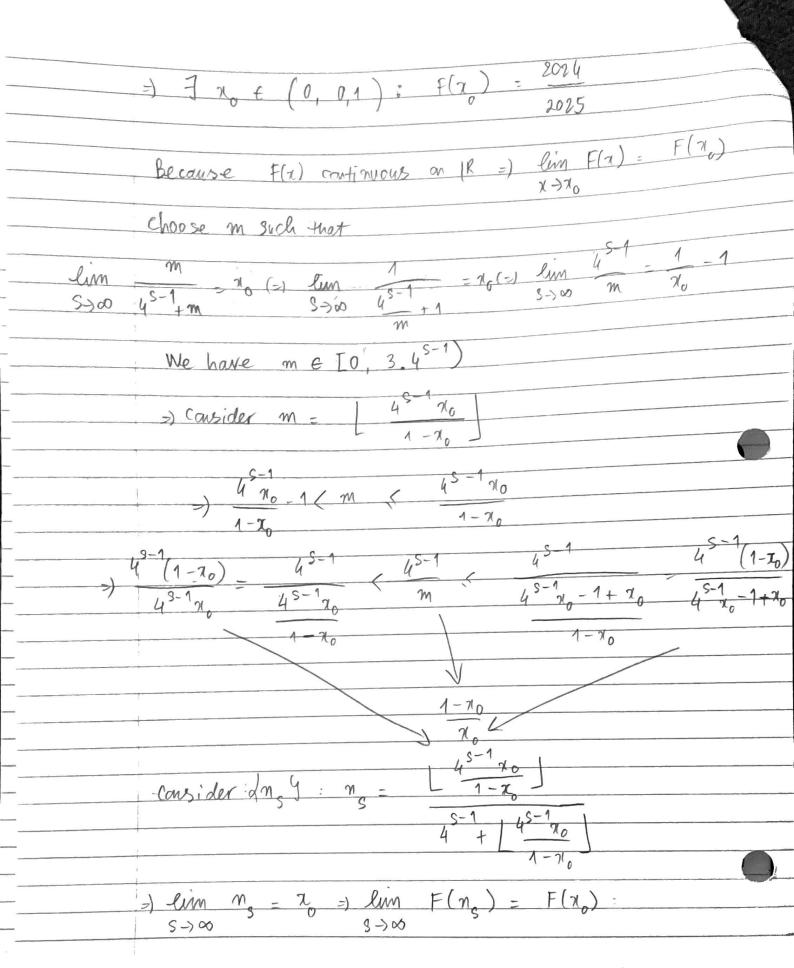
Consider  $F(x) = -\frac{16}{5}x^2 + \frac{92}{5}x + \frac{4}{5}$ 

$$+ f'(x) = \frac{-32}{5}x + \frac{12}{5}$$

$$\frac{3}{8}$$
  $+\infty$ 

H(z) /

We have 
$$f(x)$$
 continuous on IR and  $f(0,1)$  >  $\frac{2024}{2075}$  >  $F(0)$ 



$$\frac{1}{3 \cdot 200} = \frac{1}{3 \cdot 200$$