Bellwork 10/31

$$f(x) = \tan^{-1}\left(\frac{x}{2}\right)$$

Find the equation of the line tangent to f at $x = 2$.

reset

Bellwork 10/31 - Solution

$$f'(x) = \frac{2}{4 + x^2}$$

Point-Slope Form: $y - f(2) = f'(2)(x - 2)$

$$\implies y = \frac{1}{4}(x - 2) + \frac{\pi}{4}$$