$y = -\operatorname{ctg}\left(\frac{\pi}{3} - 5x\right) - 2$ $\quad x_0 = \frac{\pi}{30}$

$y = f'(x_0)(x - x_0) + f(x_0)$

$y' = \frac{5}{\sin^2\left(\frac{\pi}{3} - 5x\right)}$

$y'\left(\frac{\pi}{30}\right) = \frac{5}{\sin^2\left(\frac{\pi}{5} - \frac{\pi}{6}\right)} = \frac{5}{\sin^2\left(\frac{\pi}{6}\right)} = \frac{5}{\frac{1}{4}} = 20$

$y\left(\frac{\pi}{30}\right) = -\operatorname{ctg}\left(\frac{\pi}{3} - \frac{\pi}{6}\right) - 2 = -\operatorname{ctg}\frac{\pi}{6} - 2 = -\sqrt{3} - 2$

Ур-е прямой: $y = 20\left(x - \frac{\pi}{30}\right) - \sqrt{3} - 2$