$$\cos\left(\left(\sin(\tan\pi x)\right)^{\frac{1}{2}}\right)$$

$u = \left(\sin(\tan\pi x)\right)^{\frac{1}{2}}$ $\quad y = \cos(u$

$u' = \frac{1}{2}\left(\sin(\tan\pi x)\right)^{-\frac{1}{2}} \cdot \pi \sec^2 \pi x \cos(\tan\pi x)$ $\quad y = -\sin u$

$u'y' = \frac{1}{2}\left(\sin(\tan\pi x)\right)^{-\frac{1}{2}} \cdot \pi \sec^2 \pi x \cos(\tan\pi x) \cdot -\sin\left(\sin(\tan\pi x)\right)^{\frac{1}{2}}$

$w = \sin(\tan\pi x)$

$R = \tan\pi x$ $\quad w = \sin R$

$R' = \pi \sec^2 \pi x$ $\quad w' = \cos R$

$R' \cdot w' = \pi \sec^2 \pi x \cos(\tan\pi x)$

$Q = \tan\pi x$

$L = \pi x$ $\quad Q = \tan L$

$L' = \pi$ $\quad Q' = \sec^2 L$

$L'Q' = \pi \sec^2 \pi x$

$y = \sqrt{2x^2-7} = (2x^2-7)^{\frac{1}{2}}$ $(4,5)$

$y' = \frac{1}{2}(2x^2-7)^{-\frac{1}{2}} \cdot 4x$

$y' = \frac{2x}{\sqrt{2x^2-7}}$ $\frac{2 \cdot 4}{\sqrt{2 \cdot 16 - 7}} = \frac{8}{\sqrt{25}} = \frac{8}{5}$

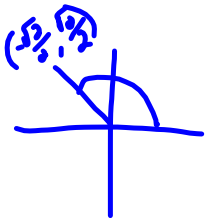
$y - 5 = \frac{8}{5}(x-4)$

$y - 5 = \frac{8}{5}x - \frac{32}{5}$ $+5 = \frac{25}{5}$

$+5$

$y = \frac{8}{5}x - \frac{7}{5}$

$y = \cos 3x$ $\left(\frac{\pi}{4}, -\frac{\sqrt{2}}{2}\right)$



$u = 3x$ $y = \cos u$

$u' = 3$ $y' = -\sin u$

$u'y' = -3\sin 3x$

$= -3\sin 3\cdot\frac{\pi}{4} = -3\cdot\frac{\sqrt{2}}{2} = -\frac{3\sqrt{2}}{2}$

$y + \frac{\sqrt{2}}{2} = -\frac{3\sqrt{2}}{2}\left(x - \frac{\pi}{4}\right)$

$y + \frac{\sqrt{2}}{2} = -\frac{3\sqrt{2}}{2}x + \frac{3\pi\sqrt{2}}{8}$

$-\frac{\sqrt{2}}{2}$ $-\frac{\sqrt{2}\cdot 4}{2\cdot 4}$ $\frac{4\sqrt{2}}{8}$

$y = -\frac{3\sqrt{2}}{2}x + \frac{3\pi\sqrt{2} - 4\sqrt{2}}{8}$

$y = \tan^2 x = (\tan x)^2 \quad \left(\frac{\pi}{4}, 1\right)$

$y' = 2(\tan x)' \cdot \sec^2 x$

$= 2 \cdot 1 \cdot \left(\frac{2}{\sqrt{2}}\right)^2$

$= 2 \cdot \frac{4}{2} = 4$

$y - 1 = 4\left(x - \frac{\pi}{4}\right)$

$y - 1 = 4x - \pi$

$+1 \qquad +1$

$y = 4x - \pi + 1$