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(1)

$f'(x) = \pi x^{\pi-1} + \ln(\pi)\pi^{x}$

(2) $g'(x) = \frac{1}{\cos x} \cdot -\sin x = -\tan x$

(3) $h(x) = x^2 \ln e = x^2$

$\Rightarrow h'(x) = 2x$