Note Check → 2.5

Ex 1: $\frac{d}{dx}[\sin x] =$ $\frac{d}{dx}[\cos x] =$ —

$\frac{d}{dx}[\tan x] =$ $\frac{d}{dx}[\sec x] =$

$\frac{d}{dx}[\csc x] =$ $\frac{d}{dx}[\cot x] =$

Ex 2: $\frac{dy}{dx}$ for $y = x\sin(x)$

$\frac{dy}{dx} = \frac{d}{dx}[x] \cdot$ $+ x \cdot \frac{d}{dx}[\quad]$

... Find Tangent Line @ $x = \pi/2$

$m =$ $(\quad , \quad) \rightarrow y - \quad = \quad (x - \quad)$

Ex 3: $y = \frac{\sin(x)}{1+\cos(x)}$, $\frac{dy}{dx} = \frac{(\quad)\cdot\frac{d}{dx}[\quad] - \quad\cdot\frac{d}{dx}[\quad]}{(\quad)^2}$

Ex 4: A Spring Stretched...

$S(t) =$

$V(t) =$

$V(t) =$

$V(t) =$