

## Teilor

December 13, 2021

Default equation :  $\tan(x)$

0 Derivative:  $\tan(x)$

1 Derivative:  $\frac{(1.000)'}{(\cos(x)^{2.000})}$

2 Derivative:  $\frac{(2.000 * \sin(x) * \cos(x))}{(\cos(x)^{4.000})}$

3 Derivative: 
$$\frac{(2.000 * (\cos(x) * \cos(x)) - 1.000 * \sin(x) * \sin(x)) * \cos(x)^{4.000} - 8.000 * \sin(x) * \cos(x)^{3.000} * \sin(x) * \cos(x))}{(\cos(x))^{8.000}}$$

4 Derivative:  $(\cos(x))^{8.000} * (2.000 * (\cos(x))^{4.000} * (-1.000 * \sin(x) * \cos(x) + -1.000 * \sin(x) * \cos(x) + -1.000 * (\cos(x) * \sin(x) + \cos(x) * \sin(x))) + -4.000 * \sin(x) * (\cos(x))^{4.000})$

5 Derivative:  $(\cos(x)^{16.000}*(-8.000*\sin(x)*\cos(x)^{7.000}*(2.000*(\cos(x)^{4.000}*(-1.000*\sin(x)*\cos(x)+-1.000*\sin(x)*\cos(x)+-1.000*(\cos(x)*\sin(x)+\cos(x)*\sin(x))$

$$+1.000 * x + 0.333 * x^3 + 0.133 * x^5 + o(x^5)$$