

# Derivative

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Calculations 1 derivative:

$$(\tan(x))^{(1)} = \frac{(1.000)}{(\cos(x)^{2.000})}$$

1 Derivative :

$$(\tan(x))^{(1)} = \frac{(1.000)}{(\cos(x)^{2.000})}$$

Calculations 2 derivative:

$$(\cos(x))^{(1)} = -1.000 * \sin(x)$$

$$(\cos(x)^{2.000})^{(1)} = -2.000 * \sin(x) * \cos(x)$$

$$\left(\frac{(1.000)}{(\cos(x)^{2.000})}\right)^{(1)} = \frac{(2.000 * \sin(x) * \cos(x))}{(\cos(x)^{4.000})}$$

2 Derivative :

$$(\tan(x))^{(2)} = \frac{(2.000 * \sin(x) * \cos(x))}{(\cos(x)^{4.000})}$$

Calculations 3 derivative:

$$(\sin(x))^{(1)} = \cos(x)$$

$$(\cos(x))^{(1)} = -1.000 * \sin(x)$$

$$(\sin(x) * \cos(x))^{(1)} = \cos(x) * \cos(x) + -1.000 * \sin(x) * \sin(x)$$

$$(2.000 * \sin(x) * \cos(x))^{(1)} = 2.000 * (\cos(x) * \cos(x) + -1.000 * \sin(x) * \sin(x))$$

$$(\cos(x))^{(1)} = -1.000 * \sin(x)$$

$$(\cos(x)^{4.000})^{(1)} = -4.000 * \sin(x) * \cos(x)^{3.000}$$

$$\left(\frac{(2.000 * \sin(x) * \cos(x))}{(\cos(x)^{4.000})}\right)^{(1)} = \frac{(2.000 * (\cos(x) * \cos(x) + -1.000 * \sin(x) * \sin(x)) * \cos(x)^{4.000} - 8.000 * \sin(x) * \cos(x)^{3.000} * \sin(x) * \cos(x))}{(\cos(x)^{8.000})}$$

3 Derivative :

$$(\tan(x))^{(3)} = \frac{(2.000 * (\cos(x) * \cos(x) + -1.000 * \sin(x) * \sin(x)) * \cos(x)^{4.000} - 8.000 * \sin(x) * \cos(x)^{3.000} * \sin(x) * \cos(x))}{(\cos(x)^{8.000})}$$