

$$f := x \mapsto x \cdot \sin(x)$$

$$f := x \mapsto x \cdot \sin(x) \tag{1}$$

$$fp := D(f)$$

$$fp := x \mapsto \sin(x) + x \cdot \cos(x) \tag{2}$$

$$fpp := D(fp)$$

$$fpp := x \mapsto 2 \cdot \cos(x) - x \cdot \sin(x) \tag{3}$$

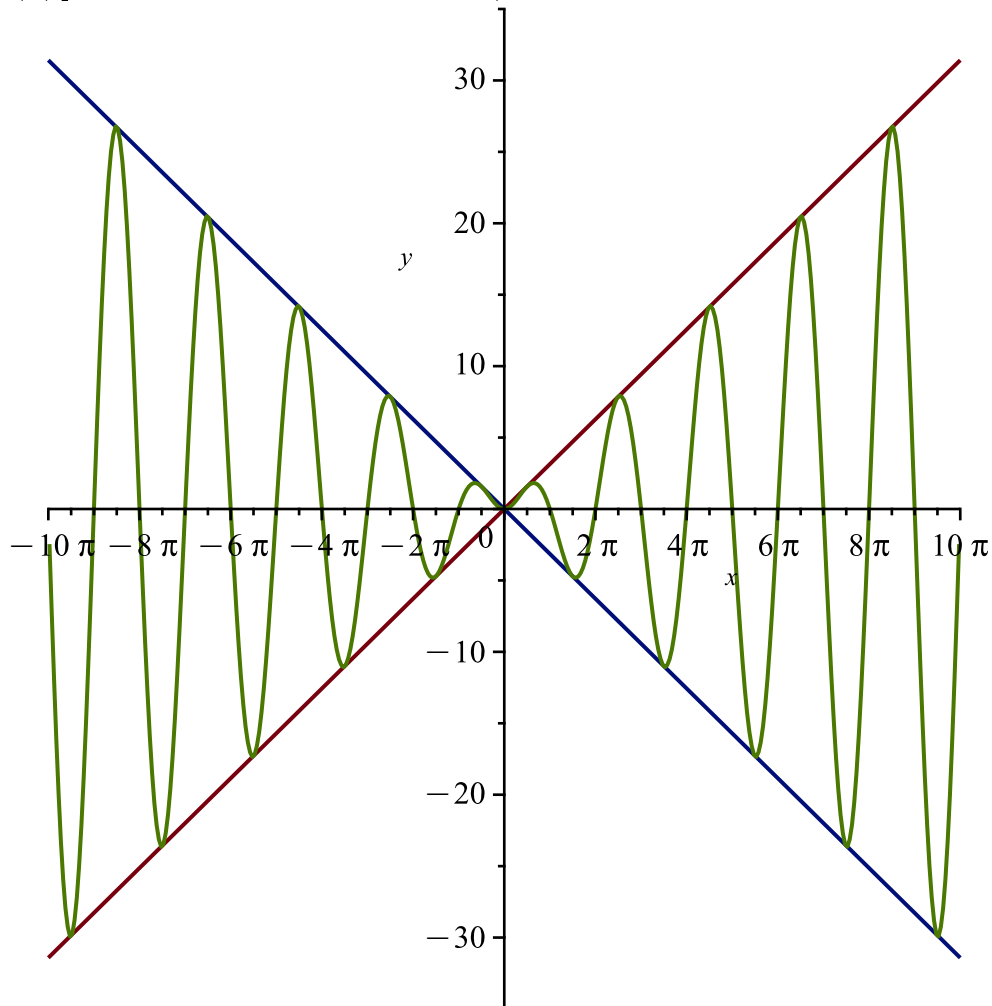
$$\text{solve}(fp(x) = 0)$$

$$\text{RootOf}(\tan(_Z) + _Z) \tag{4}$$

Not much help!

with(*plots*) :

plot([x, -x, f(x)], x = -10·Pi .. 10·Pi, y = -35 .. 35)



$$\text{solve}(\sin(x) = 1)$$

$$\frac{\pi}{2} \tag{5}$$

$$fp(x)$$

$$\sin(x) + x \cos(x) \tag{6}$$

$$fp\left(\frac{\pi}{2}\right)$$

1

(7)

$h := x \mapsto x + \tan(x)$

$h := x \mapsto x + \tan(x)$

(8)

$h\left(\frac{\text{Pi}}{2}\right)$

Error, (in tan) numeric exception: division by zero