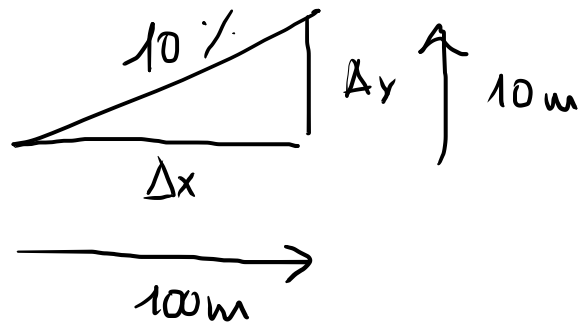# DERIVATE
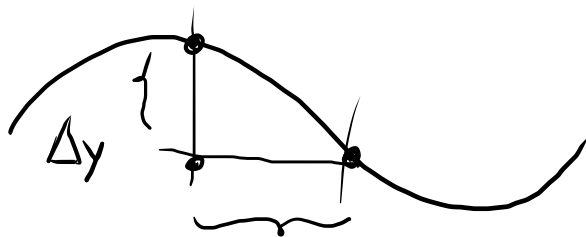
$$P = \frac{\Delta Y}{\Delta x} \cdot 100$$

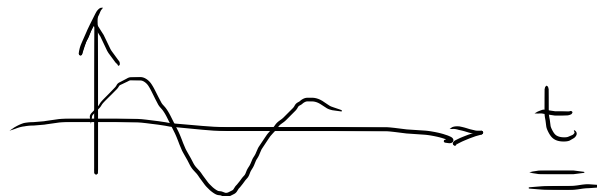$$= \frac{20m}{200m} \cdot 100 = 0.1 \cdot 100 = \underline{10 \%}$$

Δy

x_1 x_2
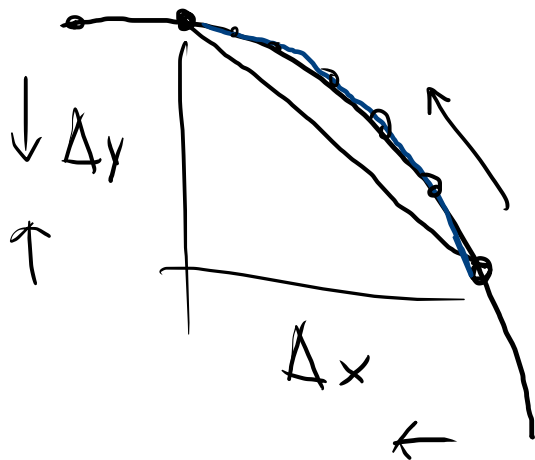
$10s$ $12s$

Δ

$\Delta x = x_2 - x_1 = 12 - 10 = 2s$

$$P = \frac{\Delta y}{\Delta x} = \frac{\Delta y}{\Delta t}$$

t

10% Δy $10m$

Δx

$100m$

$\Delta t \cdots \sim \left(\dfrac{dt}{}\right)$

$\dfrac{dy}{dx} \sim \left(\dfrac{dy}{dt}\right) \quad \dfrac{d}{dt}$

$\downarrow \Delta y$

$\uparrow$

Δx

y

A   sen

O

C

y^1

1

cos

B

1   1

t

t

A

P=1

O

COS

$-sen(x)$

hS

ℓ