Punts de mon devent.	
Sia f: (a, b) -112	um fu, x. e (a, b)
Supposts & continua:	(xo) of (xo) fourte & La La
	unto augoloso
	=  x   c' continue :n 0
	= 1 & f_(0) = -1  Longente: n X.
	app.: necessariale di f in xo = ±00
	punto de flosse a fangente venticale
Es.: fl	x) = x" Fi ambour in M, incluse x, = 0
	- V^ (L'/ > °
	$\frac{f(\kappa_s + k_1) \cdot f(\kappa_s)}{k} = \lim_{n \to 0} \frac{\sqrt[3]{k}}{k} = \lim_{n \to 0} \sqrt[3]{k^2} \Rightarrow +\infty$
	-s flosso a dans. verdicale
مداله دم	uce ( x. , +00 c /my + 191. 1 men. 5 -00 0 recorder
Es.: + (x) =	Tixi to defend a combine in 12
	M / / /
1:m f(1	$\frac{1-f(0)}{h} = \lim_{h\to 0^{-}} \frac{\sqrt{ h }}{h} = \lim_{h\to 0^{-}} \frac{ h }{h} = \lim_{h\to 0^{-}}  h$
Fé paul	! f(x) = √x x > 0
	× > 0
(4) Sc:n x, ln → x, é punt	$f'_{\pm}$ é finite e $f'_{\pm}$ é infinite $h$ auguloso
	solo a dr/s» de x. e l'unica deventa dr/ser i influta,
-> xo punts	NON DI FILLSO
Es.: classifica x. = 0	
*** f(x) = 2  ***  ***  ***	/
× <sup>3/2</sup> × <sup>3/2</sup> × <sup>3/2</sup>	$\frac{f(x_0+4)-f(x_0)}{4} = \lim_{h\to 0} \frac{f(h)-f(0)}{4} = \lim_{h\to 0} \frac{h^2-b^2}{h} = 0$
->	formabile in 0 = f'(0) = 0  (quind) une tangente ocizzontele g=0)
f(x), x*	
· dont	endumen in 12 2 1 2 2 1 2 2 00
[ o	1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -
	p. de les souls cuspide
f(x) * x	· 5 <sub>3</sub>
• dom	f = 10 mlinne in 10
• [c	1 - by 2/3 - 0
<i>s</i> )	desemble f'(0)=0, gro tangente
f(x) = 3	(
	Lunghi = donnt
	s punto a tour rentreals (cond flesso, solo der)
f(*) = x	$\mathcal{L}_{ad}$ $\mathcal{L}_{ad}$ $\mathcal{L}_{ad}$ $\mathcal{L}_{ad}$
• •	If & downf
• 6	-> divabile dada + + (0) = 0
	Exa = derivabile de de in 0?
€ <u>s.</u> ;	
Dopo our prolumento por en	1. d= f: u x. = 0, calcole F; (0).
lim e = 1 lim - 1	1 - 0 -> =  m 5(x)
polumo un f(0):=	$\frac{e^{\frac{1}{t}}}{e^{-\frac{1}{t}}} = \frac{1}{t^{-3-p_0}} - \frac{1}{t^{-\frac{1}{t}}} = 0 \cdot \infty  f(0) = 0$ $= \frac{1}{t^{-3-p_0}} - \frac{1}{t^{-\frac{1}{t}}} = 0$ $= \frac{1}{t^{-3-p_0}} - \frac{1}{t^{-\frac{1}{t}}} = 0$ $= \frac{1}{t^{-3-p_0}} - \frac{1}{t^{-\frac{1}{t}}} = 0$
1 t	, (-t) = t-3-10 
sics== ex. com	
Es.: f(x) . x ln x, x s o	
Mogols de color dolla dourne	si COMMOSIZIONE S CHUC IAVA Le comberace  ANGUSIONE St devinabilité?
T.: alg. devonte — f, g deviabilim	
(i) f = g som dimodil	b in x.
(ii) f g & downlob in (fg)'(x.) = f'(x.);	$(x_{-}) + f(x_{-})g'(x_{0})$
(iii) so g(<,) ≠ 0 →	Jan. in 16 Junistrapore
$\left(\frac{f}{\delta}\right)'(x_0) = \frac{f'(x_0)_{\beta}(x_0)}{[\beta]}$	$\frac{(x_0) \cdot f(x_0) \cdot g'(x_0)}{(x_0) \cdot f'(x_0) \cdot g'(x_0)}$
· f é costante es f é deur	able c f' = 0 overgre
· c = 12 1 3 deventile =	$(c_g)' = \dot{c}_g'$
caso più generale del prodot	
(f. f. f.)' = ? f. f. par le propre association?	
$(f_1, f_2, f_3)' = f_1' f_2 f_3 + f_3$	
Ex.: demone:	e alle volte auch per se he. Le soupre D
· fan x, Vxell J	devialele)
(x   x)' , 1. (nx + x · x/x	/
(ton x) = (cos x) =	$\frac{\cos \times \cos \times - \sin \times (-\sin x)}{\cos^2 x} = \frac{\cos^2 x + \sin^2 x}{\cos^2 x} \cdot \frac{1}{\cos^2 x}$
. sensucue ('cg. wether tam.  f'(x) = (x2)'+(e")' =	
f'(1). e+2 -3 g = (c+2)x+f(1)	
- (e+z)x+ e+ 1 - y . f(1)+f'(1)(1	r-1)
, e+++ (e+2) (	(-±) √
T. duiv. fu. compreshe  Sinus f. g due fu per our I g	of in internet of to
A punt in an elected devisable.  See f devive in re, g devis	- f(%)
-> gof dow x. (gof)'(x.) = g'(f(x.))	f'(x.)
Ls.: f, (x) = e^2	ę.
f, (x) . ex?  f(x) . x?  g(x) . ex  g(f(x)) . g o f . cx	deviv. V
g(f(x)) . g o f . c  l  f'(x). g'(f(x)) f'(x) = c x	
f <sub>2</sub> = e sin x  f' <sub>2</sub> = e sin x  (1' 1	
f3 (x) =  4 (1+x2)	
f's (s), 1/4 x2 2x	
$f_s(a) = (ab \times x)^3$ $f_s' = 3 cos^2 \times (-sin \times x)$ $f_s' = 4 lindown$	
Lapin estern.  T.: donn. In inversa.	
T: down for inverse  Sin f: (a, b) ->   2   inverbable,  Some demonstrate $x \in (a, b)$	2/2.F.(0) - 2-2
Syp. divided. $X_{i} \in (a, b)$ $f'(x_{i})_{p'} \circ $ $f^{-1} \text{ divided by } y_{i} \cdot f(x_{i})$	o for the form
$f^{-1} \stackrel{\text{decomble in } f(x_0)}{f'(x_0)} = \frac{f'(x_0)}{f'(x_0)}$ $f^{-1} \stackrel{\text{decomble y}}{f'(x_0)} = \frac{f'(x_0)}{f'(x_0)}$	tronsme of geo
pusa uella y pusa uel  Dom o	un anche tom a complementar
	f(x) - for a } ton a - 1 => 2+β = 2 (gentermente)
	f'(xo) - tom of