A SL BYP Cive de S-L BUP S F"+1 F=0, F-F(x) 02×21 Hol=0 3 f(1) - 2 f(1) = 0 Find e-vals and e-futions 1=0) f(x)=xx+p f'(x)=x SULN: flol=0 => (B=0) => f(x = ax f'(x = a 3 f(1)-2 f'(1) = 0 => 3x-2x=0=> (x=0) == x=0=> 1=0 kot an e-val. >0) f(x1=qcn va x +c, c: va x => f(x1=-c, va =: va x + c2 va cu va x f(0)=0 => C(=0 => (f(x)=c, s: VAX) f'(x) = c2 VA cn VAX 3 f(1) -2 f'(1)=0 => 3 & cm va: -2 de va cu va: =0 (touts = = TT) egu for + e-vals <0) let 1=-a², a>0 f(x)=c, conhax +cz sinhax f(x)=ac, sinhax + acz conhax f(01=0=> C1=0 => f(x)= (c2 such ax) fi(x) = a cz cnh ax 3f(1) -2f(1)=0 => 3 d2 suha -2 a d2 cocha =0 equ fu - e-vals: (tanha = \frac{2}{3}a) (a=\sqrt{-1}) first few solutions to Re egus are shown: 4= = = -4== X let x= 1] 1>0 a= J-2 STY a= Fd; =1.3 √λ2 = 4.4 √λ2 = 7.7, ..., √λn= (2n-1) π 5n ~ sin √λn x for n > 1 n large 1 = -1.69