(2) nom derivative of eax cos(box+c) Let y= eax Cos (bx+c) (+xa) all. " = y +3) 4, = e are [-b Sin (bx+c)] + a e ax cos (bx+c) Putting [a = rcoso] and [b = rsino], meget 4, = reax fcosocos (bxtc) - sind sin (bxc+c) 5 z reax cos (bx+c+d) Similarly y2 = 82 eax cos (bx+c+20) .: Yn = rneax cos (bx+c+no) Yn = (alt b2) 2 eax cos [botte + n + an ba) i.e., D' [earcos (brete)] = (a2+62) 2 earcos (bret etnten b) of az 19621 gc=0, then 42ex cosse and 4, 2 2 2 ex cos (oc +n (1/4)) nt derivative y: cos gx cos 3x = cos 3x + cos 2x  $=\frac{1}{2}$   $\int \cos(3\pi t + 3x) + (\cos(3\pi t - 2\pi))^{2}$ 

In the derivative  $y = \cos 9 \times \cos 3 \times \cos 3 \times = \cos 3 \times + \cos 9 \times \cos 3 \times = \frac{1}{2} \left[ \cos (3 \times + 3 \times) + ( \cos (3 \times - 3 \times) \right]$ By using  $\cos A \cos B = \frac{1}{2} \left[ \cos (A + B) + ( \cos (A - B) \right]$   $= \frac{1}{2} \left[ \cos 5 \times + \cos x \right]$   $y = \frac{1}{2} \left[ \cos 5 \times + \frac{1}{2} \cos x \right]$ Posser in the state of the state