3.2 DIFFERENTIABILITY (18)
f(x) IS SAID TO BE DIFFERENTIABLE
AT C IF f'(x) = f'(x) AND IS FINITE  x > c x > c+
X+C X+C+
(THE TANGENT SWPES ARE EQUAL
BEFORE AND AFTER C.)
AND f(x) IS CONTINUOUS AT C.
F(x) TY=2X F(x) IS NOT DIFFERENTIABLE  Y'=2 AT X=0, BECAUSE THE  DERIVATIVE CHANGES ABRUPTLY.
TY'22 AT X=0, BECAUSE THE
VEX DERIVATIVE CHANGES ABRUPTLY.
$f'(x) = 0$ $f'(x) = 2$ $0 \neq 2$
g(x) \$ g(x) IS NOT DIFFERENTABLE AT X @
BECAUSE g(x) IS NOT
CONTINUOUS.
(DIS CONTINUITY)
FUNCTIONS ARE NOT DIFFERENTIABLE
IN THE FOLLOWING CASES ALSO.
p.106 1 P.105
VERTICAL TANGENT CUSP ASYMPTOTE
HOMEWORK P. 111 -> 1-11 AU, 13, 15, 17, 19, 21