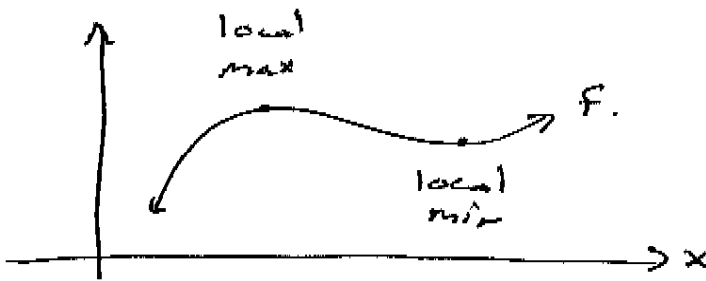
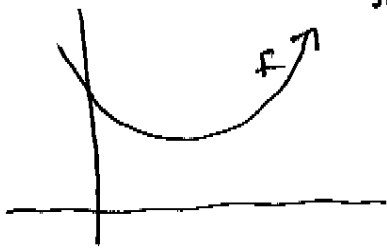


## 2.5: Extremes & Quadratics

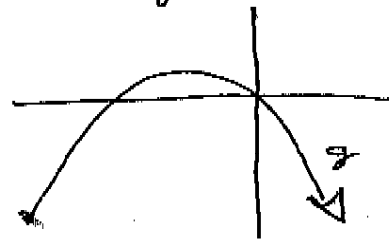
2.5
1/



Quadratics have one extreme: Dictated by the sign of the leading coefficient.



or



ex1: Find the extreme of  $f(x) = -x^2 - 4x + 9$   
by completing the square. (E-D&R)

ex2: Find the extreme of  $g(x) = 3x^2 + 6x - 7$   
by ... (E-D&R).

ex3: Find the extreme of  $h(x) = ax^2 + bx + c$

ex4: Find the extreme of  $i(x) = -3x^2 + 2x - 4$

ex5: Find the extremes of  $j(x) = x^3 - x$