

- Solve and graph the solution set on a number line: $x^2 \leq -4x$

START BY WRITING $x^2 + 4x \leq 0$

$$\underbrace{x(x+4)}_{f(x)} \leq 0$$

GRAPHICAL APPROACH ...

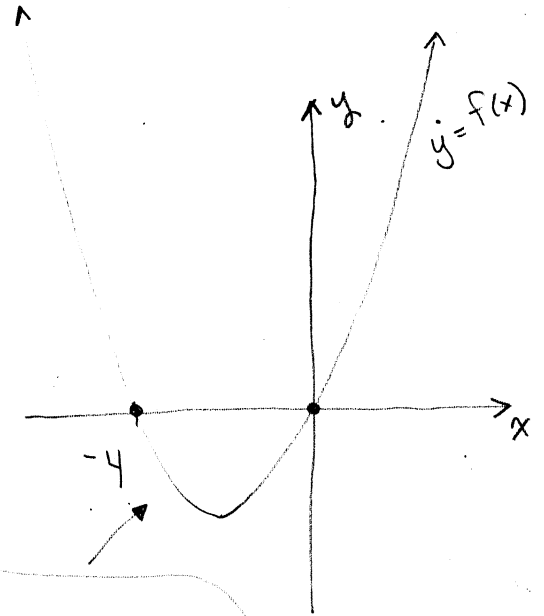
ZEROS: $x=0$ MULT 1

$x=-4$ MULT 1

LEADING TERM: x^2

END BEHAVIOR: UP LEFT / UP RIGHT

GRAPH LOOKS
ROUGHLY
LIKE

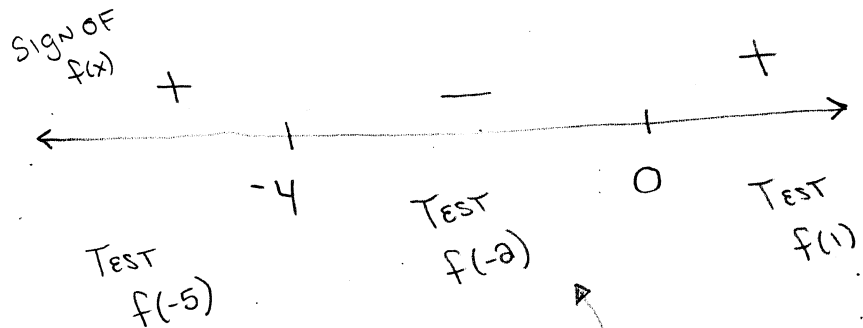


$f(x) \leq 0$
ON $[-4, 0]$

SIGN CHART APPROACH ...

ZEROS: $x=0$

$x=-4$



$f(x) \leq 0$ ON $[-4, 0]$