Ex. Sketch a graph of the polynomial function g given the following information:

$g(x)$ is positive on the intervals $(-7,-1)$ and $(1,5)$ → above

$g(x)$ is negative on the intervals $(-\infty,-7)$, $(-1,1)$ and $(5,\infty)$ → below

up $g(x)$ is increasing on the intervals $(-\infty,-4)$ and $(0,3)$

down $g(x)$ is decreasing on the intervals $(-4,0)$ and $(3,\infty)$

x-values

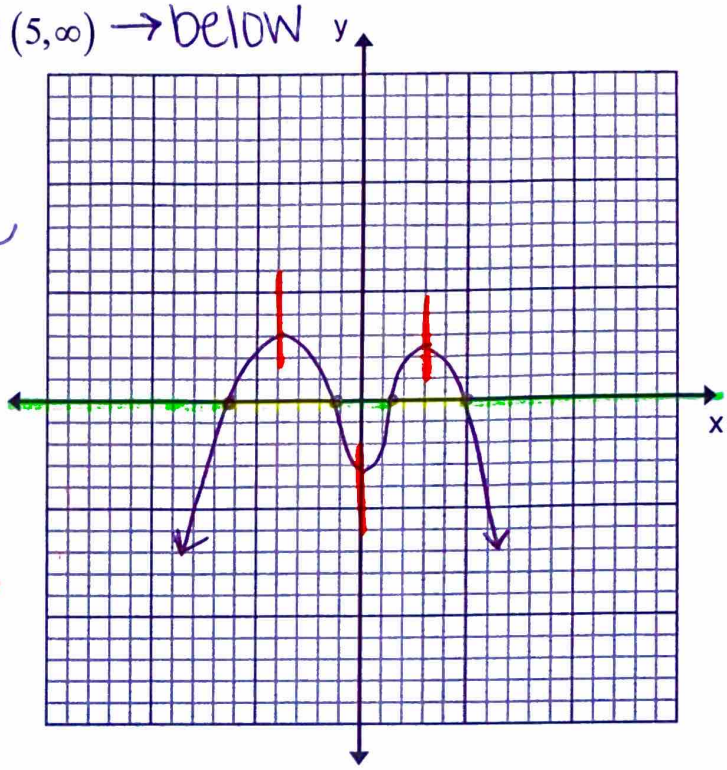
* y's don't matter

#1: color code pos & neg.

#2: find turning pts → "walls"

↳ switch inc & dec

#3: graph!



Ex. Sketch a graph of the polynomial function h given the following information:

$h(x)$ is positive on the intervals $(-12,0)$ and $(9,\infty)$

$h(x)$ is negative on the intervals $(-\infty,-12)$ and $(0,9)$

$h(x)$ is increasing on the intervals $(-\infty,-5)$ and $(6,\infty)$

$h(x)$ is decreasing on the interval $(-5,6)$