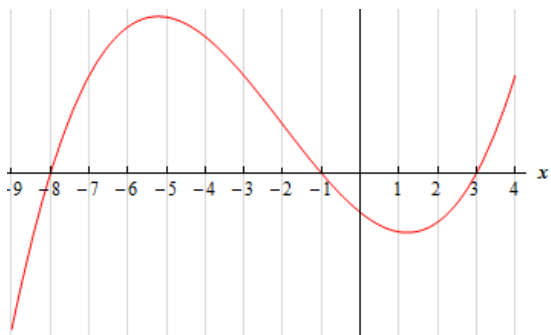


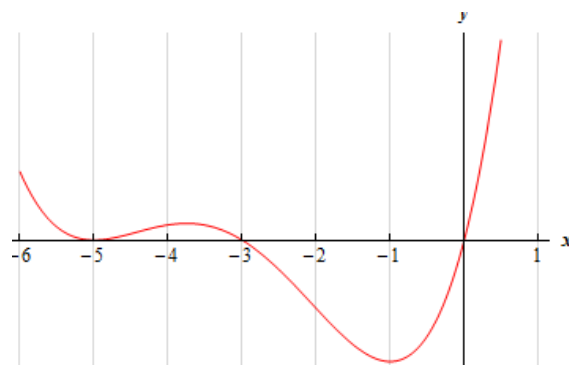
1st Deriv # Line Practice

1. These are graphs of the derivative of a function. Use the graphs to determine the open intervals on which original function is increasing or decreasing.

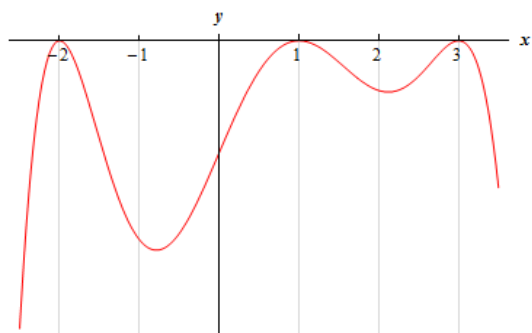
a)



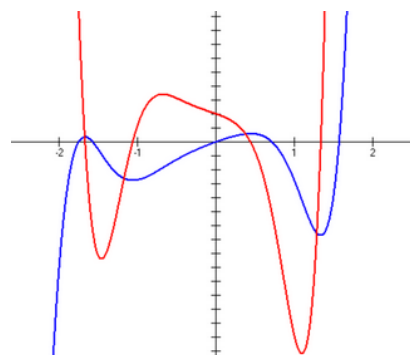
b)



c)



d) Which is the derivative & which is the original function?



2. Find where $f(x)$ is increasing, decreasing, and the coordinates of the relative maximum and relative minimums.

a) $f(t) = t^3 - 15t^2 + 63t + 3$

b) $h(m) = (m + 4)^3(m - 2)$

1st Deriv # Line Practice

c) $w(x) = \frac{x}{(x+1)^2}$, $w'(x) = \frac{1-x}{(x+1)^3}$

d) $f(x) = \frac{x^2+4}{x^2-4}$, $f'(x) = \frac{-16x}{(x^2-4)^2}$

e) $f(x) = \frac{2x-x^2}{x^2-2x+1}$, $f'(x) = \frac{-2}{(x-1)^3}$

f) $f(x) = \frac{9x}{(3x+1)^2}$, $f'(x) = \frac{9(1-3x)}{(3x+1)^3}$