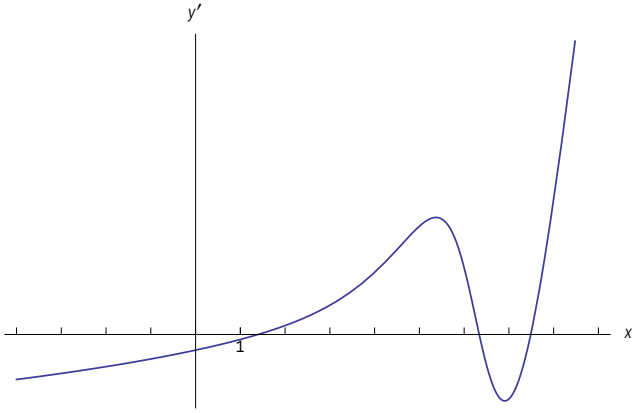
HOMEWORK 18
APPLIED CALCULUS
DUE 2013-11-07

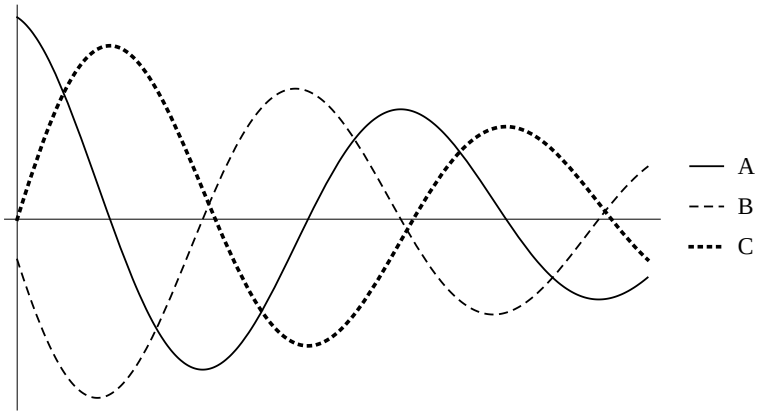
Show your work!

(1) The picture below is a graph of $y' = f'(x)$, **not** $y = f(x)$. It is OK if the endpoints of your intervals are only approximate.



(a) Where is $f(x)$ increasing? ... decreasing? Explain.
(b) Where is $f(x)$ concave up? ... concave down? Explain.
(c) Sketch a possible graph of $y = f(x)$.

(2) The picture below shows the graph of a function, its derivative, and its second derivative.



Which is which? Explain how you know, making specific reference to increasing / decreasing behaviour and concavity.

- **Ten** book problems: #13.1.9, 16, 17, 19, 24, 25, 26, 35, 39, 43.