Lecture Handout #15: Oct 20

Quotient Rule

$$H(x) = \frac{f(x)}{g(x)} \qquad H'(x) = \frac{\square \cdot \square - \square \cdot \square}{\square}$$

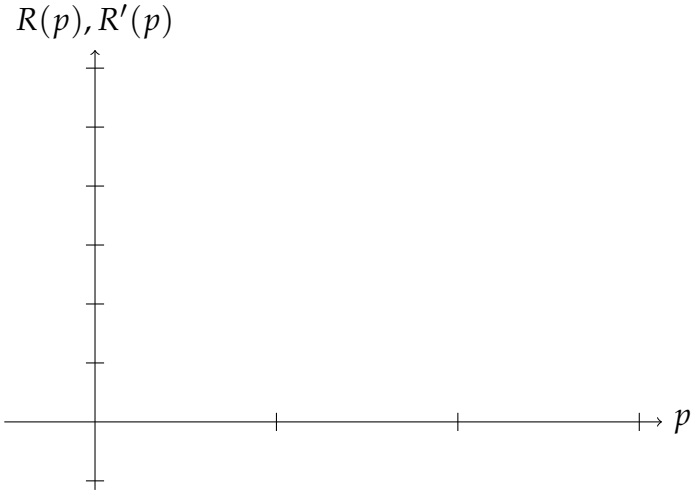
$H(x)$	$f(x)$	$g(x)$	$f'(x)$	$g'(x)$	$H'(x)$
x/e^x	x	e^x			

Applications of Derivative Rules

Daily revenue from sale of an iPhone game at price p: quantity $q(p) =$ _____

Revenue: $R(p) =$ _____ Marginal revenue: $R'(p) =$ _____

Sketch graphs of $R(p)$ and $R'(p)$ on the same axes:



For which value of p does $R(p)$ reach a maximum value?

What happens to $R'(p)$ there?