PRINT Your Name:____________________

Quiz for October 6, 2005

Let $f(x) = 2\sin^2 x$. Find $f'(x)$.

ANSWER: We haven't done the chain rule yet, so I will view f as a product with the first equal to $2\sin x$ and the second equal to $\sin x$. The derivative of a product is the first times the derivative of the second plus the second times the derivative of the first:

$$(2\sin x)(\cos x) + (\sin x)(2\cos x) = \boxed{4\sin x\cos x}.$$