Your opportunity to schedule a Midterm Re-Take is expiring!

Make your request or forever hold your peace!

Needed to do some rescheduling to give you guys more of a Thanksgiving Break.

No Assignments have been moved up. Some have been moved back a little.

Find the derivative of the function.

19. $g(x) = \int_{4x}^{6x} \frac{u^2 - 1}{u^2 + 1}\, du$ $\left[\text{Hint: } \int_{4x}^{6x} f(u)\, du = \int_{4x}^{0} f(u)\, du + \int_{0}^{6x} f(u)\, du \right]$

$\int_a^b = \int_a^0 + \int_0^b = -\int_0^a + \int_0^b$

$g(x) = \int_{4x}^{0} \sim + \int_0^{6x} \sim = -\int_0^{4x} \frac{u^2-1}{u^2+1}\, du + \int_0^{6x} \frac{u^2-1}{u^2+1}\, du$

$\Rightarrow g'(x) = \left(\frac{(4x)^2-1}{(4x)^2+1}\right)(4) + \left(\frac{(6x)^2-1}{(6x)^2+1}\right)(6)$

$\frac{dg}{d(4x)} \cdot \frac{d(4x)}{dx} + \frac{dg}{d(6x)} \cdot \frac{d}{dx}(6x)$