Chapter 9, Problem 22.

An alternating voltage is given by $v(t) = 55\cos(5t + 45°)$ V. Use phasors to find

$$10v(t) + 4\frac{dv}{dt} - 2\int_{-\infty}^{t} v(t)dt$$

Assume that the value of the integral is zero at $t = -\infty$.