Homework 26. *Chapter 15.*

8.1 $G(t,t') = \sin(\omega(t-t'))$ if $t > t'$, 0 otherwise.
8.2 $y = (\sin(\omega t) - \omega t\cos(\omega t))/2\omega^2$
8.3 $e^{-t}/(1+\omega^)) + e^{\omega t}(1-\omega)/2(1+\omega^2)\omega + e^{-\omega t}(1+\omega)/2(1+\omega^2)\omega$
8.11 $y = \sin(2x)/3$
8.15 $x\sinh(x) + \cosh(x)\log(\cosh(x))$ (plus any linear combination of $\sinh(x)$, $\cosh(x)$).
8.16 $y = -x\log(x) - x - x\log(x)^2/2$