**PP7.6** Express the current pulse in terms of the unit step. Find its integral and sketch it.

\[ i'(t) = 10u(t) - 20u(t-2) + 10u(t-4) \]

Use (7.34) to get

\[
\int i'(t) \, dt = \int 10u(t) \, dt - \int 20u(t-2) \, dt + \int 10u(t-4) \, dt
\]

\[
\int i'(t) \, dt = 10r(t) - 20r(t-2) + 10r(t-4)
\]