Ex: Find \( v(t) \) if \( V(s) = \frac{16}{s^2 + 10s + 25} \).

**SOL’N:** We first factor the denominator.

\[
s^2 + 10s + 25 = (s + 5)^2
\]

We can take the inverse transform immediately for this form of denominator:

\[
v(t) = L^{-1} \left\{ \frac{16}{(s + 5)^2} \right\} = \left[16te^{-5t}\right]u(t)
\]

**NOTE:** We multiply by \( u(t) \) to suggest that nothing is known about the signal before time zero.