Ex: Find $\lim\limits_{t\to\infty} v(t)$ if $V(s) = \dfrac{s^2 + 4}{(s+3)^3}$.

Sol'n: We use the final value theorem. Note that the theorem applies, since we have poles with negative real parts:

$$\lim_{t\to\infty} v(t) = \lim_{s\to 0} sV(s) = \lim_{s\to 0} s\,\frac{s^2 + 4}{(s+3)^3} = 0 \cdot \frac{4}{3^3} = 0$$