Calculus For Engineers

Inverse Laplace Transforms

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Find the Inverse Laplace Transform of the following expression

$$G(s) = \frac{7}{s^5}$$

The Laplace transform $G(s)$ is structured in the form:

$$\frac{n!}{s^{(n+1)}}$$

Relevant entry from Laplace Transform formula sheet (entry no. 3):

$$L[t^n] = \frac{n!}{s^{(n+1)}}$$

Inverse Laplace Transforms

$$L[t^4] = \frac{4!}{s^5} = \frac{24}{s^5}$$

$$k \times L[t^4] = k \times \frac{4!}{s^5} = \frac{24k}{s^5}$$