

## Computing the Laplace Transform

**Quiz:** What is  $\mathcal{L}((1+t)^2)$ ?

**Choices:**

- a.  $(1/s + 1/s^2)^2 = 1/s^2 + 2/s^3 + 1/s^4$ .
- b.  $1/s + 2/s^2 + 2/s^3$ .
- c.  $(1+t)(1/s + 1/s^2)$ .
- d. None of the above.

**Answer:** (b):  $\mathcal{L}((1+t)^2) = \mathcal{L}(1+2t+t^2) = \frac{1}{s} + \frac{2}{s^2} + \frac{2!}{s^3}$ .

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18.03SC Differential Equations

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