

Name:

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MATH 3306

Quiz 6.3

Table 6.2.1 on page 321 may be used. You may use the Apart command in Mathematica, or other technology to help with any Partial Fraction Decomposition.

(1) Find the Laplace Transform of the following function.

$$f(t) = t^2 u_3(t)$$

(2) Find the inverse Laplace Transform of the following function.

$$F(s) = \frac{4(s^2 + 1)}{s(s^2 + 4)} e^{-3s}$$