| THE UNIVERSITY OF TEXAS AT SAN ANTONIO | QUIZ \# 2 |
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| ANALYSIS AND DESIGN OF CONTROL SYSTEMS | February 4, 2016 |

## Name:

The Laplace transform $F(s)$ of $f(t)$ is given by:

$$
F(s)=\int_{0}^{\infty} e^{-s t} f(t) d t
$$

Applying the definition, find the Laplace transform of the following function:

$$
f(t)=2 t e^{7 t}+4 \cos (25)
$$

You should only apply the definition, explicitly, and use integration by parts:

$$
\int u v^{\prime}=u v-\int u^{\prime} v
$$

## Your Solution:

