Name:_____RUID:_____

Email:_____

(1) (10 pt) Find the Laplace transform of the following piecewise function:
$$f(t) = \begin{cases} t & 0 \le t < 2 \\ 4 - t & 2 \le t < 4 \\ 0 & t \ge 4 \end{cases}$$

(2) (10 pt) Find the inverse Laplace transform of
$$F(s) = e^{-s} \frac{s}{(s^2 + 4)(s + 1)^2}$$