Math 002A Assignment 7.1 Last name_____1st _____

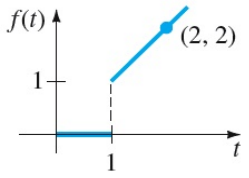
DIRECTIONS To receive full credit, you must provide complete legible solutions to the following problems in the space provided. Be sure to supply all the details that support your solutions

Use the definition of find the Laplace transform of

1. $f(t) = t^2$ Ans_____

2. $f(t) = \begin{cases} 0 & 0 \le t < \pi/2 \\ \cos t & t \ge \pi/2 \end{cases}$ Ans_____

3. $y = f(t)$ in the graph. Ans_____



4. $f(t) = te^{2t}$ Ans_____

5. Use linearity of the Laplace transform and the previous results from this the assignment to find the Laplace transform of g.

$g(x) = 3t - 2t^2 + te^{3t}$ Ans_____