QUIZ 8 - MATH 310 YOUR NAME:

Read each problem **very carefully** before starting to solve it. Each problem is worth 5 points. It is necessary to show **all** your work. Correct answers without explanations are worth 0 points. HAPPY HALLOWEEN!!

1. (a) Find the four complex fourth roots of z = -1.

(b) Find the general solution of the differential equation

 $y^{(4)} + 16y = 20t^2$

and express it in terms of real value functions only.

2. Compute the improper integral $\int_0^\infty 5te^{-5t}dt$.