Math 276 Discussion Worksheet 11

1. Express the following complex numbers in the form $a + bi$.

$$\textbf{a. } (1+i)^{10} \qquad\qquad \textbf{b. } (1+i)^{-4}$$

2. Find all complex numbers z that solve the equation.

$$\textbf{a. } z^4 = -1 \qquad\qquad \textbf{b. } z^2 - 2z + 10 = 0 \qquad\qquad \textbf{c. } e^z = i$$

3. Evaluate the following integrals.

$$\textbf{a. } \int te^t \, dt \qquad\qquad \textbf{b. } \int xe^{x^2} \, dx$$